

Environmental Impact Statement for Liquid Waste Facility and Depot at 14 Rayben Street, Glendenning









March 2016 Version 1.0





CERTIFICATION

Version	Description	Date	Checked by:	Approved by:
1.0	Environmental Impact Statement for Liquid Waste Facility and Depot at 14 Rayben Street, Glendenning	Mar 16	Michael McMahon	Ray Duggan
The information provided in this EIS and Appendices is accurate at the date of preparation				

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Environmental Planning and Assessment Regulation 2000 Schedule 1 – Forms, Part 1 - Development applications

The following information is included in this EIS:		
(a) the name and address of the applicant,	J.J. Richards & Sons Pty Limited 3 Grant Street PO Box 235 Cleveland QLD 4163	
(b) a description of the development to be carried out,	Liquid Waste Facility and Depot – Waste or resource management facility (resource recovery facility, and waste or resource transfer station), and Depot – as defined under the BLEP 2015	
(c) the address, and formal particulars of title, of the land on which the development is to be carried out,	14 Rayben Street Glendenning Lot 123 DP 870988 (refer to Appendix 1)	
(d) an indication as to whether the land is, or is part of, critical habitat,	The land is not critical habitat, or part of critical habitat (refer to Ecological Assessment - Appendix 13)	
(e) an indication as to whether the development is likely to significantly affect threatened species, populations or ecological communities, or their habitats, unless the development is taken to be development that is not likely to have such an effect because it is biodiversity compliant development,	The development is unlikely to significantly affect threatened species, populations or ecological communities, or their habitats (refer to Ecological Assessment Appendix 13 and Environmental Assessment and Mitigation of Potential Impacts in Section 6 of this EIS)	
(ea) for biodiversity compliant development, an indication of the reason why the development is biodiversity compliant development,	Not applicable - The development is not for biodiversity compliant development	
(f) a list of any authorities from which concurrence must be obtained before the development may lawfully be carried out or from which concurrence would have been required but for section 79B (2A) or 89J,	A controlled activity approval (s.91 <i>Water</i> <i>Management Act 2000</i>) would have been required but for Section 89J(g) of the Act. Note: The development is listed under Schedule 3 of the <i>SEPP (Infrastructure) 2007</i> (<i>Traffic generating development to be</i> <i>referred to the RTA</i>)	
(g) a list of any approvals of the kind referred to in section 91 (1) of the Act that must be obtained before the development may lawfully be carried out,	An environment protection licence is required under Chapter 3 of the <i>Protection of</i> <i>the Environment Operations Act 1997</i> – as discussed in Section 5.5 of this EIS	
(g1) in the case of State significant development, a list of any authorisations that		



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must be provided under section 89K of the Act in relation to the development,	
(h) the estimated cost of the development,	capital investment value is \$6,934,126 - refer to the Quantity Surveyors Report
(h1) in the case of State significant development, the capital investment value of the development,	Appendix 9
(i) evidence that the owner of the land on which the development is to be carried out consents to the application, but only if the application is made by a person other than the owner and the owner's consent is required by this Regulation,	Owner's consent is attached
(<i>j</i>) a list of the documents accompanying the application.	A full list of all documents accompanying this EIS is included in the following Tables (i.e. Figures , Drawings and Appendices)
This EIS and documents accompanying this EIS meet the relevant requirements stated in Schedule 1, Part 1 Clause 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> ; and the relevant requirements of SEARs (Ref: SSD 6767) issued for the Project - refer to	

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16027 - SKE01	External Lighting Plan



EIS - APPENDICES

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4	Pre-lodgement Minutes and Correspondence
5	Secretary's Environmental Assessment Requirements (SEARs - SSD 6767)
6	SEARs SSD 6767 - Compliance Matrix
7	Stakeholder Consultation
8	Grease Trap Waste Technical Information, Sampling Plan and SDSs
9	Quantity Surveyor Report
10	Geotechnical Investigation
11	Integrated Water Cycle Management Strategy
12	Air and Noise Quality Assessment
13	Ecological Assessment
14	Traffic Impact Assessment
15	Hazard Identification and Risk Assessment
16	Draft Construction Environmental Management Plan
17	Extracts from Site Based Management Plan, including Corporate Policies

1 Executive Summary

This Environmental Impact Statement (EIS) has been prepared to support a Development Application by J.J. Richards & Sons Pty Limited for the establishment of a Liquid Waste Facility and Depot¹ at 14 Rayben Street, Glendenning NSW 2761. The site is described as Lot 123 in DP 870988, with a total area of $7,214m^2$.

The proposed Liquid Waste Facility is described in detail in **Section 4** of this EIS, with new facilities proposed to:

- Store and treat grease trap waste that is liquid waste (K110 type waste*) as defined in the *Protection of the Environment Operations Act 1997* (POEO Act);
- Store food waste that is liquid waste (K120 type waste*) as defined in the POEO Act for aggregation and transport for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Store used oil (J100 type waste*) including mineral oils unfit for their original intended use, oil filters, transformer fluids (excluding PCB's), waste hydrocarbons for resource recovery, aggregation and transport to re-refining and other facilities for treatment and reuse;
- Store and treat industrial oily water (J120 type waste* waste oil / hydrocarbons mixtures / emulsions in water). This treatment will generally involve separating used oils, hydrocarbons and solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant used oil will be stored for resource recovery, aggregation and transport to re-refining and other facilities for treatment;

Equipment for unloading, treatment, storing and loading of K110 liquid grease trap and K120 food waste will be located within the Organic Waste Building. Equipment for unloading, treatment, storing and loading of J100 used oil and J120 industrial oily water, will be located within the Used Oil Roof Structure (refer to **Section 4** of this EIS).

Liquid waste will be collected in tankers from premises throughout Sydney and transported to the proposed facility for storage, resource recovery, aggregation and required treatment. Loading and unloading areas will have external bunding and inground sumps for adequate spill control.

Hours of operation for the site are proposed development will be 4am to 9pm Monday to Saturdays, with the office component being from 7am to 6pm Monday to Saturdays. The nature of the waste management industry however necessitates works outside of these hours, including vehicles leaving and returning to the site, occurring.

¹ as defined under the BLEP 2015 as a waste or resource management facility (resource recovery facility, and waste or resource transfer station), and depot.

The site is currently developed for industrial purposes, fenced and has established perimeter landscaping which provides effective visual screening to the proposed site infrastructure and activities (refer **Figure 4.2** and **Drawing RI456-D0-01**). There is an office and an industrial building in the south-western corner and a large expanse of concrete pavement in the eastern and northern parts of the site, which is currently used for vehicle parking and bin storage. The existing industrial building will be demolished and some existing concrete pavement will be removed to allow for the construction of these works.

The development is *State significant development* (SSD) and subject to assessment under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979*, with this EIS having been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEAR SSD 6767 – issued 4 December 2014 – refer to **Appendix 5**) and on the basis of:

- Including all relevant documentation required under the *Environmental Planning and Assessment Regulation 2000* Schedule 1 – Forms, Part 1 -Development applications; and
- Addressing all relevant requirements contained in the SEARs as provided for in the SEARs Compliance Matrix at **Appendix 6** and supporting specialist assessments (**Appendices 10-15**).

Whilst an environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* will be required, SSD proposals are not *integrated development* and do not require the concurrence of other state agencies. A separate application will be made following determination of this application, as needed.

Pursuant to the Clause 32 (*Waste management facilities or works*) and Clause 27 of Schedule 3 (*Petroleum works*) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*, the proposed development (but for being declared SSD) would otherwise have also been *designated development*.

The proposed development site is located on land owned by J.J. Richards & Sons Pty Limited (refer **Appendix A**) and currently zoned *IN1 General Industrial* under the *Blacktown Local Environmental Plan 2015* (BLEP 2015). Land adjacent to the east, west and south is zoned *IN1 General Industrial* (BLEP 2015), with the nearest residential land located to the north around 420m (Lamb Street) and to the east around 880m (Knox Road). Land directly to the north is zoned *SP2 Infrastructure* and is a drainage reserve. The proposed use (other than for it being SSD) is permissible in the *IN1 General Industrial zone* under the BLEP 2015.

Need for the project has been considered in Section 2.7.1 of this EIS, with a number of alternatives further considered and summarised in Sections 2.7.2 to 2.7.5. Stakeholder consultation is considered in Section 2.8 of this EIS with details of that consultation also included at **Appendix 7**.

This EIS has been prepared having regard to physical, economic and social considerations and the principles of Ecologically Sustainable Development.

Environmental assessments and a range of mitigation measures will be incorporated into the design and operation of the facility (refer **Section 6**). Supporting specialist assessments have been provided in **Appendices 10-16**, including a Geotechnical Investigation; an Integrated Water Cycle Management Strategy; an Air and Noise Quality Assessment; an Ecological Assessment (of the adjoining drainage reserve / waterway); a Traffic Impact Assessment; a Hazard Identification and Risk Assessment; and a Draft Construction Environmental Management Plan.

The environmental assessment process has been used to drive the development of the site and ensure operations will be sustainable and create minimal disruption to the local community. There were no significant environmental impacts identified during the preparation of the EIS that cannot be mitigated by appropriate mitigation measures and management strategies.

Key attributes on the proposed development include:

- All receival, treatment and load out operations will be undertaken within buildings;
- Loading areas will have external bunding and inground sumps for adequate spill control;
- All storage tanks and treatment equipment will be within bunded tank farms;
- There are significant buffer distances from the proposed development to residences;
- There is a low impact on the physical environment (land, soil and water) as demonstrated in this EIS and in the operation of similar Liquid Waste Facilities;
- A brownfield redevelopment of existing industrial land is likely to have lower social and environmental impacts than a greenfield development where potential alternative uses of the site and surrounding sites may be less well established;
- This upgraded facility will also better respond to increasing demands from industry and community expectations for efficient liquid waste storage, treatment and recovery;

Detailed environmental management plans have been prepared for the construction and operational phases of this development and such includes monitoring, record keeping, audit and training procedures and site induction programs for all employees and contractors. The proposed development will satisfy all legislative requirements, including state environmental planning policies, and local and regional plans and policies.

2 Introduction

2.1 Proponent

J.J. Richards & Sons Pty Ltd (J.J. Richards) was established in 1932 and is one of the largest Australian owned waste management companies in Australia. The company is owned and managed by the family of the founder, Joseph John Richards, who won the first refuse and sanitary collection contract in Murwillumbah Shire in 1932.

The company has come a long way since those days and today the company has operations throughout Queensland, New South Wales, Australian Capital Territory, Victoria and New Zealand. J.J. Richards has a fleet of over 1,600 vehicles and employs over 2,000 people.

J.J. Richards performs a variety of solid, hazardous and liquid waste collection services for over 80,000 commercial customers and performs 2 million domestic garbage, recycling, sanitary and green waste collections services per week under contract for 42 local authorities throughout Eastern Australia.

The Company has operated its own engineering facilities since 1950, constantly applying vision and innovation to practice. This, combined with a passionate commitment to customer satisfaction, has resulted in some of the most outstanding developments in the waste management industry worldwide.

J.J. Richards has diversified into such specialised areas as:

- Materials Recovery Facility design and construction;
- Transfer Station design, operation and bulk haulage operations;
- Waste management plant and equipment design and engineering (J.J. Richards Engineering Pty Ltd);
- Regulated waste collection and treatment (Regwaste Australia);
- Environmental education and technical services consultancy (EnviroCom Australia);
- Waste disposal/beneficial reuse initiatives (The Ti Tree BioEnergy Facility converts general waste into clean energy using the bioreactor process and Southern Oil's Used Oil Recycling Facilities at Wagga Wagga and Gladstone converts used oil into commercial quality oils);

Environmental, quality and safety policies of J.J. Richards & Sons Pty Ltd are provided in **Appendix 17**.

Waste management is an ever-changing field requiring continual improvement in waste management technology, reduction of the impact of waste on the workplace and the environment, and the provision of quality services, whilst minimising customer costs. This is not possible without exceptional customer service and a team of valued, dedicated and trusted employees.

J.J. Richards offers its staff and customers a balance of innovation, flexibility and family values. This is a unique combination that will be the basis of continued growth and development into the 21st Century.

2.2 Background

In order to meet future commercial and environmental demand, J.J. Richards & Sons Pty Ltd proposes to establish a Liquid Waste Facility (as described in Section 2.3) at its existing depot site at 14 Rayben Street Glendenning. This site was developed in the 1990s and has since been used as a transport depot, including workshop and ancillary offices. J.J. Richards also has a transport depot, including workshop and ancillary offices at 7 Rayben Street (opposite this site). Previous approvals for 14 Rayben Street are provided in **Appendix 2**. These include:

- SA-91-177 Subdivision Two Industrial Blocks;
- DA-93-263 Development Approval for Truck Maintenance Workshop, Truck Holding Yard and Ancillary Offices;
- BA-93-4570 Building Approval;
- IA-97-3020 Integrated Approval for Above Ground Diesel Tank;

J.J. Richards currently operate a similar (licenced) grease trap treatment plant at Units 23-24 / 20 Tucks Road, Seven Hills NSW 2147. Activities currently undertaken in this facility will be transferred to the proposed development site. A copy of the existing EPA Licence (No. 10870) and its Trade Wastewater Consent for the Tucks Road, Seven Hills site are provided at **Appendix 3**.

J.J. Richards, on its own and through Southern Oil Collection Services also operates used oil storage and aggregation facilities throughout New South Wales, Queensland, Victoria and South Australia. These facilities provide feedstock for Southern Oil and Northern Oil's used oil re-refineries at Wagga Wagga in NSW and Yarwun in central Queensland (refer Section 2.5).

J.J. Richards has also recently acquired an interest in the liquid food waste collection business of Pulpmaster Australia. This provides for the onsite (at the customer's premises) processing of food waste for bulk collection. Such is then aggregated and transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region.

2.3 **Project Overview**

The proposed Liquid Waste Facility will:

- Store and treat grease trap waste that is liquid waste (K110 type waste*) as defined in the POEO Act. This treatment will generally involve separating liquids from solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant solids or sludge will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region. The Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Treated Grease Trap Waste Exemption 2014) exempts a consumer of treated grease trap waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of that waste to land, provided the consumer complies with the conditions of this exemption;
- Store food waste that is liquid waste (K120 type waste*) as defined in the POEO Act for aggregation and transport for beneficial reuse in the cultivation of feed crops on farms in the Sydney region. The Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Liquid Food Waste Exemption 2014) exempts a consumer of liquid food waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of this exemption;
- Store used oil (J100 type waste*) including mineral oils unfit for their original intended use, oil filters, transformer fluids (excluding PCB's), waste hydrocarbons for resource recovery, aggregation and transport to re-refining and other facilities for treatment and reuse;
- Store and treat industrial oily water (J120 type waste* waste oil / hydrocarbons mixtures / emulsions in water). This treatment will generally involve separating used oils, hydrocarbons and solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant used oil will be stored for resource recovery, aggregation and transport to re-refining and other facilities for treatment;

The above asterisked waste types (J100, J120, K110 and K120) are based on the 'NEPM' Controlled Waste NEPM waste codes. NEPM is a National Environment Protection Measure made by the National Environment Protection Council (NEPC), a statutory body consisting of the environment ministers from each State and Territory, and the Commonwealth.

Liquid waste for the facility will be collected in tankers from premises throughout Sydney and transported to the proposed facility for storage, resource recovery, aggregation and possibly treatment.

Loading and unloading areas will have external bunding and inground sumps for adequate spill control.

Equipment for unloading, treatment, storing and loading of K110 liquid grease trap and K120 food waste will be located within the Organic Waste Building. The bunded tank farm within this building will also provide spill protection for the following equipment:

- Solids strainer;
- Vacuum pump;
- 30 kL Vacuum Tanks;
- Carbon filter;
- Dissolved Air Flotation (DAF) unit and enclosure;
- Associated pipework and valves;

Equipment for unloading, treatment, storing and loading of J100 used oil and J120 industrial oily water, will be located within the Used Oil Roof Structure. The bunded tank farm within this structure will also provide spill protection for the following equipment:

- Strainer;
- Pumps;
- Tanks;
- Dissolved Air Flotation (DAF) unit;
- Associated pipework and valves;

The site is currently fenced and has established perimeter landscaping which provides effective visual screening to site infrastructure and activities (refer **Figure 4.2** and **Drawing RI456-D0-01**). There is an office and an industrial building in the south-western corner and a large expanse of concrete pavement in the eastern and northern parts of the site, which is used for vehicle parking and bin storage.

The existing industrial building will be demolished and some existing concrete pavement will be removed to allow for the construction of these works.

There will be no discharge of process liquids or sludges from the facility to the northern drainage channel or from the site, other than to sewer etc as described above.

2.4 **Objectives of Report**

This Environmental Impact Statement has been prepared to satisfy the Secretary's Environmental Assessment Requirements (SEARs – refer **Appendices 5 and 6**). Its objectives are to:

- Provide a brief history of J.J. Richards & Sons Pty Ltd;
- Summarise existing site activities and approvals;
- Describe the site and adjoining land uses;
- Describe the proposed infrastructure and operations;
- Describe the proposed environmental mitigation measures associated with this facility;
- Address planning and statutory issues associated with this facility;
- Provide stakeholders with information with respect to this development.

2.5 Used Oil Re-refining

2.5.1 Wagga and Yarwun Re-refining Facilities

Southern Oil Refinery (SOR) and Northern Oil Refinery (NOR) operate used oil rerefineries at Wagga Wagga, NSW (refer **Figure 4.40**) and Yarwun, Queensland respectively. These re-refineries produce a range of quality base oil products all recovered from previously used lube oils, rather than from crude oil as at traditional oil refineries. These re-refineries also produce a range of fuel oils as by-products.

Manufacturing quality base oils by re-refining used lube oil has significant environmental benefits over refining crude oil to the same specifications. Tests have demonstrated that SOR oils are "as good as and in some specific ways better than base oils made from crude oil".

The SOR/NOR Vision for Lube to Lube Re-Refining is:

- That the inherent resource value of used lubricating oils is recovered and realised for future applications, which fully utilise the unique properties of the resource;
- That the necessary collection and re-refining infrastructure will operate with minimal environmental impact, positive community benefit, and sustainable profitability, exceeding wherever possible our stakeholder expectations.

2.5.2 **Re-refining Process**

The used oil re-refining process (SOR process) at the Wagga Wagga and Yarwun oil re-refining facilities in part replicates the original processes that crude oil distillates undergo in a conventional base oil refinery, but with special emphasis on purifying the used oil of:

- Degradation products of lube oil additives;
- Condensed transport fuels (naphtha and diesel) from cold start engine usage;
- Complex polycyclic hydrocarbons formed in combustion processes such as polycyclic aromatics/polyaromatic hydrocarbons, and dioxins/furans as well as any minor quality control breaches within the collection and consolidation phases such as chlorinated solvents (e.g. TCEs), and coolant.

The principle of multiple unit operations has been found to give optimum controllability of each stage to ensure overall process performance is optimised with minimum contamination between stages. The SOR used oil re-refining process is made up of four main stages as follows:

- Used Oil Stabilisation and Dewatering Used Oil is chemically active due to the presence of water (typically up to 10%) and the degradation products of the various chemical additives in lube oils leading to a risk of process corrosion and reactivity of the various products, and fouling of various process equipment items;
- Multi-stage Evaporation The stabilised and dewatered used oil passes through a number of vacuum evaporation stages to separate the distillate fractions from residue, and fuel oils;
- Fractionation Continuous multistage distillation is a process whereby the various lube distillate fractions are separated through continuous vaporisation, stripping and rectification under vacuum. From this part of the SOR re-refining process, three well-defined distillate product streams are produced for further processing in the solvent plant;
- Solvent Treating The unique SOR process for achieving International Standard base oil quality uses a combination of solvent extraction and recovery techniques to remove contaminants that could adversely affect the safety and performance of the product. The solvent used is NMP which is commonly used in the pharmaceutical and petrochemical industries.

Particular care is taken to enable maximum phase separation from the solvent and distillate, which under some conditions have very similar densities making economic plant operation and good separation a challenging design task. The solvent recovery and base oil stripping stages are further areas where SOR has, through its operating experience, determined optimal operating conditions.

2.5.3 **Environmental Benefits of the Re-refining Process**

About 350 million litres of waste lube oil is collected in Australia every year. Wastefully, 60% is burned in Australia and 24% is exported to be burned overseas, mainly in Asia. Each tonne of oil burned releases 2.92 tonnes of CO₂ into the environment.

If all of Australia's collected waste oil was re-refined instead of burned, greenhouse gas emissions would be reduced by about 1 million tonnes per year. Burning destroys a valuable commodity and permanently removes lube oil from productive use.

Southern Oil's refining process produces no waste, creating a near perpetual cycle of use and re-use of a diminishing and finite resource. Every component is reused and 99% of the lube oil component in the waste oil is recovered as high quality lube oil. Production of re-refined lube oil uses 60% less energy compared to the production of crude lube oil, all of which is imported to Australia.

Re-refined oils are subjected to testing and must adhere to quality standards under the national Product Stewardship (Oil) Act. Recovered oils for burning are not subjected to any quality specifications. Used oil contains elements which are potentially harmful, including polyaromatic hydrocarbons, chlorinated hydrocarbons, heavy metals and dioxins/furans. These chemicals are known carcinogens and mutagens. The SOR re-refining process removes these harmful elements.

Waste lube oil is classified as a hazardous substance and, if unregulated or burned at low temperatures, can potentially release a range of these toxic compounds directly into the environment. For oil exported overseas, no re-refineries in Asia can produce Category 1 base oils and all of Australia's exported waste lube oil is burned – which Australia does not monitor. Allowing the unfettered export of waste lube oil (all of which is wastefully burned) denies Australia the opportunity to maximise supplies for re-refining where the highest beneficial re-use is achieved.

The SOR process prevents the release into the environment (on land, in water courses, and into the air as the product of combustion as a low grade burner fuel) of waste oil and ensures that contaminants are properly removed and safely disposed of.

Oil is a limited global resource. The SOR process recovers this limited resource for re-use in the most sustainable, environmentally conscious manner.

2.6 Pulpmaster

2.6.1 Overview

The Pulpmaster system is a patented product/process for the on-site (at shopping centres, restaurants etc.) shredding of food waste. Shredded waste is then stored in tanks or bins for bulk collection in tankers.

The system is clean, efficient and effective at managing liquid and solid food waste streams. Throughout the development of the Pulpmaster system, there has been a strong focus on minimising the use of water and power for the processing of the food waste through the Pulpmaster machine.

The new Pulpmaster 4000 machine (refer **Figure 4.41**) has been designed with full dual redundancy and meets a Category 4 safety rating. The machine has been designed to ensure that operators can use the Pulpmaster 4000 easily and safely.

2.6.2 Benefits

Benefits of the Pulpmaster system include:

OH&S Benefits

- Reduction in carrying heavy food bags to the outside dumpster bin (reduced back strain) up to 80% of the weight can be food waste;
- Improved hygiene and odour reduction in the outside waste storage facility (reduced vector attraction);

Financial Benefits

- Reduction in waste disposal cost to landfill;
- Reduction in the cost of black plastic bags;
- Improved staff efficiencies hence cost savings;
- Lower bin waste removal cost;
- Reduced labour requirements for bin cleaning;
- Lower cleaning chemical costs;

Environmental Benefits

- Reduction in organic food waste to landfill;
- Production of organic fertiliser;
- Reduction in odour from waste bins;
- Reduction in vermin attraction;
- Reduction in greenhouse gas emissions;

- Creation of 'carbon neutral' energy; •
- The production of green electricity; •
- The reduction of CO_2 emissions into the atmosphere; •
- A reduction of the likelihood of oil and grease entering the sewer system; •
- Supports the NSW Government's Waste Avoidance and Resource Recovery • Strategy.

2.7 **Need for Project and Alternatives**

2.7.1 **Project Need**

The primary aim of the project is to provide for a long term sustainable Liquid Waste Facility to:

- Store and treat grease trap waste that is liquid waste as defined in the POEO Act (K110 type waste). This treatment will generally involve separating liquids from solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant solids or sludge will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Store food waste that is liquid waste as defined in the POEO Act (K120 • type waste) for aggregation and transport for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Store used oil (J100 type waste) for resource recovery, aggregation and transport to re-refining and other facilities for treatment;
- Store and treat industrial oily water (J120 type waste) waste oil/hydrocarbons mixtures/emulsions in water). This treatment will generally involve separating used oils, hydrocarbons and solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant used oil will be stored for resource recovery, aggregation and transport to re-refining and other facilities for treatment.

A number of alternatives have been considered as summarised in Sections 2.7.2 to 2.7.5).



2.7.2 **Option 1 – Undertaking the Proposal**

The proposed facility at 14 Rayben Street:

- Includes an efficient layout with a minimal visual impact from the street;
- Is well located in terms of access to Sydney's motorways (M7) and buffer ٠ distances to housing;
- Utilises proven materials handling and production processes and waste and • water management, including mitigation measures;
- Will create the opportunity to deal with additional liquid waste volumes in the region;
- Is likely to have lower social and environmental impacts (being a brownfield redevelopment of existing industrial site) than a greenfield development where potential alternative uses of the site and surrounding sites may be less well established;
- Will provide for an increased labour force based on the site (including truck • drivers), creating positive flow-on effects to the local economy;
- Will enable J.J. Richards to better utilise its existing site; •
- Will also better respond to increasing demands from Sydney Water and • community expectations for efficient grease trap waste treatment;

This option is therefore the preferred option.

2.7.3 **Option 2 – Upgrading the Existing Seven Hills WMF**

The existing facility at Tucks Road, Seven Hills is currently nearing it operating capacity and:

- Cannot deal with additional liquid grease trap waste volumes in the region; •
- Cannot deal with liquid food waste volumes in the region; •
- Cannot deal with used oil volumes in the region; •
- Will not provide for an increased labour force based on the site (including • truck drivers), and not enable J.J. Richards to better utilise its existing site;
- Is fairly well located in terms of access to Sydney's motorways (M7) and • buffer distances to housing;
- Cannot better respond to increasing demands from Sydney Water and • community expectations for efficient grease trap waste treatment;

This option is not considered sustainable.

2.7.4 **Option 3 – Establishment of the Facility at a Greenfield Site**

A further alternative considered was to relocate this facility to a new site, possibly outside of Sydney. This option would:

- Be possible, although is not considered viable due to the considerable cost ٠ of transporting liquid waste from Sydney;
- Be likely to have higher social and environmental impacts (being a • greenfield development where potential alternative uses of the site and surrounding sites may be less well established) than the brownfield redevelopment of existing industrial site;
- Will not enable J.J. Richards to better utilise its existing site; •
- Would also require considerable time and resources to acquire and gain • approval to operate such a facility at a new site;
- May be less well located in terms of access to Sydney's motorways and • buffer distances to housing;

This option was therefore not considered further.

2.7.5 **Option 4 - No Expansion**

Another alternative considered was to not undertake an expansion. This option would result in no additional adverse environmental impacts; however, the potential for increase in handling capacity and subsequent positive flow on effects to jobs and local support industries would be lost.

This option would likely require an alternative site being chosen to service projected demands in the Sydney Metropolitan area, as described above. This would require a duplicate site being established to take advantage of growth opportunities, and would be financially and environmentally inefficient.

Again, this option was therefore not considered further.

Stakeholder Consultation 2.8

Consultation, including the distribution of a Project Overview and written descriptions of the proposed project, has been undertaken with a variety of stakeholders including:

- Councillors Black and Atalla, and officers from Blacktown City Council;
- Edmond Atalla, the local State Member; and officers from various State government departments;
- Representatives from businesses in and around Rayben Street;

Further details on this consultation are provided below:

2.8.1 Blacktown City Council

Pre-lodgement discussions were held with and a Project Overview (refer **Appendix** 7) provided to officers from Blacktown City Council.

Council provided written responses (refer Appendices 5 and 7) to:

- J.J. Richards' initial queries of 11 September 2014 on 13 October 2014;
- Department of Planning & Environment (SEARs);

Blacktown City Council's requirements for the environmental assessment (EA) in regard to the proposal was included in the SEARs issued by the Director General – EPA references - Notice Number 1526211; File Number EF14/29239 – refer to **Appendix 5**.

Emails were sent to Councillors Black and Atalla, the Ward 4 Councillors on 5 and 11 February 2016 (refer Appendix 7) providing information on the project and seeking to have a meeting to provide further information and to discuss the project.

At the time of the completion of this EIS, no further information has been requested.

2.8.2 Edmond Atalla – State Member

Emails were sent to Councillors Black and Atalla, the Ward 4 Councillors on 5 and 11 February 2016 (refer Appendix 7) providing information on the project and seeking to have a meeting to provide further information and to discuss the project.

At the time of the completion of this EIS, no further information has been requested.

2.8.3 Local Properties

A Project Fact Sheet was developed and distributed to nearby affected occupants of properties within a 250m radius of the site on Friday 19 February 2016 by . A copy of this Fact Sheet together with a map showing the 250m radius is provided in **Appendix 7**.

The Fact Sheet provided a local phone contact of the J.J. Richards & Sons' NSW State Manager (Mr Mick Nicholson) for any queries arising from this development. A period of 21 days for responses had been allowed for.

At the time of the completion of this EIS, no further information has been requested.

2.8.4 Department of Planning & Environment

A request for Secretary's environmental assessment requirements (SEARs) was submitted to the Director General on 24 October 2014. The SEARs was issued on 4 December 2014 – Reference SSD6767 – refer to **Appendix 5**.

On 8 December 2015, the Department was further notified with regard to seeking to include 'additional and revised development works and waste acceptance criteria' as part of this Project – refer to **Appendix 5**. The Department did not provide any further comment or SEAR requirements regarding the Project changes.



2.8.5 **Environment Protection Authority**

Environmental Protection Authority's (EPA) requirements for The the environmental assessment (EA) in regard to the proposal was included in the SEARs issued by the Director General - EPA references - Notice Number 1526211; File Number EF14/29239 – refer to Appendix 5.

2.8.6 **Department of Transport Roads and Maritime Services**

The Department of Transport Roads and Maritime Services' requirements for the environmental assessment (EA) in regard to the proposal was included in the SEARs issued by the Director General - EPA references - Notice Number 1526211: File Number EF14/29239 – refer to Appendix 5.

2.8.7 **Sydney Water**

Sydney Water's requirements for the environmental assessment (EA) in regard to the proposal was included in the SEARs issued by the Director General - EPA references - Notice Number 1526211; File Number EF14/29239 - refer to Appendix 5.

JJ Richards & Sons also enquired by email on 13 April 2015 with Mr John Zmijewski, a Business Customer Representative for Sydney Water as to the capacity of the existing reticulated sewer at Rayben Street to accept the proposed trade waste volumes from this development.

Mr John Zmijewski confirmed on 30 April 2015 that the receiving sewer at the proposed Glendenning site has the capacity to accept the requested maximum 180 kL/day discharge, at a maximum instantaneous rate of 5 litres/second (refer Appendix 7).

2.8.8 **Department of Primary Industries, Office of Water**

The Department of Primary Industries, Office of Water's requirements for the environmental assessment (EA) in regard to the proposal was included in the SEARs issued by the Director General – EPA references - Notice Number 1526211; File Number EF14/29239 – refer to Appendix 5.

2.9 Structure of the EIS

To address the environmental impacts of the proposal and requirements of SEAR, the following sections of this EIS have been structured as follows:

- Section 3 Site Details: Identifying the site, site history, adjoining uses and existing utilities and services.
- Section 4 Description of Project: Providing detailed information on existing • and proposed site infrastructure, existing and proposed site operations, confirming the capital investment value for the Project, overview of mitigation measures, fire services and proposed construction activities.
- Section 5 Planning and Statutory Issues: Consideration and assessment of the • EIS process, the statutory planning provisions and relevant legislation.

- Section 6 Environmental Assessment and Mitigation of Potential Impacts: Assessing relevant aspects of the existing environment, potential impacts and mitigation measures.
- *Section 7 Risk Assessment:* Assessing the environmental risks associated with the project in the context of State Environmental Planning Policy No.33.
- Section 8 Environmental Plans: Providing an overview of J.J. Richards Integrated Management System (IMS), a Construction Environmental Management Plan and overview of the Site Based Management Plan for the Project.
- Section 9 Conclusions: A summary and conclusions of the EIS and mitigation measures, including justification for the Project based on the principles of ESD.
- *Section 10 References:* A list of references relevant to the preparation of the EIS and supporting specialist assessments.

3 Site Details

3.1 Location

The site is located at 14 Rayben Street Glendenning (refer **Figures 3.1** and **3.2**) and described as Lot 123 DP 870988 (formerly Lots 1-3 DP802117) Parish of Rooty Hill County of Cumberland (**Figure 3.3**) and has an area of 7,214 m².

The site is encumbered by a 2.5m wide drainage easement along part of the northern boundary of the site.

3.2 Tenure

The site has been owned by J.J. Richards & Sons Pty Ltd since 2007.

3.3 Site History

A development application was determined in November 1993 for a truck maintenance workshop, truck holding yard and ancillary offices on the site. This was then occupied by Stevensons Transport.

In July 1997, another development application was determined for an above ground diesel tank. This application was made by SA Gas Distributors Pty Ltd.

J.J. Richards purchased the site in 2007 and has continued to operate a truck maintenance workshop, truck holding yard and ancillary offices on the site. There are currently no fuelling operations on the site.

3.4 Adjoining Land Uses

Figure 3.2 is an aerial photo of the site and adjoining properties.

Land to the north of the site (across the drainage reserve) is industrial and warehousing.

The lot to the immediate west of the site is transport and warehousing complex, whilst the lot to the south-west of the site across the Rayben Street cul-de-sac is used for the storage of scaffolding.

J.J. Richards & Sons Pty Ltd also own and operate a maintenance workshop, truck holding yard and ancillary offices opposite this site at 7-11 Rayben Street.

Transpacific Industries operate a waste management facility to the immediate east of the site whilst Earthworks Australia (a demolition contractor) occupies the lot further to the east. Warehousing and industrial activities are undertaken to the southeast on the opposite side of Rayben Street.

The closest housing is approximately 420 metres to the north. There is also a buffer of some 900 metres to the closest housing to the east and west of the site.

Given the environmental controls proposed in this EIS and the supporting environmental assessments, the development is unlikely to have any adverse interactions between the development and existing, approved and any proposed developments in the vicinity of the site.

3.5 Existing Utilities and Services

Details of a DBYD enquiry are provided in **Appendix 1**. It is current serviced by:

- A 32mm water connection from a 150mm water main on the northern footpath of Rayben Street;
- A sewer connection to a Sydney Water sewer in the drainage reserve to the immediate north of the site;
- Electricity (from overhead supplies) in Rayben Street;
- Telstra services in Rayben Street;

A trade waste approval from Sydney Water will be required. Sydney Water confirmed on 30 April 2015 that the receiving sewer at the proposed Glendenning site has the capacity to accept the requested max 180 kL/day discharge, at a maximum instantaneous rate of 5 litres/second (refer **Appendix 7**).

The proposed development will require a new 100mm fire service for the existing street water main. A flow and pressure certificate for Sydney Water in **Appendix 1** indicates there is sufficient water supply to accommodate this.

An upgrade to the existing electricity supply will be required for this development.

4 **Description of Project**

4.1 Existing Infrastructure

The existing industrial building on site has been the subject of several approvals (refer to **Appendix 2**) including:

- DA-93-263 Truck maintenance workshop, truck holding yard and ancillary offices;
- Building Permit BA-93-4570 for an industrial workshop and office;

Existing infrastructure on the site is described in Sections 4.1.1 to 4.1.3 below.

4.1.1 Site Layout and Civil Works

The existing site layout is shown in **Figure 4.1** and **Drawing RI456-D0-01** and described below:

- Perimeter security fencing;
- Approximately 5,000 m² of concrete pavement graded to the drainage field inlets which in turn drain to the drainage easement to the north of the site;
- Industrial driveway;
- Truck and car parking;
- Perimeter landscaping along the front and rear boundaries;

4.1.2 Existing Office

Drawings and photos of the existing office is shown in Figures 4.1 to 4.5 and described below:

- 9.2 m x 21.3 m concrete block construction;
- Colorbond roof;
- Offices;
- Lunch room and amenities;

4.1.3 Existing Industrial Building

Drawings and photos of the existing industrial building is shown in **Figures 4.1** to **4.5** and described below:

- 33.4 m x 21.3 m steel portal frame and colorbond walls;
- Reinforced concrete floor;
- Reinforced concrete floor in northern bay draining to a 3m³ sump;
- Ridge vents / rotovents;
- Colorbond roof;
- Roller shutters.

4.2 **Proposed Infrastructure**

Proposed infrastructure is described in Sections 4.2.1 and 4.2.4 below:

4.2.1 Site Layout and Civil Works

The proposed site layout is shown in **Drawing RI456-D0-02**. The existing industrial building will be demolished and some existing concrete pavement will be removed to allow for the construction of these works.

Additional site works as part of this development will include:

- An additional (inwards) driveway;
- A weighbridge; •
- Stormwater treatment devices: ٠
- Fire services: •
- Electrical and water connections;

4.2.2 **Existing Office**

There will be no changes to the existing office (refer Section 4.1.2 for details).

4.2.3 **Organics Building**

The proposed Organics Building is shown in Drawings RI456-D0-11 to 16 and described below:

- 20m x 26m x 8.5m eave height steel portal frame and colorbond walls plus 10m x 21m x 6m unloading bay annex and 10.5m x 28m x 6m loading bay annex:
- Ridge vents / rotovents; .
- Colorbond roof, translucent strips and insulation; •
- Reinforced concrete floor; •
- Bunded loading and unloading bays, including 75mm high driveover bunds • and spill control sumps;
- 400mm high bunded tank farm (218m3 capacity); •
- Electrically operated roller shutters; •
- Amenities room and office:

4.2.4 **Oil Storage Area**

The proposed Oil Storage Roof Structure is shown in Drawings RI456-D0-21 to 26 and described below:

- 19m x 28.5m x 8.5m eave height steel portal frame and colorbond walls plus 10.5m x 20m x 6m loading and unloading bay annex;
- Ridge vents / rotovents;

- Colorbond roof and translucent strips;
- Reinforced concrete floor;
- Bunded loading and unloading bay, including 75mm high driveover bunds and spill control sumps;
- 600mm high bunded tank farm (300m3 capacity) and 4m x 10m bunded pump area;

4.2.5 Plant and Equipment Grease Trap Waste Treatment

Typical plant and equipment proposed for the facility is presented as **Drawings RI456-D0-14** and **15** and in **Figures 4.10** to **4.13** and described below:

- Solids strainer;
- Vacuum pump;
- 2 x 30 kL Vacuum Tanks (Receival);
- 3 x 30 kL Vacuum Tanks (Process);
- 2 x 30 kL Vacuum Tanks (Process Water);
- 5 x 30 kL Vacuum Tanks (Sludge);
- 1 x 30 kL Vacuum Tanks (Lime);
- Carbon filter;
- Dissolved Air Flotation (DAF) unit*;
- DAF enclosure;
- Associated pipework and valves;

Key aspects of a Dissolved Air Flotation (DAF) unit (refer Figure 4.12) include:

- Feed water may be dosed with a coagulant (such as ferric chloride or aluminium sulfate) to flocculate the suspended matter;
- A portion of the clarified effluent water leaving the DAF tank is then pumped into a small pressure vessel (called the air drum) into which compressed air is also introduced. This results in saturating the pressurized effluent water with air;
- The air-saturated water stream is recycled to the front of the float tank and flows through a pressure reduction valve just as it enters the front of the float tank. This results in the air being released in the form of tiny bubbles;
- The bubbles adhere to the suspended matter, causing the suspended matter to float to the surface and form a froth layer which is then removed by a skimmer;

The froth-free water exits the float tank as the clarified effluent from the DAF unit:

This includes provision for an additional 3 tanks for process water and sludge in the future (refer RI456-D0-15). The total grease trap tank waste capacity will ultimately be 390 kL.

A Grease Trap Waste Treatment Flowchart is provided in Figure 4.20.

Liquid Food Waste Storage

Typical plant and equipment proposed for the food waste facility is presented as Drawings RI456-D0-14 and 15 and in Figure 4.13 and described below:

- Solids strainer:
- Vacuum pump; •
- 5 x 30 kL Vacuum Tanks (Food Waste); •
- Associated pipework and valves;

This includes provision for an additional two tanks for food waste in the future (refer RI456-D0-15). The total liquid food waste tank capacity will ultimately be 150 kL.

A Liquid Food Waste Flowchart is provided in Figure 4.21.

Used Oil Storage

Typical plant and equipment proposed for the used oil facility is presented as Drawings RI456-D0-24 and 25 and in Figures 4.15 and 4.16 and described below:

- Solids strainer;
- Vacuum pump; •
- 3 x 40 kL Tanks (Receival); ٠
- 1 x 40 kL Tanks (Oily Water); •
- 4 x 120 kL Tanks (Storage); •
- 1 x 20 kL Self Bunded Tank (Non-Compliant Product); •
- Associated pipework and valves; ٠

This includes provision for an additional tank for used oil receival in the future (refer RI456-D0-25). The total used oil tank capacity will ultimately be 680 kL.

All used oil tanks and equipment will be constructed to comply with AS1940 The storage and handling of flammable and combustible liquids.

A Used Oil Flowchart is provided in Figure 4.22.
Industrial Oily Water Treatment

Typical plant and equipment proposed for the industrial oily water facility is presented as Drawing RI456-D0-25 and described below:

- Strainer;
- Pumps; •
- 2 x 60 kL Tank; ٠
- Dissolved Air Flotation (DAF) unit*; ٠
- Associated pipework and valves;

This tanks for will be provided in the future (refer RI456-D0-25). The total industrial oily water tank capacity will ultimately be 120 kL.

All industrial oily water tanks and equipment will be constructed to comply with AS1940 The storage and handling of flammable and combustible liquids.

An Industrial Oily Water Flowchart is provided in Figure 4.23.

4.3 **Existing Operations**

4.3.1 **Overview**

Truck and Car Parking

Parking is available on the site for cars and trucks on concrete pavement. All vehicles enter and leave the site via an industrial driveway (refer Figures 4.1 and 4.2, and Drawing RI456-D0-01).

Workshop

Workshop and maintenance activities occur within the existing industrial building (refer Figures 4.3 to 4.5).

Administration

The existing office and amenities building (refer Figures 4.1 to 4.5) is used to accommodate managerial and administration personnel as well as providing amenities for all personnel working on or from the site.

Bin Storage

Bin and container storage is undertaken on the concrete pavement.

4.3.2 **Operating Hours**

Normal hours of operation for the site are currently 4am to 5pm Monday to Fridays, including public holidays and 6am to 2pm on Saturdays. The nature of the waste management industry however necessitates works outside of these hours, including vehicles leaving and returning to the site, occurring.

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4.3.3 Staffing Levels

Staffing levels at the existing site include:

- Truck drivers 10;
- Administration/Workshop 8.

4.4 **Proposed Operations**

4.4.1 Overview

Truck and Car Parking

Parking will be available on the site for cars on the concrete pavement. Truck parking will also be available within the loading and unloading bays. All vehicles will enter the site via a new driveway to the east and leave the site via the existing industrial driveway (refer Figure 4.2, Drawing RI456-D0-03 and Appendix 14).

Workshop

Workshop and maintenance activities will cease to occur on the site.

Administration

The existing office and amenities building (refer **Figures 4.4** and **4.5**) will continue to be used to accommodate managerial and administration personnel as well as providing amenities for personnel working on or from the site.

Bin Storage

Limited bin and container storage will be undertaken on the concrete pavement.

4.4.2 **Operating Hours**

The proposed operations will occur within the following hours i.e.

Activity	Hours		
Truck movements to and from the site	4am to 9pm Monday to Saturday		
Office	7am to 6pm Monday to Saturday		

The nature of the waste management industry however necessitates works outside of these hours, including vehicles leaving and returning to the site, occurring.

4.4.3 Staffing Levels

Staffing levels at the proposed facility will ultimately include:

- Truck drivers -14;
- Administration/Waste Treatment 12;

4.4.4 Waste and Traffic Volumes

Existing grease trap waste volumes at the Seven Hills facility are approximately or 20,000,000 L/annum or 385,000 L/week. Forecast grease trap waste volumes (based on growth over a 10 year period) at the proposed facility are 24,000,000 L/annum or 460,000 L/week. Forecast traffic volumes are based on this treatment level. Processed liquid waste will be discharged to Sydney Water's sewage system following treatment, while sludges will be removed from the site in tankers.

Liquid food waste will be aggregated and transported from the site.

Used oil will be aggregated and transported from the site. Oily water separated from receipts will also be removed from the site in trucks.

Industrial oily water will be treated to remove oils and hydrocarbons with treated liquids being discharged to Sydney Water's sewage system. Separated oils will be removed by truck from the site.

Forecast waste volumes (based on growth over a 10 year period) are provided below:

Material	Receipts (tonnes)	Discharges (tonnes)	
	By Vehicle	By Vehicle	To Sewer
Grease Trap Waste	24,000	8,400	15,600
Liquid Food Waste	18,000	18,000	0
Used Oil	8,000	8,000	0
Industrial Oily Water (future)	2,000	200	1,800

Existing and forecast one way annual traffic movements to the site are provided below:

	Existing	Proposed
Truck Parking	2,600	3,640
Inward Movements		
Greasetrap Collection Tankers	0	1,600
Liquid Food Waste Collection Tankers	0	1,800
Used Oil Collection Tankers	0	1,143
Industrial Oily Water Collections	0	250
Outward Movements		
Greasetrap Sludge Tankers	0	420
Liquid Food Waste Line Haul Tankers	0	900
Used Oil Line Haul Tankers	0	190

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Industrial Oily Water Sludge Tankers	0	25
Total Trucks	2,600	9,968
Car Parking – Truck Drivers	2,600	3,640
Car Parking – Depot Staff + Visitors	2,080	3,120
Total Cars	4,680	6,760
Total Vehicles	7,280	16,728

Existing and forecast one way average daily traffic movements to the site are also provided below:

	Existing	Proposed	
Truck Parking	10.0	14.0	
Inward Movements			
Greasetrap Collection Tankers	0.0	6.2	
Liquid Food Waste Collection Tankers	0.0	6.9	
Used Oil Collection Tankers	0.0	4.4	
Industrial Oily Water Collections	0.0 1.0		
Outward Movements			
Greasetrap Sludge Tankers	0.0	1.6	
Liquid Food Waste Line Haul Tankers	0.0	3.5	
Used Oil Line Haul Tankers	0.0	0.7	
Industrial Oily Water Sludge Tankers	0.0	0.1	
Total Trucks	10.0	38.3	
Car Parking – Truck Drivers	10.0	14.0	
Car Parking – Depot Staff + Visitors	8.0	12.0	
Total Cars	18.0	26.0	
Total Vehicles	28.0	64.3	

4.4.5 Grease Trap Waste <u>Acceptance Criteria</u>

Waste acceptance criteria will include wastes as defined in the POEO Act, in force from time to time including

• Grease trap waste that is liquid waste (K110 type waste);

This will be the same as for J.J. Richards existing operations at Seven Hills (refer **Appendix 3** for Environment Protection Licence).

Sales personal and customer service personal are responsible for evaluating all waste prior to quotation of waste entering the site. This evaluation is to ensure that the waste meets the required waste acceptance criteria. Potential customers are to be made aware of the customer's responsibilities in the Terms and Conditions of the Sale.

Delivery and Unloading Method

Waste will be delivered in collection tankers of up to 24,000 L capacity (refer **Figure 4.31**). Initially, collection vehicles will drive into the unloading bay (which is bunded) within the Organics Building (refer **Drawings RI456-D0-11 to 16**);

- Vehicles and equipment will undergo a series of pre-start and completion checks;
- They then discharge by vacuum pressure through a static strainer into a Receival Tank where the load is weighed (each tank is on static load cells);
- Expressed air passes through an activated carbon filter prior to discharge into the atmosphere;
- Following unloading, vehicles will drive out of the unloading bay;

Treatment Method

Grease trap waste handling operations (refer Section 4.2 for proposed infrastructure) are shown in the flowchart in **Figure 4.20**, **Drawings RI456-D0-11 to 16** and described below:

- After settling for 10 minutes, the liquid waste is transferred (by vacuum pumps) to one of the Process Tanks, where a lime and coagulant is added to facilitate the separation of liquids;
- Sludge from the Process Tank(s) is then transferred by vacuum pumps to one of the Sludge Tanks;
- Liquids in the Process Tank(s) are then decanted to one of the Water Tanks where polymers are added to accelerate the formation of floc;
- Flocs in the Water Tanks are removed to one of the Sludge Tanks, whilst water is pumped at approximately 10,000 L per hour into the Dissolved Air Flotation (DAF) System;



- The chemical mix tank / reaction chamber of the DAF will incorporate pH • correction, whilst the floatation / dissolved air chamber will further remove solids and sludges;
- These sludges will be transferred to one of the Sludge Tanks; whilst the treated effluent will flow to a water drop tank from which it can be tested and discharged to sewer;
- All tanks will be vented to an appropriately sized carbon filter; expressed • air passes through an activated carbon filter prior to discharge into the atmosphere;
- The DAF unit will be fully enclosed and will vent to the carbon filter; •
- Sludge from Sludge Tanks will be removed for disposal; •

If the waste does not comply with the licensed acceptance criteria, the waste is not to be accepted and returned to the client or to an appropriately licensed facility.

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include:

- Shutting any open doors; •
- Dousing the load with an odour neutraliser; •
- Identifying the waste source and investigating; •

If required, all future loads from this source would be either pre-treated (at the source) or diverted to another waste facility.

Spill Containment

Spill containment measures are shown in **Drawing RI456-D0-11**.

Unloading activities of liquid waste will be undertaken in the unloading bay, which will be enclosed, and have a bunded concrete floor which drains to a two blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment.

Loading activities of waste (sludge) will be undertaken in the loading bay, which will be enclosed, and have a bunded concrete floor which drains to blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment.

All treatment equipment and chemicals / additives will be located within the 400mm high tank farm (with a capacity approximately 218m3) within the buildings. Such will also drain to a blind sump and any liquids from the inground sumps will be transferred to the process tanks for treatment.

<u> Disposal – Liquid</u>

Trade waste discharges will result from the treatment of grease trap wastes. The discharge would be in keeping with the quality limits determined by Sydney Water, with monitoring and verification as required by that Authority.

Forecast trade waste / sewer discharges from activities on the site will be up to 15.6 million litres per annum (average 300,000 litres per week).

Sydney Water confirmed on 30 April 2015 that the receiving sewer at the proposed Glendenning site has the capacity to accept the requested max 180 kL/day discharge, at a maximum instantaneous rate of 5 litres/second (refer **Appendix 7**).

<u> Disposal – Sludges</u>

Sludges will be removed in tankers and beneficially reused for the cultivation of feed crops on farms in the Sydney region. The Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Treated Grease Trap Waste Exemption 2014) exempts a consumer of treated grease trap waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of that waste to land, provided the consumer complies with the conditions of this exemption (refer **Appendix 3**).

This exemption is conditional on compliance to the Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Treated Grease Trap Waste Order 2014) which is also included in **Appendix 3**). A sampling plan (as required in the above order) for sludges prior to application to land has been developed by SESL Australia and is included in **Appendix 8**.

Sites currently used for land application of these sludges are in the Southern Highlands region.

4.4.6 Liquid Food Waste Acceptance Criteria

Waste acceptance criteria will include wastes as defined in the POEO Act, in force from time to time including

• Food waste that is liquid waste;

Sales personal and customer service personal are responsible for evaluating all waste prior to quotation of waste entering the site. This evaluation is to ensure that the waste meets the required waste acceptance criteria. Potential customers are to be made aware of the customer's responsibilities in the Terms and Conditions of the Sale.

Delivery and Unloading Method

Waste will be delivered in collection tankers of up to 24,000 L. Initially, collection vehicles will drive into the bunded unloading bay within the Organics Building (refer **Drawings RI456-D0-11 to 16**);

- Vehicles and equipment will undergo a series of pre-start and completion checks;
- They then discharge by vacuum pressure into one of the Food Waste Tanks where the load is weighed (each tank is on static load cells);
- Expressed air will pass through an activated carbon filter prior to discharge into the atmosphere;

If the waste does not comply with the licensed acceptance criteria, the waste is not to be accepted and returned to the client or to an appropriately licensed facility.

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include:

- Shutting any open doors;
- Dousing the load with an odour neutraliser;
- Identifying the waste source and investigating;

If required, all future loads from this source would be either pre treated (at the source) or diverted to another waste facility.

Aggregation and Transfer Method

Liquid food waste handling operations (refer Section 4.2 for proposed infrastructure) are shown in the flowchart in **Figure 4.21**, **Drawings RI456-D0-11 to 16** and described below:

- Liquid waste is transferred (by vacuum pumps) to one of the two Receival/Storage tanks;
- All tanks will be vented to an appropriately sized carbon filter;
- Expressed air will pass through an activated carbon filter prior to discharge into the atmosphere;

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating.

Disposal Destination

Liquid food waste will be removed in tankers and beneficially reused for the cultivation of feed crops on farms in the Sydney region. The Resource Recovery Exemption under Part 9, Clauses 91 and 92 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Liquid Food Waste Exemption 2014)

exempts a consumer of liquid food waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of that waste to land, provided the consumer complies with the conditions of this exemption (refer **Appendix 3**).

This exemption is conditional on compliance to the Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014 (the Liquid Food Waste Order 2014) which is also included in **Appendix 3**).

Sites currently used for land application of these sludges are in the Southern Highlands region.

Spill Containment

Spill containment measures are shown in Drawing RI456-D0-11.

Unloading activities of liquid waste will be undertaken in the unloading bay, which will be enclosed, and have a bunded concrete floor which drains to a two blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment.

Loading activities of waste (sludge) will be undertaken in the loading bay, which will be enclosed, and have a bunded concrete floor which drains to blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment.

All treatment equipment and chemicals / additives will be located within the 400mm high tank farm (with a capacity approximately 218m3) within the buildings. Such will also drain to a blind sump and any liquids from the inground sumps will be transferred to the process tanks for treatment.

4.4.7 Used Oil

Acceptance Criteria

Waste acceptance criteria for the used oil resource recovery and aggregation facility will include waste lubricating oil, oil water emulsions and oily water. Used oil containing polychlorinated biphenyls (PCBs) and radioactive materials will not be accepted. Used oil with a flash point lower than 61°C will also not be accepted.

Sales personal and customer service personal are responsible for evaluating all waste prior to quotation of waste entering the site. This evaluation is to ensure that the waste meets the required waste acceptance criteria. Potential customers are to be made aware of the customer's responsibilities in the Terms and Conditions of the Sale.

Delivery and Unloading Method

Used oil will be delivered in collection tankers of up to 15,000 L capacity (refer **Figure 4.32**). Used oil delivery and unloading operations (refer Section 4.2 for infrastructure requirements) are described below:

- Drivers are to make a preliminary assessment of oils prior to loading eg • uncharacteristic odour, colour, viscosity etc;
- If uncertain, the driver is to notify the Supervisor for directions; ٠
- Upon arrival at the site, collection vehicles will drive into the bunded • unloading and loading bay within the Oil Storage Area (refer Drawings **RI456-D0-21** to 23);
- A representative sample of used oil will be initially taken from the ٠ collection vehicle:
- If used oil meets acceptance criteria ($<61^{\circ}$ C by a flash test), commence the ٠ unloading process;
- If used oil does not meet acceptance criteria, the Supervisor will be notified for directions:
- These directions will be to unload the load into in the 20 kL non-compliant product tank to the north of the Oil Storage Roof Structure OR to remove the load to another appropriately licenced site;
- Vehicles and equipment will undergo a series of pre-start checks, including ٠ tanks, valves, filters and flexible pipework;
- Used oil will then be pumped into a Receival Tank and water allowed to • separate (by gravity);
- Vehicles and equipment will undergo a series of completion checks, • including tanks, valves, filters and flexible pipework;
- All details of unloading are to be recorded; •
- Following unloading vehicles will drive out of the unloading and loading • bay;

If the waste does not comply with the licensed acceptance criteria, the waste is not to be accepted and returned to the client or to an appropriately licensed facility.

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include:

- Shutting any open doors; •
- Dousing the load with an odour neutraliser; ٠
- Identifying the waste source and investigating;

If required, all future loads from this source would be either pre treated (at the source) or diverted to another waste facility.

Aggregation and Transfer Method

Used oil will be stored as follows (refer Figures 4.14 to 4.16 and Drawing RI456-**D0-25**):

Material	Class / Package Group	UN Number	No of Containers / Packages	Quantity of Containers/ Packages	Amount	Location/Safety Measures
Used Oil	C1	1071	4	120,000 L	480,000 L	Vertical steel tanks to AS1692 and AS1940
Used Oil	C1	1071	4	40,000 L	200,000 L	Vertical steel tank to AS1692 and AS1940
Oily Water	C1	-	1	40,000 L	40,000 L	Vertical steel tanks to AS1692 and AS1940

Used oil aggregation and transfer operations (refer Section 4.2 for infrastructure requirements) are described below:

- Water will then be removed from the Receival Tank to an Oily Water Tank (within the same bunded compound);
- The tanks will be inter-connected by a network of pipes and valves so they . are able to be used individually or in banks of two or more tanks as determined from time to time by the liquid type and the chosen destination;
- Used oil from the Receival Tank will then be transferred to a Storage Tank; •
- Used oil from Storage Tanks will then be reloaded into larger vehicles for • transport to appropriately licensed facilities;
- Oily water will also be reloaded into larger vehicles for transport to appropriately licensed facilities for treatment and reuse;
- Upon arrival at the site, line haul vehicles will drive into the unloading and • loading bay (which is bunded) within the Oil Storage Area (refer Drawings **RI456-D0-21** to 23);
- Line haul vehicles and equipment will undergo a series of pre-start and completion checks, including tanks, valves, filters and flexible pipework;
- Following loading, vehicles will drive out of the unloading bay;

Disposal Destinations

Where possible used oil will be transported to the Southern Oil Re-refinery at Wagga Wagga.

Decanted water will be transported to an appropriately licenced facility for further treatment.

Spill Containment

Spill containment measures are shown in Drawing RI456-D0-21.

Unloading and loading activities of liquid waste will be undertaken in the unloading and loading bay, which will be roofed, and have a bunded concrete floor which

drains to blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment and disposal.

All treatment equipment and chemicals / additives will be located within the 600mm high tank farm (with a capacity of approximately 300m3) within the buildings. Such will also drain to a blind sump and any liquids from the inground sumps will be transferred to the process tanks for treatment and disposal.

4.4.8 Industrial Oily Water <u>Acceptance Criteria</u>

Waste acceptance criteria for industrial oily water will include washdown water and contaminated stormwater from commercial enterprises, vehicle washdown waters and other dirty waters. Industrial water containing polychlorinated biphenyls (PCBs) and radioactive materials will not be accepted.

Sales personal and customer service personal are responsible for evaluating all waste prior to quotation of waste entering the site. This evaluation is to ensure that the waste meets the required waste acceptance criteria. Potential customers are to be made aware of the customer's responsibilities in the Terms and Conditions of the Sale.

Delivery and Unloading Method

Industrial oily water will be delivered in collection tankers of up to 15,000 L capacity (refer **Figure 4.32**). Industrial oily water delivery and unloading operations (refer Section 4.2 for infrastructure requirements) are described below:

- Drivers are to make a preliminary assessment of industrial oily water prior to loading eg uncharacteristic odour, colour, viscosity etc;
- If uncertain, the driver is to notify the Supervisor for directions;
- Upon arrival at the site, collection vehicles will drive into the bunded unloading and loading bay within the Oil Storage Area (refer **Drawings RI456-D0-21** and **22**);
- Vehicles and equipment will undergo a series of pre-start checks, including tanks, valves, filters and flexible pipework;
- Industrial oily water will then be pumped into the Industrial Oily Water Tank and water allowed to separate (by gravity);
- Vehicles and equipment will undergo a series of completion checks, including tanks, valves, filters and flexible pipework;
- All details of unloading are to be recorded;
- Following unloading vehicles will drive out of the unloading and loading bay;

Aggregation and Transfer Method

Industrial oily water will be stored as follows (refer Figures 4.14 and 4.15 and **Drawing RI456-D0-23**):

Material	Class / Package Group	UN Number	No of Containers / Packages	Quantity of Containers/ Packages	Amount	Location/Safety Measures
Industrial Oily Water	C1		2	60,000 L	120,000 L	Vertical steel tanks to AS1692 and AS1940

Industrial oil aggregation and transfer operations (refer Section 4.2 for infrastructure requirements) are described below:

Disposal Destination

Where possible used oil will be transported to the Southern Oil Re-refinery at Wagga Wagga as per Section 4.4.7 above.

Decanted water will be transported to an appropriately licenced facility for further treatment.

Spill Containment

Spill containment measures are shown in Drawings RI456-D0-21.

Unloading and loading activities of liquid waste will be undertaken in the unloading and loading bay, which will be roofed, and have a bunded concrete floor which drains to blind sumps. Any liquids from the inground sumps will be transferred to the process tanks for treatment and disposal.

All treatment equipment and chemicals / additives will be located within the 600mm high tank farm (with a capacity of approximately 300m3) within the buildings. Such will also drain to a blind sump and any liquids from the inground sumps will be transferred to the process tanks for treatment and disposal.

4.5 **Quantity Surveyor Report**

A Quantity Surveyor's Report is provided in Appendix 9.

This report has determined the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation 2000) is \$6,934,126.

4.6 **Mitigation Measures**

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works



- Trafficked areas are sealed;
- Appropriate distances to sensitive receivers;
- 28 passenger vehicle spaces in accordance with AS2890.1 for use by administration / management / operation staff and visitors will be provided;
- 14 heavy vehicle parking spaces;
- Commercial vehicles and tankers can enter and leave the site in a forward direction;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);
- All tanks will be vented through an appropriately sized carbon filter;
- The DAF will be fully enclosed and vented to the carbon filter;

Oil Storage Area

- The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil or oily water tanks for aggregation and transport to an appropriately licenced facility;

- Floor levels within the proposed building are greater than 0.5m above the • Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the • site:
- All storage tanks and the DAF will be within a 600mm high bunded tank farm (approximate capacity 301 m3);

Vehicles

- All trucks carry an emergency spill kit and the necessary equipment to prevent waste from entering the environment;
- All vehicles purchased by J.J. Richards for the performance of waste . management duties have built-in emission control measures to ensure exhaust emissions are kept to a minimum in compliance with Australian Design Rules and emission standards;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and Appendix 17);
- Trafficked areas are to be kept clean; •
- All on site equipment and vehicles will be properly maintained; •
- Spill kits to be kept on site, and where possible used for mopping up any • spillages;
- Where possible, wash down will be limited to within bunded areas;
- Only material in accordance with specific acceptance criteria will be • permitted at the facility;
- On-site odorous waste storage will be minimised;
- Trucks will be kept clean; ٠
- All plant and equipment including trucks will be fitted with efficient • exhaust mufflers;
- The receival of waste will only occur during normal operating hours;
- Noise generation is covered in the Vehicle Pre-trip Inspection procedure • (SBMP 9.2-2) and the Vehicle Breakdown and Defects procedure (WP-GEN-209);
- Where possible oils and lubricants from site plant and machinery will be ٠ collected for recycling by Southern Oil Refinery in Wagga Wagga;
- Treated liquids will be discharged to Sydney Water's sewer system;



- The resultant solids or sludge from grease trap waste and aggregated liquid • food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Where possible, office waste such as paper, cardboard, glass, metals and plastics, as well as Ewaste, including computers, printers and ink cartridges will be sorted and sent to recycling services;
- Used oil will be aggregated and transported for recycling to the Southern • Oil Refinery in Wagga Wagga;

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating preventative actions.

4.7 **Fire Services**

Fire services will be provided to ensure compliance with the Building Code of Australia. This will include:

- Fire Extinguishers;
- Fire Hose Reels; ٠
- Fire Hydrants (generally as per Drawing RI456-00-02). •

4.8 **Construction Activities**

Much of the core processing equipment and tanks will be manufactured off site or relocated from the existing Seven Hills facility. The development will involve the demolition of approximately $2,000 \text{ m}^2$ of existing concrete pavement and construction of:

- Organics Building; •
- Oil Storage Area; ٠
- Stormwater quality infrastructure; •
- Fire services; ٠
- Concrete pavement; •
- Tanks and equipment; •
- Ancillary activities and connection of services. •

As such, the principal site activities involved in the construction phase would be:

Demolition of existing concrete pavement; •



- Ground preparation and excavation for foundations; •
- Concrete foundations, floor slabs and pavements; •
- Industrial building / roof structure construction; •
- Drainage works and associated pollution control devices; •
- Installation of installation of tanks and equipment; •
- Connection of services; •

Plant and equipment required for these activities will include:

- Excavators and trucks; •
- Backhoes and bobcats; •
- Concrete pumps; •
- Rollers, grader and water truck; •
- Cranes: •

It is anticipated the construction would occur over a six month period. Normal working hours during construction will be 6.00am to 6.00pm Monday to Saturday.

5 Planning and Statutory Issues

5.1 Background

The subject land for the proposed development is situated at 14 Rayben Street Glendenning and identified as Lot 123 DP 870988. The subject land has a total site area of 7,214 m^2 , with the site being substantially developed for industrial purposes.

A Location Plan for the site is shown at **Figure 3.1** and Aerial Photograph at **Figure 3.2**.

The site is subject to the provisions of the *Blacktown Local Environmental Plan* (*LEP*) 2015 (BLEP 2015) and zoned *IN1 General Industrial* (refer to zoning Map Sheet LNZ_008 - **Appendix 1**).

The site is **not** affected by the following BLEP 2015 Mapping:

- Active Street Frontages Map no applicable map sheet;
- Terrestrial Biodiversity Map Sheet BIO_008²;
- Design Excellence Map Sheet DEX_008;
- Floor Space Ratio Map Sheet FSR_008;
- Heritage Map Sheet HER_008;
- Height of Buildings Map Sheet HOB_008;
- Key Sites Map Sheet KYS_008;
- Land Reservation Acquisition Map Sheet LRA_008; and
- Urban Release Area Map Sheet URA_008;

The only identified potential constraint applicable to the site relates to *Flood Extents* (*Low Flood Risk Precinct*) - refer to Council Mapping at **Appendix 1**. The *Low Flood Risk Precinct* is land between the 100 year and the PMF flood extents, with the site located fully above the 1% AEP. This matter is considered in the submitted Integrated Water Cycle Management Strategy – **Appendix 11**.

Land adjacent to the east, west and south is zoned *IN1 General Industrial* (BLEP 2015), with the nearest residential land located to the north around 420m (Lamb Street) and to the east around 880m (Knox Road). Land directly to the north is zoned *SP2 Infrastructure* and is a drainage reserve.

The lot to the immediate west of the site is transport and warehousing complex, whilst the lot to the south-west of the site across the Rayben Street cul-de-sac is used for the storage of scaffolding. J.J. Richards & Sons Pty Ltd own and operate a maintenance workshop, truck holding yard and ancillary offices opposite this site at 7-11 Rayben Street. Transpacific Industries ALSO operate a waste management facility to the immediate east of the site whilst Earthworks Australia (demolition contractor) occupies the lot further to the east.

² Note that the drainage channel to the north of the site is also not identified on the Terrestrial Biodiversity Map.

A development application was determined on the subject site in November 1993 for a truck maintenance workshop, truck holding yard and ancillary offices on the subject site (Council Ref. DA-93-263) – refer to **Appendix 2**. J.J. Richards & Sons Pty Ltd purchased the site in January 2007 and has continued to operate a truck maintenance workshop, truck holding yard and ancillary offices on the site. There are currently no refuelling operations on the site.

J.J. Richards & Sons Pty Ltd intends to now undertake redevelopment to include the establishment of a Liquid Waste Facility and Depot³ at the existing depot site (as described in Section 4 of this EIS). Existing site buildings will be demolished, other than the existing office, which will be retained in association with the proposed use, with construction of a new Organics Building (for grease trap and liquid food waste acceptance and treatment) and an Oil Storage Area building (for used oil aggregation, treatment and transfer).

The proposed development is *State significant development* pursuant to Clause 23 of *State Environmental Planning Policy (State and Regional Development) 2011*, as discussed in **Section 5.2** below.

The proposed development would have otherwise been *designated development* for the purposes of Clause 32 (and Clause 27) of Part 1 of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*, as discussed in **Section 5.3** below.

The application the subject of this EIS is subject to determination under Part 4 Division 4.1 (State significant development) of the *Environmental Planning and* Assessment Act 1979.⁴

5.1.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

There are no matters of national significance that have been identified that are of relevance to the proposal under Division 1 of Part 3 of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.

There are no Protected Areas; Ramsar Wetlands; Nationally Important Wetlands; Heritage Places (Commonwealth, World or National) or Marine Reserves or Areas within or near the subject land. Consideration of native, rare or endangered species or ecological communities, and rare, native or endangered migratory species have been further considered in the Ecological Assessment (**Appendix 13**).

5.1.2 Aboriginal Cultural Heritage

A search of the AHIMS database indicates that there are no Aboriginal sites recorded and that no Aboriginal places have been declared in or near the site above

³ Defined under the BLEP 2015 as a *waste or resource management facility* (resource recovery facility, and waste or resource transfer station), and *depot*.

⁴ The provisions of Division 4.1, the regulations under Division 4.1 and any other provisions of or made under the Act with respect to State significant development prevail to the extent of any inconsistency with any other provisions of or made under the Act relating to development to which Part 4 of the Act applies.

location (**Appendix 1**). Given the site has been disturbed, and given the nature of the proposed works and limitation of those works within the existing disturbed development footprint, an AHIP application is likely not warranted.

The CEMP (**Appendix 16**) will further consider the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* prior to finalising the CEMP, including any statutory obligations necessary to be implemented during construction.

5.2 State Significant Development - Approval Process

Clause 8 of the *SEPP* (*State and Regional Development*) 2011 provides for certain developments specified in Schedules 1 or 2 to be *State significant development*.

The proposed Liquid Waste Facility and Depot is *State significant development* owing to the specific nature of the proposed use and the waste acceptance criteria, as identified in Schedule 1 of the SEPP, as follows:

23 Waste and resource management facilities

- (6) Development for the purpose of any other liquid waste depot that treats, stores or disposes of industrial liquid waste and:
 - (a) Handles more than 10,000 tonnes per year of liquid food or grease trap waste;
 - (b) Handles more than 1,000 tonnes per year of other aqueous or nonaqueous liquid industrial waste;

Whilst Clause 20 of the SEPP further provides that development of a Class or description included in Schedule 4A of the EP&A Act is *regional development*⁵, *State significant development* remains subject to assessment under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979*. The Minister is the consent authority for State significant development (section 89D).

The Secretary's environmental assessment requirements (SEARs – Reference: SSD 6767) for the proposed development was issued on 4 December 2014 (refer to **Appendix 5**), with additional and revised development works for the project further notified to the NSW Department of Planning & Environment on 8 December 2015 – to which the Department provided no additional comment or requirement.

This EIS has been prepared on the basis of:

- Including all relevant documentation required under the *Environmental Planning and Assessment Regulation 2000* Schedule 1 – Forms, Part 1 -Development applications; and

⁵ This includes development for the purposes of: c) waste management facilities or works, which meet the requirements for designated development under clause 32 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000.

Addressing all relevant requirements contained in the SEARs – as provided for in the SEARs Compliance Matrix at **Appendix 6** and supporting specialist assessments (**Appendices 10-15**).

Whilst an environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* is required, SSD proposals are not *integrated development* and do not require the concurrence of other state agencies – consultation with relevant public authorities occurring before the Director-General issued DGRs for the preparation of the EIS.

5.3 Environmental Planning and Assessment Regulation 2000

Development described in Part 1 of Schedule 3 of the Regulation is declared to be *designated development* for the purposes of the Act⁶.

Pursuant to the Clause 32 (*Waste management facilities or works*) of Schedule 3 of the Regulation, the proposed development (but for being declared SSD) would otherwise have been *designated development*.

The development would additionally have been considered under Clause 27 of Schedule 3 (*Petroleum works*) - with regard to the waste oil treatment processes described in Section 4.

Notwithstanding the above considerations, the proposed development remains *State Significant Development* for the purposes of *SEPP* (*State and Regional Development*) 2011^7 – as discussed in the **Section 5.2** above.

5.4 Other State Environmental Planning Polices

5.4.1 SEPP No 33 Hazardous and Offensive Development

SEPP No.33 Hazardous and Offensive Development sets out to:

- Amend the definitions of hazardous and offensive industries where used in environmental planning instruments; and
- 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 the Policy; and
- 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
- Ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information

⁶ i.e. unless it is declared not to be designated development by a provision of Part 2 or 3 of that Schedule. The provisions of Part 2 or 3 of that Schedule are not applicable in this instance

 $^{^{\}overline{7}}$ S.77A of the EP&A Act states that (1) Designated development is development that is declared to be designated development by an environmental planning instrument or the regulations. (2) Designated development does **not** include State significant development despite any such declaration.

to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact;

Additional supporting assessment of potential impacts on air quality is provided for in **Section 6** and **Appendix 12** of this EIS.

A detailed assessment for hazardous and offensive development has been undertaken generally in accordance with the NSW Department of Planning -*Hazardous and Offensive Development Application Guidelines* (SEPP 33 Guidelines) in Section 7 of this EIS and Appendix 15.

5.4.2 SEPP No 55 Remediation of Land

The *Planning Guidelines SEPP 55–Remediation of Land* state that when carrying out planning functions under the EP&A Act, a planning authority must consider the possibility that a previous land use has caused contamination of the site as well as the potential risk to health or the environment from that contamination. Decisions must then be made as to whether the land should be remediated, or its use of the land restricted, in order to reduce the risk.

The development site (Lot 123 DP 870988) does not appear on the EPA database search as contaminated land – refer to **Appendix 1**.

The subject land is not known to be contaminated or to have required remediation works, with the historical use of the site being for general industrial purposes. The site additionally has not been known to be used for purposes identified in either:

- The NSW Managing Land Contamination Planning Guidelines SEPP 55 Remediation of Land Appendix A. Industries and Chemicals Used; or
- Blacktown City Council's DCP 2015 Part I Contaminated Land Guidelines Appendix 1 Some activities that may cause contamination; or

In addition, Section 8 of the submitted Geotechnical Report (**Appendix 10**) provides a preliminary assessment of site contamination, including a chemical analysis of the underlying soils, which states:

The contamination assessment criteria used in this investigation have been obtained from the National Environment Protection (Assessment of Site Contamination) Measure (NEPM, 1999). This document presents risk-based Health Investigation Levels based on a variety of exposure settings for a number of organic and inorganic contaminants. To assess the risk to human health the results of the laboratory analysis are compared against the Health Investigation Levels (HIL) for the exposure setting; 'Industrial / Commercial' ('D').

The concentrations of all contaminants were well below the relevant assessment criteria (HILs D). Therefore, the contaminant concentrations, present in the fill and natural soil layers are **not** considered likely to pose a risk to human health or the environment under a 'Commercial / Industrial' setting if they are to remain on site.

The Geotechnical Report further provides an assessment of chemical analysis of the fill material and Natural Soils – VENM. No foreign materials or asbestos were observed within the fill material. Natural soils on the above site were classified as virgin excavated natural material (VENM) for future use.

In support of the above conclusions, any material classified as ENM⁸ that cannot be reused on site will be classified as "General Solid Waste (non-putrescible)" and be disposed at an approved licenced facility.

Any potentially contaminated soil will be otherwise classified based on soil tests in accordance with the DECCW document Waste Classification Guidelines: Parts 1 and 2 (DECC 2009) and disposed at an approved licenced facility.

5.4.3 SEPP No 64 Advertising and Signage

There is no advertising signage proposed as part of the application.

Any advertising structures will be designed and installed to meet exempt development requirements or otherwise subject to a separate Development Application being submitted at the appropriate time to Council and consistent with the SEPP requirements – i.e. signage would be generally otherwise limited identify the names and logos of the businesses and tenants of the site consistent with the definition for a *business identification sign* under Clause 4 of SEPP 64. Clause 9 of Part 3 of SEPP 64 does not apply to signage for the purposes of *business identification sign*.

5.4.4 SEPP (Infrastructure) 2007

The following relevant Divisions of Part 3 (Development Controls) of the SEPP are applicable:

- Division 17 Roads and Traffic (Subdivision 2 Development in or adjacent to road corridors and road reservations)

The development is listed under Schedule 3 of the SEPP (*Traffic generating development to be referred to the RMS*) and hence would normally warrant referral. Referral applies to 'recycling facilities' and 'waste transfer station'.

Traffic and access matters are addressed in detail the EIS, with traffic volumes provided in Section 4.4.4, with detailed assessments provided at Section 6.7 of this EIA and in the submitted Traffic Impact Assessment (**Appendix 14**). The resultant increase in traffic numbers are not considered significant, with no mitigation measures considered required as a result of the proposed development.

Division 23 Waste or Resource Management Facilities

The development involves waste storages to which Division 23 applies. SEPP (Infrastructure) 2007 - Clause 123 would not be applicable to determination of the development application, as the activities do not constitute development for *'the*

⁸ Excavated Natural Material

purpose of the construction, operation or maintenance of a landfill for the disposal of waste'.

The development would otherwise be permitted with consent under Clause 121, given the development site is located within a 'prescribed zone' under Section 120.

There are no other particular provisions under this Division which otherwise apply to assessment of the proposed development.

5.5 Environment Protection Licence

An environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* is required and will be subject to a separate application.

Whilst an environment protection licence is required, SSD proposals are not *integrated development* and hence do not require the concurrence of other state agencies – i.e. consultation with relevant public authorities occurring before the Director-General issued DGRs for the preparation of the EIS.

Section 89K of the *Environmental Planning and Assessment Act 1979* further requires that an authorisation for an environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* cannot be refused if it is necessary for carrying out *State significant development* that is authorised by a development consent (under Division 4.1 of the Act) and is to be substantially consistent with the consent.

Licencing for the subject site will be required for Schedule 1 activities under the POEO Act 1997 for the following:

- 34 Resource recovery having on site at any time more than 2,000 litres of waste oil; and
- 41 Waste processing (non-thermal treatment) non-thermal treatment of liquid waste i.e. given the quantities received of liquid waste meets the criteria set out in Column 2 of that Table, and 50% or more by weight of the total amount of waste received per year requires disposal after processing;
- 42 Waste storage receiving from off site and storing (including storage for transfer) of waste.

5.6 Blacktown LEP 2015

This plan is the principal planning instrument that controls development of the land currently within the local government area. The NSW State Government made Blacktown Local Environmental Plan 2015 (BLEP 2015) law on 26 May 2015. The LEP became operational on 7 July 2015.

Under the provisions of this plan, the subject land is zoned as *IN1 General Industrial*.

The following is an assessment of the proposed development against the relevant provisions of the BLEP 2015:

5.6.1 Part 2 – Permitted or prohibited development Zone objectives and Land Use Table:

The objectives stated under the LEP for Zone IN1 General Industrial are as follows:

- To provide a wide range of industrial and warehouse land uses;
- To encourage employment opportunities;
- To minimise any adverse effect of industry on other land uses;
- To support and protect industrial land for industrial uses;
- To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area;
- To minimise adverse impacts on the natural environment;

The proposal for the development, as described and assessed in this EIS, and as supported by the submitted specialist assessments, is considered wholly consistent with the objectives of the Zone, being the ongoing use of the site and development of land for general industrial purposes / waste management purposes, on land appropriately zoned for industrial uses.

The proposed uses are defined under the Dictionary in the BLEP 2015 as follows:

- waste or resource management facility means any of the following:
 - (a) A resource recovery facility;
 - (b) A waste disposal facility;
 - (c) A waste or resource transfer station;

(d) A building or place that is a combination of any of the things referred to in paragraphs (a)-(c);

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

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

depot means a building or place used for the storage (but not sale or hire) of plant, machinery or other goods (that support the operations of an existing undertaking) when not required for use, but does not include a farm building

The Land Use Table in Part 2 for Zone IN1 General Industrial identifies that the above proposed uses are 'Permitted with consent', as indicated in the extract from the BLEP 2015 below:

2 Permitted without consent

Nil

3 Permitted with consent

Aquaculture; Building identification signs; Business identification signs; Depots; Food and drink premises; Freight transport facilities; General industries; Heliports; Industrial training facilities; Kiosks; Light industries; Neighbourhood shops; Roads; Warehouse or distribution centres; Vehicle sales or hire premises; Any other development not specified in item 2 or 4

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Business premises; Camping grounds; Caravan parks; Cemeteries; Commercial premises; Correctional centres; Eco-tourist facilities; Educational *establishments;* Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Health services facilities; Heavy industrial storage establishments; Heavy industries; Helipads; Highway service centres; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Information and education facilities; Marinas; Open cut mining; Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Residential accommodation; Restricted premises; Signage; Tourist and visitor accommodation; Veterinary hospitals; Wharf or boating facilities; Wholesale supplies

5.6.2 Part 3 Exempt and complying development

There is no exempt of complying development that forms part of this application.

5.6.3 Part 4 Principal development standards

There are no specific principle development standards applicable to the proposed development under the BLEP 2015, with the following salient pointes noted:

4.1 Minimum subdivision lot size

Not applicable. No subdivision (including strata) is proposed.⁹

4.3 Height of buildings

 $^{^{9}}$ Note: Minimum lot size shown on BLEP 2015 Map Sheet LSZ_008 within this zone is 1,500m², with the existing allotment size being significantly larger - 7,214m². The provisions of this clause further apply solely to residential development.

The objectives of this clause are as follows:

- (a) To minimise the visual impact, loss of privacy and loss of solar access to surrounding development and the adjoining public domain from building;
- (b) To ensure that buildings are compatible with the height, bulk and scale of the surrounding residential localities and commercial centres within the City of Blacktown;
- (c) To define focal points for denser development in locations that are well serviced by public transport, retail and commercial activities;
- (d) To ensure that sufficient space is available for development for retail, commercial and residential uses;
- (e) To establish an appropriate interface between centres, adjoining lower density residential zones and public spaces;

The height of proposed buildings is considered consistent with the objectives this clause on the basis that:

- The height of buildings is shown on the submitted elevations (**Drawings RI456-D0-12** and **RI456-D0-22**), with the maximum height being around 11m, is consistent with the building height of surrounding industrial buildings and commensurate with the specific nature of the proposed industrial structures;
- The proposed site is not in reasonable proximity to any residential localities, commercial centres, defined focal points or public spaces; and
- The site is **not** affected with regard to the limitations for height of buildings under the LEP as shown on LEP Map Sheet HOB_008.

4.4 Floor space ratio

The objectives of this clause are as follows:

- (a) To establish maximum floor space ratios as a means of controlling the density, bulk and scale of buildings;
- (b) To establish the maximum floor space available for development for commercial premises, taking into account the availability of infrastructure and the generation of vehicular and pedestrian traffic;

The floor space ratio (FSR) is considered consistent with the objectives this clause on the basis that:

- The density, bulk and scale of buildings is a function of the need to accommodate purpose-built industrial buildings for waste management purposes, whilst maintaining appropriate site access, vehicle parking and maneuvering on site; and
- The site is **not** affected with regard to the limitations for floor space ratios under the LEP as shown on LEP Map Sheet FSR_008;

Calculation of the FSR is not required.

4.6 Exceptions to development standards

There are no exceptions to development standards required.

There are no further matters of relevance to the application under Part 4 Principle development standards.

5.6.4 Part 5 Miscellaneous provisions

5.9 Preservation of trees or vegetation

Clearing activities have previously been undertaken on the proposed site. There is no vegetation located within the proposed footprint of the buildings and/or works on the subject site.

There are no further matters of relevance to the application under Part 5 Miscellaneous provisions.

5.6.5 Part 6 Urban release areas

Not applicable. The subject site is not within an Urban Release Area – as shown on BLEP 2015 Map - Sheet URA_008.

There are no further matters of relevance to the application under Part 6 Urban release areas.

5.6.6 Part 7 Additional local provisions

7.1 Flood planning

- (1) The objectives of this clause are as follows:
 - (a) To minimise the flood risk to life and property associated with the use of land;
 - (b) To allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate chang;,
 - (c) To avoid significant adverse impacts on flood behaviour and the environment;
- (2) This clause applies to land at or below the flood planning level or the highest historical flood level.
- (3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:
 - (a) Is compatible with the flood hazard of the land, and;
 - (b) Will not significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties, and;
 - (c) Incorporates appropriate measures to manage risk to life from flood, and;

- (d) Will not significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses, and;
- (e) Is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.
- (4) A word or expression used in this clause has the same meaning as it has in the Floodplain Development Manual (ISBN 0 7347 5476 0) published by the NSW Government in April 2005, unless it is otherwise defined in this clause.
- (5) In this clause:

highest historical flood event means the highest recorded flood in the Blacktown local government area, which occurred in 1867.

land at or below the flood planning level means the level of a 1:100 ARI (average recurrent interval) flood event plus 0.5 metres freeboard.

The site is affected by *Flood Extents* (*Low Flood Risk Precinct*) - refer to Council Mapping at **Appendix 1**. The *Low Flood Risk Precinct* is land between the 100 year and the PMF flood extents, with the site located fully above the 1% AEP.

The 1% AEP flood level at the site varies from 28.33 to 28.42m (east to west), with the lowest elevation onsite being 29.46m. Existing site levels are already over 0.5m above the minimum floor level set by Council – i.e. 0.5m above the 1% AEP flood.

The PMF level for the subject site is 28.95m, which is 0.5m below the lowest surveyed elevation on site. The existing site is therefore not impacted during the Probably Maximum Flood event.

As the development site and proposed building floor levels will be greater than 0.5m above the 1% AEP and PMF, there is no potential risk of flood waters inundating the site or development use areas, building or works.

Flooding is considered in further detail in the submitted Integrated Water Cycle Management Strategy – **Appendix 11**.

7.2 Terrestrial biodiversity

Not applicable.

This clause applies to land identified as "Biodiversity" on the Terrestrial Biodiversity Map.

The subject site, including the adjoining drainage reserve / channel to the north, is **not** mapped as having any Biodiversity values on LEP Map Sheet BIO_008.

7.3 Riparian land and watercourses

- (1) The objective of this clause is to protect and maintain the following:
 - (a) Water quality within watercourses;
 - (b) The stability of the bed and banks of watercourses;
 - (c) Aquatic and riparian habitats;

- (d) Ecological processes within watercourses and riparian areas.
- (2) This clause applies to the following land:
 - (a) Land that is a watercourse;
 - (b) Land that is within 40 metres of the top of the bank of a watercourse.
- (3) In deciding whether to grant development consent for development on land to which this clause applies, the consent authority must consider:
 - (a) Whether or not the development is likely to have any adverse impact on the following:
 - *(i) The water quality and flows within the watercourse;*
 - *(ii)* Aquatic and riparian species, habitats and ecosystems of the watercourse;
 - (iii) The stability of the bed and banks of the watercourse;
 - *(iv) The free passage of fish and other aquatic organisms within or along the watercourse;*
 - (v) Any future rehabilitation of the watercourse and riparian areas, and;
 - (b) Whether or not the development is likely to increase water extraction from the watercourse, and;
 - (c) Any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.
- (4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:
 - (a) The development is designed, sited and will be managed to avoid any significant adverse environmental impact, or;
 - (b) If that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or;
 - *(c) If that impact cannot be minimised—the development will be managed to mitigate that impact.*

The development is considered to meet above objectives and development criteria, with the following salient points noted:

- Water quality management is considered in detail in the submitted Integrated Water Cycle Management Strategy **Appendix 11**, which demonstrates that the development is unlikely to have any adverse impact on water quality or flows within the watercourse, subject also to the environmental mitigation and controls detailed in Section 6 and the environmental management plans provided in Section 8 of this EIS;
- Aquatic and riparian habitats and ecological processes are considered in **Appendix 13**, which demonstrates that the development is unlikely to have any adverse impact on aquatic or riparian species, habitats and ecosystems of the watercourse, or free passage of fish and other aquatic organisms within or along the watercourse. Appropriate measures are proposed to avoid, minimise or mitigate the impacts of the development, as detailed in the environmental

mitigation and controls detailed in Section 6 and the environmental management plans provided in Section 8 of this EIS;

- There are no works proposed outside of the site or that have any effect on the stability of the bed and banks of the watercourse;
- No rehabilitation of the watercourse or riparian areas is considered necessary or warranted by the proposed development;
- The development does not propose and will not result in an increase in water extraction from the watercourse;
- Whilst the development site, the proposed buildings and works are within 40m of a watercourse, a controlled activity approval (pursuant to s.91 of the *Water Management Act 2000*) would have been required but for Section 89J(g) of the Act.

7.4 Active street frontages

Not applicable. This clause applies to land identified as "Active street frontage" on the Active Street Frontages Map.

The subject site is not mapped as an Active Street Frontage on any of the LEP Maps.

7.5 Essential services

Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the development are available or that adequate arrangements have been made to make them available when required:

- (a) The supply of water;
- (b) The supply of electricity;
- (c) The disposal and management of sewage;
- (d) Stormwater drainage or on-site conservation;
- (e) Suitable vehicular access;

Details of a DBYD enquiry are provided in Appendix 1.

The subject site is current serviced by:

- A 32mm water connection from a 150mm water main on the northern footpath of Rayben Street;
- A sewer connection to a Sydney Water sewer in the drainage reserve to the immediate north of the site;
- Electricity (from overhead supplies) in Rayben Street;
- Telstra services in Rayben Street;

A trade waste approval from Sydney Water will be required¹⁰.

Sydney Water confirmed on 30 April 2015 that the receiving sewer at the proposed Glendenning site has the capacity to accept the requested max 180 kL/day discharge, at a maximum instantaneous rate of 5 litres/second (refer **Appendix 7**).

The proposed development will require a new 100mm fire service for the existing street water main. A flow and pressure certificate for Sydney Water in **Appendix 1** indicates there is sufficient water supply to accommodate this.

An upgrade to the existing electricity supply will be required for this development.

7.8 Development of certain land in Zone IN1

Note applicable. This clause applies to any land within Zone IN1 General Industrial that is within 250 metres of land in a residential zone.

The site is not within 250 metres of land in a residential zone.

There are no further matters of relevance to the application under Part 7 Additional local provisions.

5.7 Blacktown DCP 2015

Blacktown Development Control Plan (DCP) 2006 is the document which provides details of the various standards, policies and guidelines adopted by Council for development in its Local Government Area.

Clause 11 of the State Environmental Planning Policy (State and Regional Development) 2011 however states that Development control plans (whether made before or after the commencement of this Policy) **do not apply** to State significant development.

A detailed assessment against the provisions of the DCP 2015 is therefore not warranted.

Notwithstanding, relevant provisions of the DCP 2015 have been taken into consideration with regard to the design and layout of the development and as reflected in the submitted specialist reports. Regard has also been given to the matters raised by Blacktown City Council as part of the SEARs (refer also to **Appendix 6**).

¹⁰ Local Government Act 1993 - Sect 68

5.8 Section 79C provisions

In determining a development application, the consent authority¹¹ is to take into consideration such of the following matters under section $79C^{12}$ of the *Environmental Planning and Assessment Act 1979*, as are of relevance to the development the subject of the development application:

Provision:

(1)(a) The provisions of:

- (i) Any environmental planning instrument; and
- (ii) Any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved); and
- (iii) Any development control plan; and
- (iii) Any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F; and
- (iv) The regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates;

Comment / Assessment:

Refer to Section 5.6 with regard to consideration of the provisions of the BLEP 2015 and Section 5.7 with regard to Council's DCP. The proposed development involves establishment of a Liquid Waste Facility and Depot (as detailed in Section 4). New building works are proposed, with appropriate provision for adequate on-site parking and landscaped areas which maintain and enhance the existing streetscape and local amenity.

The proposed development is consistent with the BLEP 2015, with the development considered to comply or be consistent with the development requirements within the Zone related to the specific use proposed - as discussed in previous sections of this EIS and as supported by the specialist assessments provided.

There are no relevant changes to the BLEP 2015 (which came into force on 7 July 2015) or DCP 2015 which would reasonably affect the proposed development – acknowledging that Clause 11 of the *SEPP (State and Regional Development) 2011* states that Development control plans (whether made before or after the commencement of this Policy) **do not apply** to State Significant Development.

There are no known planning agreements or draft planning agreements in place of relevance to the project site.

¹¹ The Minister is the consent authority for State significant development – S.89D of the EP&A Act 1979

¹² S 89H of the EP&A Act 1979 states that Section 79C applies, subject to this Division, to the determination of the development application

There are no other prescribed matters known that have not been considered in this EIS and Appendices.

Provision:

(b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;

Comment / Assessment:

Consideration of environmental effects resultant from the new development have been detailed in this EIS and Section 6 - with regard to impact identification and steps to be taken to protect the environment or to lessen any expected harm to the environment.

Appropriate specialists reports / assessments have been provided with the development application with regard to Integrated Water Cycle Management (**Appendix 11**), Air and Noise Quality (**Appendix 12**) and Ecological (**Appendix 13**) which support the proposed development and works.

Provision:

(c) The suitability of the site for the development;

Comment / Assessment:

The site is located on land which is suitable for J.J. Richards' operational needs for the specific industry / waste management services proposed. Project need has been further considered in **Section 2.7** of this EIS.

The site is an ideal location and suitable for the proposed facilities, being appropriately located within an existing serviced industrial estate, which is sufficiently buffered from residential areas site with no significant environmental constraints that cannot be mitigated by reasonable and relevant conditions of approval.

Provision:

(d) Any submissions made in accordance with this Act or the regulations;

Comment / Assessment:

This is a matter for consideration by the consent authority post-public notification – i.e. Proponents may be required by the Director-General to submit a written response to issues raised in submissions.

Provision:

(e) The public interest;

Comment / Assessment:

There is a clear and demonstrated benefit to public interest in allowing the use of the site for the proposed activities, given this establishes a Liquid Waste Facility and Depot for J.J. Richards in continuing to provide for essential infrastructure for waste management services in the Region.

Provision:

- (2) Compliance with non-discretionary development standards—development other than complying development;
- (3) If an environmental planning instrument or a regulation contains nondiscretionary development standards and development the subject of a development application does not comply with those standards;

Comment / Assessment:

There are no non-discretionary development standards identified for the proposal for the use of buildings and site.

Provision:

(4) Consent where an accreditation is in force;

Comment / Assessment:

This is otherwise a matter for consideration by the consent authority.

6 Environmental Assessment and Mitigation of Potential Impacts

6.1 Land

A Geotechnical Investigation has been undertaken by Ground Technologies Pty Ltd and is provided in **Appendix 10**.

6.1.1 Existing Environment Topography and Drainage

The topography of the site is described as flat and falling generally from West to East and South to North. The highest elevation across the subject site is 30.49m AHD adjacent to the existing shed buildings. The lowest elevation on the existing site is at the north eastern corner of site and is 29.46m AHD. The existing site is nearly entirely impervious with the exception of landscaping which borders the site's property boundaries.

The existing site stormwater drainage includes several stormwater pits and pipes. There is a drainage easement along the inside of the northern property boundary which conveys the existing site stormwater drainage to the east and then into a constructed drainage channel to the immediate north of the site.

This constructed drainage channel conveys flows from the surrounding industrial precinct to Eastern Creek, which is some 600m east of site. This channel is significantly degraded due to the contributing industrial type land use.

The development has no external catchments which contribute to surface flows across the proposed site.

Geology

The 1:100,000 scale Geological Series Map of the Penrith region indicates that the subject site is underlain by an Alluvial (Qal) profile comprising fine grained sand, silt and clay.

Site Contamination

The contamination assessment criteria used in the field investigation have been obtained from the National Environment Protection (Assessment of Site Contamination) Measure (NEPM, 1999). This document presents risk-based Health Investigation Levels based on a variety of exposure settings for a number of organic and inorganic contaminants. To assess the risk to human health the results of the laboratory analysis are compared against the Health Investigation Levels (HIL) for the exposure setting; 'Industrial / Commercial' ('D').

The concentrations of all contaminants were well below the relevant assessment criteria (HILs D). Therefore, the contaminant concentrations, present in the fill and natural soil layers are not considered likely to pose a risk to human health or the environment under a 'Commercial / Industrial' setting if they are to remain on site.
Soils

Erodibility and Dispersibility

Based upon the laboratory test results, the underlying clay profile is non dispersive (Emerson Class 4).

Permeability

Extrapolating from the laboratory test results, the soil profile would have an in-situ permeability (K) of approximately 1x10-8m/s.

Acid sulphate soils and potential acid sulphate soils

Laboratory results indicate low acid and sulphur trails within the natural soil profile and as such is considered to be absent of Acid Sulphate Soils (AASS or PASS).

6.1.2 Potentials Impacts

Possible sources of contamination to the land from activities on the site include:

- Liquid waste or washdown water discharging from the site and entering Council's drainage system or the waterway to the north;
- Stormwater coming in contact with dust, oil etc on trafficked areas and entering Council's drainage system or the waterway to the north prior to treatment;
- Oil and petroleum spillages from equipment and vehicles;

6.1.3 Mitigation Measures

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

• Trafficked areas are sealed;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;

- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);

Oil Storage Area

- The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil or oily water tanks for aggregation and transport to an appropriately licenced facility;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and **Appendix 17**);
- Trafficked areas are to be kept clean;
- All on site equipment and vehicles will be properly maintained;
- Spill kits to be kept on site, and where possible used for mopping up any spillages;
- Where possible, wash down will be limited to within bunded areas;
- Only material in accordance with specific acceptance criteria will be permitted at the facility;
- Treated liquids will be discharged to Sydney Water's sewer system;
- The resultant solids or sludge from grease trap waste and aggregated liquid food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;

6.1.4 **Conclusions**

The proposed development will be located within a fully developed impervious site (all buildings and concrete pavement, except for perimeter landscaping). It will involve the removal of some concrete pavement for the construction of the Organics Building and Oil Storage Area.

All activities will be undertaken within bunded areas within buildings.

There are also adequate spill control mechanisms proposed and no process water will be discharged from the site other than to sewer.

As such, no contamination of land will result from the development.

6.2 **Stormwater**

An Integrated Water Cycle Management Strategy has been prepared and is provided in Appendix 11.

Existing Environment 6.2.1

The development site is within the Hawkesbury-Nepean catchment which covers over 21,400km². In 2011, more than 60% of the population of NSW lived in the Hawsbury-Nepean region. The catchment includes the Sydney Metropolitan region and the catchment for Warragamba, the Upper Nepean and the Mangrove Creek dams which are the main supply reservoirs for the Sydney Metropolitan area. Natural resources in the region support a diverse range of livelihoods, lifestyles, recreational activities and provide safe drinking water for the region. Industries supported include fisheries, power generation, tourism, agriculture, viticulture and market gardening.

The NSW Government is developing a Lower Hawkesbury-Nepean Nutrient Management Strategy which will contribute to meeting the NSW Government's objective to manage nutrient inputs so agreed environmental values can be achieved over time and regional water quality guidelines can be developed. Hawkesbury-Nepean catchment involves many Authorities and Partnerships at State, Regional and Local levels.

The environmental values that have been identified as applying to all of the lower Hawkesbury-Nepean catchment waterways are:

- Protection of aquatic ecosystems; •
- Secondary contact recreation (such as boating);
- Visual Amenity;

Although some sections of the river and tributaries have been recognised as providing additional environmental values such as water for irrigation and general use, human consumption of aquatic foods and primary contact recreation, the site does not discharge directly to receiving waters which involve these additional environmental values. However, site flows contribute to Eastern Creek flows which in turn supply irrigators in Eastern and South Creeks with water for irrigation.

The land surrounding is heavily industrial and the drainage reserve / constructed channel adjacent to the north boundary is significantly degraded and provides little environmental values.

An Ecological Assessment of the drainage channel has been undertaken and is included as **Appendix 13**. This included a macro invertebrate survey, which only identified a limited number (< 50) of very pollutant tolerant macroinvertebrates. As such, a stream pollution index (SPI) could not be determined although it (and the water quality) is obviously low.

This assessment concurs with the Blacktown City Council Waterway Health Report Card 2013-2014 (refer **Attachment E** of **Appendix 11**) which observes poor macro invertebrates diversity is present in all waterways upstream and downstream of site.

6.2.2 Potential Impacts

Possible sources of contamination to stormwater runoff from activities on the site include:

- Liquid waste or washdown water discharging from the site and entering Council's drainage system or the waterway to the north;
- Stormwater coming in contact with dust, oil etc on trafficked areas and entering Council's drainage system or the waterway to the north prior to treatment;
- Local flooding inundating existing and proposed buildings;
- Oil and petroleum spillages from equipment and vehicles;

6.2.3 Mitigation Measures

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

• Trafficked areas are sealed;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;



- The unloading and loading bays will be bunded (including 200mm edge • bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process • tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the • site:
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);

Oil Storage Area

- The building will be roofed (with overhangs) to prevent the ingress of rain • and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The unloading and loading bays will be bunded (including 200mm edge ٠ bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil • or oily water tanks for aggregation and transport to an appropriately licenced facility;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site:

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver • inductions and ongoing training (refer Section 8 and Appendix 17);
- Trafficked areas are to be kept clean; ٠
- All on site equipment and vehicles will be properly maintained; •
- Spill kits to be kept on site, and where possible used for mopping up any • spillages;
- Where possible, wash down will be limited to within bunded areas;

- Only material in accordance with specific acceptance criteria will be • permitted at the facility;
- Treated liquids will be discharged to Sydney Water's sewer system;

The resultant solids or sludge from grease trap waste and aggregated liquid food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region.

6.2.4 Conclusions

The proposed development will be located within a fully developed impervious site (all buildings and concrete pavement, except for perimeter landscaping). It will involve the removal of some concrete pavement for the construction of the Organics Building and Oil Storage Area.

All activities will be undertaken within bunded areas within buildings.

There are also adequate spill control mechanisms proposed and no process water will be discharged from the site other than to sewer.

Roofwater will be collected in a rainwater tank for reuse and any discharge from the tank will be treated prior to discharge to the site's existing stormwater system.

As such, no changes to surface water quantities or quality will result from the development.

6.3 **Ground Water**

A Geotechnical Investigation has been undertaken by Ground Technologies Pty Ltd and is provided in Appendix 10.

6.3.1 **Existing Environment**

No groundwater was encountered to depths of 4.5m at the time of the filed investigation on 1 April 2015.

6.3.2 **Potential Impacts**

Possible sources of contamination to the groundwater from activities on the site include:

- Liquid waste or washdown water discharging from the site into the ٠ groundwater system;
- Stormwater coming in contact with dust, oil etc on trafficked areas and • discharging into the groundwater system;
- Oil and petroleum spillages from equipment and vehicles; •

6.3.3 **Mitigation Measures**

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

• Trafficked areas are sealed;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);

Oil Storage Area

- The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil or oily water tanks for aggregation and transport to an appropriately licenced facility;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and Appendix 17);
- Trafficked areas are to be kept clean;
- All on site equipment and vehicles will be properly maintained; •
- Spill kits to be kept on site, and where possible used for mopping up any • spillages;
- Where possible, wash down will be limited to within bunded areas; •
- Only material in accordance with specific acceptance criteria will be • permitted at the facility;
- Treated liquids will be discharged to Sydney Water's sewer system;

The resultant solids or sludge from grease trap waste and aggregated liquid food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;

6.3.4 **Conclusions**

The proposed development will be located within a fully developed impervious site (all buildings and concrete pavement, except for perimeter landscaping). It will involve the removal of some concrete pavement for the construction of the Organics Building and Oil Storage Area.

All activities will be undertaken within bunded areas within buildings.

There are also adequate spill control mechanisms proposed and no process water will be discharged from the site other than to sewer.

As such, no changes to groundwater conditions will result from the development.

Air 6.4

An Air and Noise Quality Assessment has been undertaken by Air Noise Environment and is provided in Appendix 12.

To assess air quality impacts from these sources, air dispersion modelling was undertaken using Calpuff. A prognostic meteorological dataset developed using TAPM was utilised for predicting local meteorological conditions at the subject site using Calmet. Emission rates for odour and VOCs were obtained through site sampling at the existing Seven Hills facility and another comparable site in Wacol (Brisbane). The derived Calmet meteorology and estimated emission rates were then used as an input for Calpuff to predict ground level concentrations of pollutants in the surrounding area. The results of the air modelling, indicates compliance with the air quality criteria for all modelled pollutants by a significant margin.

6.4.1 Existing Environment

Figure 3.2 is an aerial photo of the site and adjoining properties. J.J. Richards & Sons Pty Ltd also own and operate a maintenance workshop, truck holding yard and ancillary offices opposite this site at 7-11 Rayben Street. Transpacific Industries operate a waste management facility to the immediate east of the site. Other surrounding developments consist of industrial uses with the closest housing being approximately 420 metres to the north. There is also a buffer of some 900 metres to the closest housing to the east and west of the site.

Figure 3.1 of **Appendix 12** presents 2010 to 2014 wind rose data for the NSW Bureau of Meteorology Horsley Park station (11 km to the south of the development site). The wind roses indicate a relatively even spread of wind directions during the day period. However, during the early morning, wind conditions are dominated by a south-westerly component. Source-to-receptor winds (southerly) occur for approximately 11% of the time. Calm conditions occur for 16% of the time throughout the year and are highest during the early morning period (28% of the time).

6.4.2 Potential Impacts

Possible sources of unacceptable air and odour emissions from activities on the site include:

- Unloading and processing of liquid organic waste;
- Discharge to sewer of liquid waste and loading of sludge;
- Unloading and loading of used oil and industrial oily water;
- Vehicle movements;
- Road dust on trafficked areas;

6.4.3 Mitigation Measures

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

- Trafficked areas are sealed;
- Appropriate distances to sensitive receivers;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- All tanks will be vented through an appropriately sized carbon filter;

• The DAF will be fully enclosed and vented to the carbon filter;

Oil Storage Area

• The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and **Appendix 17**);
- Trafficked areas are to be kept clean;
- All on site equipment and vehicles will be properly maintained;
- Only material in accordance with specific acceptance criteria will be permitted at the facility;
- On-site odorous waste storage will be minimised;
- If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating preventative actions.

6.4.4 Conclusions

The results and findings of the Air Noise Environment Report (Appendix 12) are provided below:

• The nearest sensitive receptors are located to the north, approximately 420 metres from the proposed development site;

Air sampling at the existing Seven Hills site (which is to be replaced by the new Glendenning facility) indicates that the highest odour emission rates occur during the filling of liquid waste tanks. VOCs that were identified in the air samples include chloroform, tetrachloroethene and toluene;

Air quality modelling of odour and VOCs indicate compliance with the ambient air quality criteria;

Overall, based on the results of the air and noise modelling, the site represents a suitable location for the proposed liquid waste facility.

6.5 Noise

An Air and Noise Quality Assessment has been undertaken by Air Noise Environment and is provided in **Appendix 12**.

Potential noise sources at the site include truck movements, and pumps and motors inside the treatment building. Noise modelling was completed using the Cadna noise model which utilises the ISO 9613 calculation procedure. Noise source data was obtained from measurements undertaken at the existing Seven Hills facility. The results of the noise modelling, indicates compliance with the NSW Industrial Noise Policy LAeq and sleep disturbance criteria.

6.5.1 Existing Environment

Figure 3.2 is an aerial photo of the site and adjoining properties. J.J. Richards & Sons Pty Ltd also own and operate a maintenance workshop, truck holding yard and ancillary offices opposite this site at 7-11 Rayben Street. Transpacific Industries operate a waste management facility to the immediate east of the site. Other surrounding developments consist of industrial uses with the closest housing being approximately 420 metres to the north. There is also a buffer of some 900 metres to the closest housing to the east and west of the site.

Figure 3.1 of **Appendix 12** presents 2010 to 2014 wind rose data for the NSW Bureau of Meteorology Horsley Park station (11 km to the south of the development site). The wind roses indicate a relatively even spread of wind directions during the day period. However, during the early morning, wind conditions are dominated by a south-westerly component. Source-to-receptor winds (southerly) occur for approximately 11% of the time. Calm conditions occur for 16% of the time throughout the year and are highest during the early morning period (28% of the time).

6.5.2 Potential Impacts

Possible sources of unacceptable noise emissions from the site include:

- Unloading and processing of liquid organic waste;
- Discharge to sewer of liquid waste and loading of sludge;
- Unloading and loading of used oil and industrial oily water;
- Vehicle movements;
- Road dust on trafficked areas;

6.5.3 Mitigation Measures

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

• Appropriate distances to sensitive receivers;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;

Oil Storage Area

• The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and **Appendix 17**);
- Trafficked areas are to be kept clean;
- All on site equipment and vehicles will be properly maintained;
- All plant and equipment including trucks will be fitted with efficient exhaust mufflers;
- The receival of waste will only occur during normal operating hours;
- Noise generation is covered in the Vehicle Pre-trip Inspection procedure (SBMP 9.2-2) and the Vehicle Breakdown and Defects procedure (WP-GEN-209);

6.5.4 Conclusions

The Air Noise Environment Report (Appendix 12) found:

The results of the noise monitoring indicate compliance with the LAeq criteria with the proposed liquid waste facility. Modelling of LAMax noise levels from reversing alarms and truck movement (modelled) simultaneously) identifies a maximum noise level of 37 dB(A) at the nearest sensitive receptors, which is compliant with the 46 dB(A) criteria.

It is noted that the model is conservative by assuming worst-case meteorological conditions and all sources operating simultaneously. Based on the results of the modelling, noise impacts associated with the proposed changes to the site are considered to be minimal.

The results and findings of the Air Noise Environment Report (Appendix 12) are provided below:

• The nearest sensitive receptors are located to the north, approximately 420 metres from the proposed development site;



Noise modelling indicates compliance at the nearest sensitive receptors • using a highly conservative approach (all potential sources operating simultaneously and under worst-case meteorology);

Overall, based on the results of the air and noise modelling, the site represents a suitable location for the proposed liquid waste facility.

6.6 **Ecology**

An Ecological Assessment of the northern drainage channel has been undertaken and is provided in Appendix 13.

6.6.1 **Existing Environment**

As described in Section 6.2.1 of this report, the development site is within the Hawkesbury-Nepean catchment which covers over 21,400km².

The land surrounding the site is heavily industrial and the drainage reserve / constructed channel adjacent to the north boundary is significantly degraded and provides little environmental values.

This channel contains little remnant vegetation and numerous exotic plant species. It has limited ecological significance for small native mammals and reptiles due to its small overall area, lack of connectivity to surrounding remnant vegetation and thin nature of the riparian zones.

The northern channel also has limited ecological significance for native birds and native fish. This is due largely to the poor water quality and the presence of an artificial weir near Owen Street which creates a barrier for fish migration.

The water quality in the drainage reserve is low and it is likely to be highly polluted.

This assessment concurs with the Blacktown City Council Waterway Health Report Card 2013-2014 which observes poor macro-invertebrates diversity is present in all waterways upstream and downstream of site.

6.6.2 **Potential Impacts**

Possible sources of unacceptable emissions impacting on the local ecology from the site include:

- Liquid waste discharging from the site and entering Council's drainage • system or the waterway to the north;
- Washdown water entering Council's drainage system or the waterway to the • north:
- Stormwater coming in contact with dust, oil etc on trafficked areas and ٠ entering Council's drainage system or the waterway to the north prior to treatment:
- Local flooding inundating buildings; ٠

6.6.3 **Mitigation Measures**

Major pollution controls incorporated in the facility's design include:

Site Layout and Civil Works

Trafficked areas are sealed;

Organics Building

The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;

Oil Storage Area

The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver • inductions and ongoing training (refer Section 8 and Appendix 17);
- Trafficked areas are to be kept clean; •
- All on site equipment and vehicles will be properly maintained;
- Spill kits to be kept on site, and where possible used for mopping up any • spillages;
- Only material in accordance with specific acceptance criteria will be • permitted at the facility;
- On-site odorous waste storage will be minimised; •

6.6.4 Conclusions

The proposed development will be located within a fully developed impervious site (all buildings and concrete pavement, except for perimeter landscaping). It will involve the removal of some concrete pavement for the construction of the Organics Building and Oil Storage Area.

All activities will be undertaken within bunded areas within buildings.

There are also adequate spill control mechanisms proposed and no process water will be discharged from the site other than to sewer.

As such, no changes to ecological values will result from the development.

6.7 Traffic

A Traffic Impact Assessment has been undertaken by Bitzios Consulting and is provided in Appendix 14.

6.7.1 Existing Environment

The subject site is located at 14 Rayben Street in Glendenning. It has an area of approximately $7,214m^2$ has a frontage of approximately 90 metres to Rayben Street. The site currently operates as a truck maintenance workshop and truck holding yard with ancillary offices on-site. The surrounding developments consist of industrial uses. The following table presents a summary of the key roads within the surrounding road network.

Road	Jurisdiction	Road	No of	Speed	Comments
Name		Hierarchy	Lanes	Limit(1)	
Rayben Street	BCC	Local Access Road	2 (two- way)	50km/h	Provides access to the site and a number of surrounding developments. Orientated in an approximate west to east direction. Forms a priority controlled T-junction with Owen Street.
Owen Street	BCC	Local Access Road	2 (two- way)	60km/h	Provides access to a number of industrial developments. Orientated in an approximate north to south direction. Forms a priority controlled T-junction with Power Street.
Power Street	BCC	Sub – Arterial Road	4 (two- way)	60km/h	Dual carriageways separated by a raised central median. Orientated in an approximate west to east direction. Forms a signalised intersection with Knox Road.
Knox Road	BCC	Sub - Arterial Road	4 (two- way)	60km/h	Dual carriageways separated by a raised central median. Orientated in an approximate north to south direction. Forms a signalised intersection with Power Street.

speed limit of 50km/h

Background traffic volumes have been determined by traffic surveys undertaken on 4 March 2015.

6.7.2 Potential Impacts

Possible sources of unacceptable traffic impacts from the site include:

- Additional parking on Rayben Street;
- High truck numbers travelling through residential and truck sensitive areas;
- Unacceptable traffic noise;
- Vehicles reversing onto Rayben Street;

Waste Routes

Incoming and outgoing waste will be transported to / from the site via a combination of HRV's, semi-trailers and B-Doubles. It is understood that 90% of incoming waste vehicles will utilise the Westlink (M7) via Quakers Hill Parkway / Knox Road, Power Street and Owen Street to travel to and from the site while the remaining 10% incoming waste will be associated with areas in close proximity to the site attributed to local collections. It is understood that 100% of the outgoing waste will travel along the Westlink (M7) via Quakers Hill Parkway / Knox Road, Power Street and Owen Street.

The above routes are approved for 26m B-Double, as per the National Heavy Vehicle Regulator (NHVR), and thus are considered appropriate for the transportation of waste to / from the development.

Traffic Generation

Bitzois undertook a first-principles assessment based on the known operation of the development has been used to estimate the likely site traffic generation.

Given that the parking spaces will primarily be used by staff, it is assumed that each staff parking space will require one (1) arrival and departure trip per day. It is unlikely that all truck drivers will arrive / leave during the peak hour, due to operating hours of 4am - 9pm. As such, the site is estimated to generate 13 vehicle trips per hour (vph) during the peak periods including 10 vehicle trips from administration / waste treatment staff and three (3) trips from truck drivers (conservatively assumes 20% of the daily truck drivers will arrive / depart during the peak periods).

The commercial vehicle (CV) movements to and from the site are based on the estimated production of the site (refer Section 4.4.4).

Based on this first-principles assessment, combining the passenger vehicle trips and commercial vehicle trips, the proposed development is anticipated to generate a total of 19 vehicles per hour during the peak periods including 13 light vehicles and six (6) heavy vehicles.

Given that the proposed operating hours of the liquid waste facility are to be 4am to 9pm Monday – Saturday with office hours on these days of 7am to 6pm, it is likely

that the staff arrival / departure trips will occur outside the typical AM and PM peak hour periods (which occur from 8-9am and 3.30-4.30pm respectively).

Hence the above traffic generation estimates are considered to represent a worst-case scenario.

6.7.3 Mitigation Measures

The major traffic controls incorporated in the design include:

- Trafficked areas are sealed;
- 28 passenger vehicle spaces in accordance with AS2890.1 for use by administration / management / operation staff and visitors will be provided;
- 14 commercial vehicle parking spaces in accordance with AS2890.2 will be provided;
- Commercial vehicles and tankers can enter and leave the site in a forward direction;

Operational measures, including driver inductions and ongoing training, which will also be employed to minimise traffic impacts, include:

- Trafficked areas to be kept clean;
- Proper maintenance of all on site equipment and vehicles;

Spill kits will be kept on site, and where possible used for mopping up any spillages;

Parking Provision

The development will provide a total of 42 parking spaces as follows:

- 28 passenger vehicle spaces for use by administration / management / operation staff and visitors
- including one (1) PWD parking space; and
- 14 commercial heavy rigid vehicle (HRV) parking spaces including;

12 to be located within loading / unloading bays; and

two (2) to be located centrally on-site between facilities.

Based on this, the parking provision is sufficient to meet the anticipated demand for the development and the requirements contained within BCC's *DCP*.

6.7.4 Conclusions

The key findings from the Bitzios traffic impact assessment for the proposed liquid waste facility to be located at 14 Rayben Street in Glendenning are as follows:



- the development generates a car parking requirement of 20 parking spaces based on the parking rates provided within the BCC's DCP;
- a first-principles parking assessment indicates the development is required to provide 24 parking spaces to accommodate the estimated staff and visitor needs of the development;
- the development will provide a total of 28 passenger vehicle parking spaces on-site, including one (1) PWD parking space and an additional 14 commercial vehicle parking spaces for use by the truck drivers;
- the provision of 42 parking spaces is considered sufficient to meet the demand of the development and exceeds the requirements within BCC's DCP;
- the parking layout has been designed in accordance with the Australian Standards (AS2890.1, AS2890.2 and AS2890.6) and is expected to operate safely and efficiently;
- vehicle access will be via two (2) crossovers to Rayben Street, which duly caters for B-Doubles (i.e. the largest design vehicles);
- swept path diagrams have been prepared to show safe site access and manoeuvrability for B-Doubles and semi-trailers whilst performing their necessary duties on-site;
- based on a first-principles traffic assessment, the development is expected to generate 19 vehicle trips during the AM and PM peak hour periods;
- a SIDRA intersection analysis on the Owen Street / Power Street intersection indicates that the intersection is currently performing above the practical operating capacity (i.e. DOS > 0.8) for a priority controlled intersection during the AM peak hour period ("without" development traffic);
- the estimated queue lengths and delays at the Owen Street / Power Street intersection suggest that the capacity of the intersection is unable to accommodate the existing traffic volumes, accordingly additional measures are required to improve the operation of the intersection;
- the development traffic represents approximately 3.5% of existing traffic along Owen Street, the low volume of traffic generated by the proposed development is not expected to compromise the function or safety of the road and associated intersections. As such mitigation measures are not required on the basis of the above and due to the proposed future upgrades to the existing intersection outlined in BCC's WIP;
- the site has access to nearby public and active transport services and infrastructure;
- construction activities are expected to generate up to 26 trips per day; and
- the level of traffic generated by the construction activities is low, and given the industrial nature of the area construction traffic is not expected to

compromise the operation or function of any surrounding streets or intersections.

As a result of these findings we conclude that the proposed development does not introduce any significant traffic or transport impacts that would preclude its approval and relevant conditioning by Council.

6.8 Visual Amenity

6.8.1 Existing Environment

The site is located within an existing developed industrial area (refer **Figures 3.1** and **3.2** and **Drawing RI456-D0-01**). It currently includes:

- An office and an industrial building in the south-western corner and a large expanse of concrete pavement to the east and north of the buildings, which is used for vehicle parking and bin storage (refer **Figures 4.1** to **4.3**);
- Perimeter landscaping (refer **Figure 4.1** to **4.3**);

There is a drainage reserve located directly to the north of the site and undeveloped open space some 200 metres to the east of the site to the east of Owen Street. The closest residence is located approximately 420m to the north of the site on Lamb Street. There are no schools, parks or recreation facilities in close proximity.

As such, there are no sensitive receptors with views to the site.

6.8.2 Potential Impacts

Possible sources of visual impacts from the proposed development include:

- Demolition of the existing industrial building on the site;
- Construction of the Organics Building, including tanks and ancillary equipment;
- Construction of the Oil Storage Area, including tanks and ancillary equipment;
- Equipment for unloading, treatment and loading liquid waste;

Approximately 10m of perimeter landscaping will be removed to allow for the construction of a driveway in the east of the site.

6.8.3 Mitigation Measures

The major measures to minimise visual impacts from the proposed development include:

• All equipment for unloading, treatment and loading of liquid grease trap waste and food waste will be will be within the Organics Building which will be located some 27m from the property boundary;

- The walls of the Organics Building will be trimdek profile and predominately Colorbond "Ironstone" in colour, whilst the roof will also be trimdek profile and Colorbond "Dune" in colour (refer **Drawing RI456-D0-16**);
- All equipment for unloading, treatment and loading of used oil and industrial oily water will be located within the Oil Storage Area which will also be located some 27m from the property boundary;
- The Oil Storage Roof Structure will be trimdek profile and predominately Colorbond "Ironstone" in colour, whilst the roof will also be trimdek profile and Colorbond "Dune" in colour (refer **Drawing RI456-D0-16**). The 120 kL oil tanks will be stainless steel, whilst the smaller tanks will be predominately "JJ Richards Green" in colour;
- Rainwater tanks will be located to the rear of the Organics Building Old Storage Area ie they will not be visible from the street;

6.8.4 Conclusions

Views to the site from Rayben Street and the northern drainage reserve will continue to be impeded by the existing fence and landscape plantings.

All equipment for unloading, treatment and loading of grease trap waste and food waste will be located will be within the Organics Building.

All equipment for unloading, treatment and loading of used oil and industrial oily water will be located within the Oil Storage Area which will be located some 27m from the property boundary. This will be in keeping with the industrial nature of the immediate area.

The closest residence is located approximately 420m to the north of the site on Lamb Street. There are no schools, parks or recreation facilities in close proximity. It is therefore concluded that the proposed development will not result in significant visual impacts in the vicinity of the site or neighbouring areas.

6.9 Waste Management

6.9.1 Existing Legislative Environment

The NSW EPA is the State Government agency responsible for initiating waste avoidance and resource recovery strategies as a method of ensuring ecological sustainability. A summary of the legislative and policy framework for waste in NSW is provided below.

Legislative and Policy Framework

The regulatory requirements in NSW for waste management are provided within the Waste Avoidance and Resource Recovery (WARR) Act 2001, Protection of the Environment Operations (POEO) Act 1997, Protection of the Environment

Operations (Waste) Regulation 2014 and the Environmental Guidelines: Assessment, Classification & Management of Liquid and Non-Liquid Wastes.

Waste Avoidance and Resource Recovery Act 2001

The Waste Avoidance and Resource Recovery (WARR) Act establishes the waste hierarchy to ensure management options are considered for the effective management of resources against the following criteria:

- Avoidance of unnecessary resource consumption;
- Resource recovery including reuse, reprocessing, recycling and energy recovery; and
- Disposal to assess how waste will be effectively disposed to minimise any adverse impacts on the environment;

The objectives and targets of the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 are:

Avoid and reduce waste generation

By 2021–22, reduce the rate of waste generation per capita.

Increase recycling

By 2021–22, increase recycling rates for:

- Municipal solid waste from 52% (in 2010–11) to 70%;
- Commercial and industrial waste from 57% (in 2010–11) to 70% ;
- Construction and demolition waste from 75% (in 2010–11) to 80%;

Divert more waste from landfill

By 2021–22, increase the waste diverted from landfill from 63% (in 2010–11) to 75%.

Manage problem wastes better

By 2021–22, establish or upgrade 86 drop-off facilities or services for managing household problem wastes statewide.

Reduce litter

By 2016–17, reduce the number of litter items by 40% compared with 2011–12 levels and then continue to reduce litter items to 2021–22.

Reduce illegal dumping

From 2013–14, implement the *NSW Illegal Dumping Strategy 2014–16 to* reduce the incidence of illegal dumping statewide.

As part of this strategy, by 2016–17:

- Reduce the incidence of illegal dumping in Sydney and the Illawarra, Hunter and Central Coast regions by 30% compared with 2010–11;
- Establish baseline data to allow target-setting in other parts of the state;

Extracts from the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 in relation to the waste hierarchy are also provided below:

The WARR Strategy 2014-21 is driven by our desire to improve the way we live and make sure that future generations enjoy the same or an improved quality of life. This stretches across all aspects of life and covers environmental, social and economic areas. The Strategy adopts the principles of ecologically sustainable development as defined in Section 6 of the Protection of the Environment Administration Act 1991. The WARR Strategy 2014–21 is also informed and driven by the waste hierarchy which underpins the objectives of the Waste Avoidance and Resource Recovery Act 2001.

There are costs associated with managing waste and the waste hierarchy helps to focus attention and efforts where the greatest efficiencies in cost, time and resources can be achieved.

At the top of the hierarchy, avoiding and reducing the generation of waste is the most preferred approach. This is because it preserves resources, avoids the use of additional resources to manage waste that would have been generated, and aims to eliminate disposal costs. The goal is to maximise efficiency and avoid unnecessary consumption through such positive behaviours as:

- Selecting items with the least packaging or that require the least resources to produce;
- Avoiding disposable goods or single-use materials;
- Buying products that are recycled, recyclable, repairable, refillable, reusable or biodegradable;
- Using leftover food rather than throwing it away;

Where avoiding and reducing waste is not possible, the next most preferred option is to **reuse the materials** without further processing, avoiding the costs of energy and other resources required for recycling. For example, many household and industrial items can be repaired, reused, sold or donated to charities.

The next step in the hierarchy is **recycling**, which involves processing waste materials to make the same or different products. This includes composting, which recycles nutrients back into the soil. Recycling keeps materials in the productive economy and benefits the environment by decreasing the need for new materials and waste absorption. Recycling a product generally requires fewer resources than drawing virgin materials from the environment to create a new one. Where further recycling is not feasible, it may be possible to **recover the energy** from the material and feed that back into the economy where this is acceptable to the community.

Some materials may be inappropriate to reuse, recycle or recover for energy and instead require **treatment** to stabilise them and minimise their environmental or health impacts.

Finally, the waste hierarchy recognises that some types of waste, such as hazardous chemicals or asbestos, cannot be safely recycled and direct treatment or **disposal** is the most appropriate management option.

Protection of the Environment and Operations Act 1997

All material received, handled and processed including the classification of waste material generated as such is to be undertaken in accordance with the requirements of the POEO Act 1997. Key guiding requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Waste materials are disposed of at appropriate licenced facilities; and
- Waste materials are removed and transported to licenced facilities lawfully;

Protection of the Environment Operation (Waste) Regulation 2014

The regulation provides the framework for the transportation, storage and disposal of waste material in NSW. In addition, the licencing requirements of waste activities are also provided. Part 3 of this Regulation details the requirements associated with tracking waste. Certain types of waste (listed in Schedule 1 of this legislation) which have the potential to be harmful to the environment are required to be tracked from the source to waste disposal facility. There would be quantities of waste oil that require tracking under this legislation as a result of the development. All other waste generated during the Project will be stored, transported and disposed in accordance with the regulation.

NSW Environmental Protection Authority - Waste Classification Guidelines

Part 1 of the NSW EPA Waste Classification Guidelines provides the framework for classifying waste for the purpose of storing, transporting and disposing of waste in NSW. Under these guidelines, waste streams are classified into groups, which pose similar risks to the environment and human health and therefore require similar management and disposal procedures. The six waste categories are outlined in Table 6.9a below.

Table 6.9a – EPA Waste Categories

Waste Category	Description		
Special waste	Waste including clinical and related waste (e.g. pharmaceuticals and sharps), asbestos and waste tyres		
Liquid waste	Waste that is generally not capable of being picked up by spade or shovel such as waste oil		
Hazardous	Pre-classified hazardous waste includes:		
waste	• Containers having previously contained a substance of Class 1,3,4,5 or 8 or substances to which Division 6.1 of the Transport of Dangerous Goods Code applies;		
	• Coal or coal tar pitch waste;		
	• Lead acid or nickel cadmium batteries; and		
	• Lead paint waste;		
Restricted waste	Currently no waste has been pre-classified by the EPA. Restricted waste is classified by chemical assessment and then compared against trigger values for various contaminants to determine its waste classification		
General	Pre-classified general solid waste (putrescible) generally includes:		
solid waste (putrescible)	• Household waste that contains putrescible organics;		
(purescible)	•Waste from litter bins collected by or on behalf of local councils;		
	• Manure and night soil; and		
	• Food waste;		
General solid waste (non- putrescible)	Pre-classified general solid waste (non-putrescible) generally includes:		
	• Glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal;		
	• Paper or cardboard;		
	• Building and demolition waste; and		
	•Garden waste including branches, grass, plants and tree trunks;		

Source: Department of Environment, Climate Change and Water NSW (2009)



6.9.2 **Potential Waste Generation / Impacts** Waste Identification and Classification

Construction

The site establishment and construction phase would also generate waste from the demolition of concrete pavement, establishment of ground levels and construction of new buildings and associated infrastructure.

Operations

The material to be accepted (food waste and grease trap waste that is liquid waste as defined in the POEO Act, used oil and industrial oily water) at the proposed Liquid Waste Facility for treatment is considered as a "waste" material under the Waste Classification Guidelines.

The treatment of grease trap waste (K110 type waste) involves separating liquids for solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant solids or sludge will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region. The Treated Grease Trap Waste Exemption 2014 exempts a consumer of treated grease trap waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of that waste to land.

Food waste that is liquid waste (K120 type waste) will be aggregated and transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region. The Liquid Food Waste Exemption 2014 exempts a consumer of liquid food waste from certain requirements under the POEO Act and the Waste Regulation in relation to the application of that waste to land.

Used oil (J100 type waste) for resource recovery will be aggregated and transported to re-refining and other facilities for treatment and reuse.

Industrial oily water (J120 type waste) - waste oil / hydrocarbons mixtures / emulsions in water) will be treated. This treatment will generally involve separating water from hydrocarbons and solids and discharging treated water as trade waste to Sydney Water's sewer system. The resultant used oil will be stored for resource recovery, aggregation and transport to re-refining and other facilities for further treatment and reuse.

There are also minor quantities of office waste generated disposed of in designated general waste bins that are collected regularly.

A summary of the types of waste anticipated to be generated and handled during the Project are defined in Table 6.9b.



Table 6.9b Waste Inventory

Waste Type	Description	Classification	Estimated	
			volume / mass	
Construction	and Demolition Phase			
Concrete	Existing concrete to be	General Solid Waste	750 tonnes	
	removed	(non-putrescible)		
Excavated	ENM (Excavated	If to be reused offsite,	300 tonnes	
soil	Natural Material)	must meet the		
		requirements of		
		relevant sampling and		
		The Executed Netural		
		Material Examplion		
		2012		
Building and	Estimates of	General Solid Waste	200 tonnes	
construction	construction and	(non-putrescible)	200 1011105	
waste	demolition waste			
	include:			
	building materials; steel			
	reinforcing; conduits			
	and pipes; concrete			
	(solids) and asphalt;			
	packaging materials,			
	including wood, plastic,			
	cardboard and metals;			
	drums: spill clean ups			
	naints and other			
	chemicals: and metals			
	and bulk electrical			
	cabling and equipment			
Operational Phase				
Treated	Liquids separated from	Liquid Waste	Up to 15,600	
grease trap	grease trap waste for		tonnes per	
waste	disposal as trade waste		annum	
(liquid)	to Sydney Water's			
	sewer system			
Treated	Resultant solids or	The resultant solids or	Up to 8,400	
grease trap	sludge from treated	sludge will then be	tonnes per	
waste	grease trap waste.	transported for	annum	
(sludge)		beneficial reuse in the		
		on farms in the Sydney		
		region under the		
		Treated Grease Tran		
		Waste Exemption 2014		



Food Waste	Liquid food waste collected after on-site (at shopping centres, restaurants etc) shredding	The aggregated food waste will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region under the Liquid Food Waste Exemption 2014	Up to 18,000 tonnes per annum
Used Oil	Used oil, including waste lubricating oil and oil water emulsions	Liquid Waste	Up to 8,000 tonnes per annum
Industrial Oily Water	Liquids separated from industrial oily water disposal as trade waste to Sydney Water's sewer system	Liquid Waste	Up to 1,800 tonnes per annum
Industrial Oily Water (oils etc)	Oils separated from industrial oily water	Liquid Waste	Up to 200 tonnes per annum
Office waste	Includes: paper and cardboard; ink cartridges; glass, plastic and rubber; and	General Solid Waste (non putrescible)	10 tonnes per annum
	food scraps	General Solid Waste (putrescible)	1 tonne per annum
Oils and lubricants	Oils and lubricants collected from onsite plant, equipment and machinery during regular maintenance activities	Liquid Waste	1 tonne per annum

6.9.3 Waste Minimisation / Mitigation Measures Waste Minimisation – Application of the Waste Hierarchy

To minimise waste generated during both the construction / demolition and operational phases, the anticipated waste materials outlined in Table 6.9b will be managed under the waste hierarchy criteria established under the WARR Act.

The waste hierarchy can be summarised as:

- Avoidance of unnecessary resource consumption; ٠
- Resource recovery including reuse, reprocessing, recycling, energy ٠ recovery and treatment; and
- Disposal to assess how waste will be effectively disposed to minimise any • adverse impacts on the environment;

Table 6.9c outlines how the application of the waste hierarchy can be applied to this Project.

Waste Type	Application of the Waste Hierarchy				
	Avoidance Resource Recovery		Disposal		
Construction	Construction and Demolition Phase				
Concrete		Concrete removed from the site will be transported to a concrete recycling facility			
Excavated soil (overburden)	Generation of excess excavated soil material will be avoided where possible during construction	Material excavated and classified as ENM, will be reused on site where possible during construction	Any material classified as ENM that cannot be reused on site will be classified as "General Solid Waste (non- putrescible)" and be disposed at an approved licenced facility. Any potentially contaminated soil will be classified based on soil tests in accordance with the DECCW document <i>Waste Classification</i> <i>Guidelines:Parts 1</i> and 2 (DECC 2000)		

Table 6.9c Application of the Waste Hierarchy



J.J.Richards & Sons Pty Ltd Environmental Impact Statement for Liquid Waste Facility and Depot at Total Waste Management 14 RAYBEN STREET GLENDENNING

			and disposed at an
			approved licenced
_			facility.
Building and	Building and	Where applicable all	All remaining
construction	construction	efforts to be made to	building and
waste	generated during the	reuse/recycle the	construction waste
	construction and	following materials	will be classified as
	demolition phase is	onsite or an	"General Solid
	to be minimised as	alternative approved	Waste (non-
	far as practicable	facility:	putrescible)" is to be
		• Metal waste;	disposed of in
		• Brick material; and	accordance with the
		• Timber	guidelines outlined
			in DECCW (2009)
			and disposed at an
			approved licenced
			facility
Operational	Phase	1	
Treated	n/a	n/a	The treated liquids
grease trap			will be discharged as
waste			trade waste to
(liquid)			Sydney Water's
			sewer system
Treated	n/a	The resultant solids	n/a
grease trap		or sludge will then	
waste		be transported for	
(sludge)		beneficial reuse in	
		the cultivation of	
		feed crops on farms	
		in the Sydney region	
		under the Treated	
		Grease Trap Waste	
		Exemption 2014	
Food waste	n/a	The aggregated food	
		waste will then be	
		transported for	
		beneficial reuse in	
		food areas on former	
		in the Sydney region	
		under the Liquid	
		Food Wasto	
		Exemption 2014	
Used Oil	n/a	Used oils will be	n/a
	11/ a	aggregated and	11/ a
		transported for re-	
		refining at the	
		Southern Oil	
		Southern On	



		Refinery in Wagga Wagga	
Industrial Oily Water	n/a	n/a	The treated liquids will be discharged as trade waste to Sydney Water's sewer system
Industrial Oily Water (oils etc)	n/a	Where possible, oils will be aggregated and transported for re-refining at the Southern Oil Refinery in Wagga Wagga	n/a
Office waste	Generation of office waste such as paper from unnecessary printing is to be avoided as far as practicable	Paper, cardboard, glass, metals and plastics will be sorted and sent to Council collected recycling services. Ewaste, including computers, printers and ink cartridges will be collected and sent for recycling	All remaining office waste classified as "General Solid Waste (non- putrescible)" and as "General Solid Waste (putrescible)" is to be disposed of in accordance with the guidelines in DECCW (2009) and disposed at an approved licenced facility
Oils and lubricants from site plant and machinery	J.J. Richards to maintain plant and equipment to ensure it runs efficiently and produces limited amounts of waste oil and lubricants	Where possible oils and lubricants will be collected for recycling by the Southern Oil Refinery in Wagga Wagga	All other waste is to be disposed in accordance with the classification of the waste material at an approved licenced facility

Waste Management and Mitigation Measures

Facility Design

Site Layout and Civil Works

- Trafficked areas are sealed; •
- Appropriate distances to sensitive receivers; •
- 28 passenger vehicle spaces in accordance with AS2890.1 for use by • administration / management / operation staff and visitors will be provided;
- 14 heavy vehicle parking spaces; •



• Commercial vehicles and tankers can enter and leave the site in a forward direction;

Organics Building

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- The loading and unloading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);
- All tanks will be vented through an appropriately sized carbon filter;
- The DAF will be fully enclosed and vented to the carbon filter;

Oil Storage Area

- The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The loading and unloading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil or oily water tanks for aggregation and transport to an appropriately licenced facility;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;

- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 600mm high bunded tank farm (approximate capacity 301 m3);

Vehicles

- All trucks carry an emergency spill kit and the necessary equipment to prevent waste from entering the environment;
- All vehicles purchased by J.J. Richards for the performance of waste management duties have built-in emission control measures to ensure exhaust emissions are kept to a minimum in compliance with Australian Design Rules and emission standards;

Operational Measures

Operational measures to minimise unacceptable emissions include:

- Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and **Appendix 17**);
- Trafficked areas are to be kept clean;
- All on site equipment and vehicles will be properly maintained;
- Spill kits to be kept on site, and where possible used for mopping up any spillages;
- Where possible, wash down will be limited to within bunded areas;
- Only material in accordance with specific acceptance criteria will be permitted at the facility;
- On-site odorous waste storage will be minimised;
- Trucks will be kept clean;
- All plant and equipment including trucks will be fitted with efficient exhaust mufflers;
- The receival of waste will only occur during normal operating hours;
- Noise generation is covered in the Vehicle Pre-trip Inspection procedure (SBMP 9.2-2) and the Vehicle Breakdown and Defects procedure (WP-GEN-209);
- Where possible oils and lubricants from site plant and machinery will be collected for recycling by Southern Oil Refinery in Wagga Wagga;
- Treated liquids will be discharged to Sydney Water's sewer system;
- The resultant solids or sludge from grease trap waste and aggregated liquid food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;



- Where possible, office waste such as paper, cardboard, glass, metals and • plastics, as well as Ewaste, including computers, printers and ink cartridges will be sorted and sent to recycling services;
- Used oil will be aggregated and transported for recycling to the Southern Oil Refinery in Wagga Wagga;

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating preventative actions.

Waste Receipt, Handling, Storage and Disposal

Established systems and procedures (refer Section 8 and Appendix 17) will be implemented to ensure:

- Waste acceptance criteria are met; •
- ٠ Treatment operations are correctly maintained and undertaken;
- Treated materials / wastes are tested for compliance prior to discharge or removal from the facility;

Waste Transport

All waste transported to and removed from the site should be done so in accordance with road and transportation legislation. In all cases, appropriately licenced transport contractors are to be engaged to transport waste material to and from the site. The contractors appointed to transport waste are to ensure they:

- Are licenced to transport the type of waste they receive; •
- Transport the waste to a licenced facility capable of receiving the type of ٠ waste and quantity they are carrying; and
- Waste is adequately covered during transport; •

The contractor transporting the waste is to ensure that completed waste data forms are provided to the waste facility upon arrival.

Waste Reporting and Auditing

The designated site manager or an appointed responsible delegate should prepare monthly reports clearly documenting the waste that has been received and generated. These should be prepared using waste receipts that have been retained and should include:

- Waste classification data to assess compliance with the DECCW Waste • Classification Guidelines (2009);
- A review of licences held by the facilities where waste has been disposed to assess/ ensure their ability to accept the waste in accordance with relevant legislation; and



Include any incident reports relating to waste (i.e. spills) which have • occurred over that month. Any corrective actions undertaken should also be included;

6.9.4 Conclusions

Salient elements of the proposed development are compatible with the Waste Avoidance and Resource Recovery Act 2001, Protection of the Environment and Operations Act 1997, Protection of the Environment Operation (Waste) Regulation 2014 and include:

- Resource recovery of solids from grease trap waste and liquid food wastes • for beneficial reuse in the cultivation of feed crops on farms;
- Resource recovery of increased volumes of aggregated used oils by re-• refining such at the Southern Oil Refinery. Southern Oil's refining process produces no waste, creating a near perpetual cycle of use and re-use of a diminishing and finite resource. Every component is reused and 99% of the lube oil component in the waste oil is recovered as high quality lube oil. This will result in a substantial reduction in greenhouse gas emissions. Burning destroys a valuable commodity and permanently removes lube oil from productive use;
- There are also adequate spill control mechanisms proposed and no process • water will be discharged from the site other than to sewer;
- Ensuring waste is classified appropriately and in accordance with relevant ٠ guidelines;
- Waste materials are disposed of at appropriate licenced facilities; and
- Waste materials are removed and transported to licenced facilities lawfully. •

6.10 **Social and Economic Issues**

6.10.1 Existing Environment

BCC LGA is the largest local government area, by population, for the Western Sydney area and New South Wales. The estimated resident population was 325,185 in 2013, representing 2.85% of NSW's population (.id, 2013).

Blacktown City is at the heart of the Western Sydney region, which is anticipated to deliver 60% of Sydney's population growth over the next 30 years. Almost a quarter of this growth will occur in Blacktown. The city is well serviced by employment land, public transport and road access and supported by core infrastructure in health, education, recreation, culture and leisure (Blacktown City Council, 2012).

Cultural Diversity

BCC LGA has the largest urban Aboriginal and Torres Strait Islander population in NSW with 8,195 people making up 2.7% of the population (compared to 1.2% in Greater Sydney and 2.5% NSW). Other than English, the most common languages spoken in households across the BCC LGA are Filipino/Tagalog, Hindi, Arabic, Punjabi and Samoan (Blacktown City Council, 2013a).

Education and Training

Blacktown City Council (2013a) report that in 2011, 41.9% of the Blacktown City population aged 15 years and over, held post school educational qualifications compared to 48.3% for Greater Sydney and 45.8% for New South Wales. At the same time, 57,120 people reported having achieved a tertiary qualification. From 2006-2011, the major changes in the qualifications of the population of Blacktown City were for residents with Bachelor or Higher Degrees (+12,701 persons), vocational qualifications (+5,282 persons) and Advanced Diplomas or Diplomas (+4,620 persons). Also, there was an increase in the number of people with no formal qualifications (+5,157).

In the Mt Druitt Precinct, 32.9% of the population aged 15 years and over held educational qualifications, compared to 42.8% for the Blacktown Precinct, and 51.7% for the North West Precinct, highlighting distinct variations in the levels of advantage and disadvantage within the City.

Economy

BCC LGA is a strong part of both the Sydney region and NSW. Gross Regional Product was \$13.616 billion in 2013/14, which represented 2.85% of the NSW economy (.id 2013). Solid construction activity is underway. Building approvals totalled \$1.236 billion in 2013/14, comprising 4.58% of all activity in NSW.

The primary sectors that make up the City's economy are manufacturing, wholesale trade, and transport and logistics. Combined they represent 35.1% of the total Gross Regional Product (GRP). Other significant sectors include education and training, retail, services and finance/insurance services. There were 17,590 registered businesses operating in the City (id. 2013).

The manufacturing sector is a strength of the City. It makes up 18% of the City's total GRP. This is significantly above the NSW State average of 10.6%. Over the past year, the growth in manufacturing, professional, and the technical services sectors (as a percentage of the total economy) has only increased marginally. However, this is still a significant achievement considering other parts of Sydney where growth in these sectors has declined.

The City's economy is diversifying. Some sectors are showing considerable growth over the last 12 months. Those sectors include Construction (+8.7%), Arts & Recreation Services (+4.3%), and Information Media & Telecommunications (+3.8%) (Blacktown City Council, 2013b).

Employment

Total employment in 2013/14 in Blacktown City was 153,167, with 110,471 employed locally. While this highlights that 28% of residents are employed outside the BCC LGA, the area also attracts a large number of workers. The City's unemployment rate was higher than Greater Sydney and NSW.

Blacktown City Council (2013a) reported that in 2011, 92.8% of the eligible labour force was employed. The City's unemployment rate (7.2%) was higher than in Greater Sydney (5.7%) and NSW (5.9%). However, the City's participation rate (62.7%) is higher than in Greater Sydney (61.7%) and NSW (59.7%). The participation rate measures the proportion of working age people who are either employed or actively seeking work.

6.10.2 Potential Impacts

Economic impacts were considered in terms of construction and operation of the facility. Construction impacts were examined in the context of flow on effects from construction industry activity.

Construction

The construction industry is a significant component of the economy, accounting for 7.3% of Gross Domestic Product (GDP) and employing almost one million workers across Australia.

Blacktown City Council Local Government Area has a strong construction base. ABS Census of Population and Housing data for 2011 revealed there were 9,358 people employed in the construction sector in the BCC LGA. This represents around 7% of the employee workforce (7.3% of the wider NSW workforce is engaged in construction). It is likely that a significant proportion of the workforce required to construct this facility could be sourced from the local area.

The industry has strong linkages with other sectors, so its impacts on the economy go further than the direct contribution of construction. The level of additional activity generated by a source industry can be expressed in terms of a multiplier. There are two types of multipliers:

• Production induced, comprising:

A first round effect – this includes all outputs and employment required to produce the inputs for the construction sector; and

An industrial support effect – this is the induced extra output and employment from all industries to support the production of the first round effect;

• Consumption induced – this refers to the demand for additional goods and services driven by increased spending by wage and salary earners across all industries arising from employment on the project;
The Australian Bureau of Statistics publishes *Australian National Accounts: Input-Output Tables 2008-09 (ABS Publications 5209.0).* These tables identify multiplier effects for each dollar of economic activity in each industry sector including the construction sector.

The following table estimates the impact on economic activity expressed in terms of output based on a Capital Investment Value of \$ \$6.934 million in the construction sector.

		Production Effe	Induced cts		
	Direct Effects	First Round Effects	Industrial Support Effects	Consumption Induced Effects	Total
Output multipliers	1	0.6463	0.6734	0.9891	3.3088
Output (\$)	\$6,934,126	\$4,481,526	\$4,669,440	\$6,858,544	\$22,943,636

Table 6.10a: Economic Multipliers

Note: Numbers may have been rounded.

Source: Lytton Advisory, Kue-S-Services Pty Ltd (17/4/2015) and ABS Australian National Accounts: Input-Output Tables 2008-09 (ABS Pub: 5209.0)

The project could generate a further \$9.150 million of activity in production-induced effects and \$6.858 million in consumption induced effects. Total economic activity generated by the construction of the proposed development could be up to \$22.944 million. Note that this is expressed in terms of the national economy. In the context of the Blacktown City economy, some of the multiplier impacts could reasonably expected to occur outside that economy.

While the output effects are beneficial and significant relative to expenditures on the proposed facility, they are very small relative to the overall output of the local economy. Also, this is a one-off impact as it is only sustained for the period of construction.

Regarding employment, ABS data revealed that on average 2.85 full time construction positions are sustained for every one million dollars of construction expenditure in a 12 month period. The following table looks at potential employment generation on this basis. Employment multipliers differ from output multipliers for each sector of the economy because the labour intensity varies between sectors.

		Production	Induced Effects		
	Direct Effects	First Round Effects	Industrial Support Effects	Consumption Induced Effects	Total
Employment Multipliers	1	0.64	0.7	1.34	3.68
Employment per \$m	2.85	1.83	1.98	3.81	10.48
Total job					
years created	19.76	12.69	13.73	26.42	72.60

Table 6.10b: Employment Generation

Note: Numbers may have been rounded.

Source: Lytton Advisory, Kue-S-Services Pty Ltd (17/4/2015) and ABS Australian National Accounts: Input-Output Tables 2008-09 (ABS Pub: 5209.0)

Including multiplier impacts, the proposed project could therefore have the potential to generate up to 72.60 job years during the construction phase.

While, the flow-on effects are beneficial and significant relative to the proposed facility, they are very small relative to the overall level of employment in the local economy. These are one-off employment impacts that are only sustained for the period of construction.

Data on employment location of Blacktown City residents highlights that 28% of workers are employed outside the Blacktown City Council Local Government Area. This reflects economic linkages between BCC LGA and other areas in Western Sydney and New South Wales. Consequently the level of actual employment generated in the BCC LGA might be expected to be even smaller, even though the proportion of workers engaged in the construction sector in the BCC LGA is similar to NSW overall.

Note that the multiplier effects estimated above are national, and not necessarily local. Care is needed in interpreting multiplier effects as the theoretical basis may produce estimates that overstate actual impacts in terms of employment and output. This is because relative prices are fixed and resource costs associated with drawing activity away from other sectors of the economy to a project are not explicitly taken into account. Nevertheless it is clear that the proposed construction activity will have a beneficial impact on the economy both in terms of output and employment.

In addition, a number of potential construction impacts can be qualitatively considered:

• In the short term, impacts on surrounding businesses from construction works will at worst be minor. Proposed construction mitigation measures are included in a Construction Environmental Management Plan in **Appendix 16** of this report;



- The proposed facilities operations will be undertaken within a building with • appropriately designed equipment to mitigate potential environmental impacts;
- In addition, as the proposed development is within an existing industrial estate and it will not result in reducing available land for beneficial community uses.

Operation

Economic impacts associated with operating the facility are expected to be sustained over a long period of time, reflecting the life of the asset being constructed. However, the annual value of these impacts mainly relates to incremental increases in employment, and are expected to be a fraction of the capital cost.

As such, many of these impacts are likely to be beneficial but not material either in terms of the overall economic impact of the project or relative to the local economy.

A number of operational impacts can be qualitatively considered:

- The proposed facility creates the opportunity to deal with additional liquid ٠ waste volumes in the region. To the extent that additional employment is generated as a result, that could be considered to be an economic benefit;
- The proposed facility is located relatively close to major arterial road networks. This should provide minimum impacts from truck movements both in terms of operating costs and safety (reducing risks of running on residential streets and improved site ingress and egress);
- A brownfield redevelopment of existing industrial land is likely to have • lower social and environmental impacts than a greenfield development where potential alternative uses of the site and surrounding sites may be less well established;
- The proposed expansion of activities on the site will provide for an increased labour force based on the site (including truck drivers), creating positive flow-on effects to the local economy. It will also enable J.J. Richards to better utilise its existing site;
- This upgraded facility will also better respond to increasing demands from ٠ Sydney Water and community expectations for efficient grease trap waste treatment.

6.10.3 Mitigation Measures

The following measures should be implemented to ensure positive socioeconomic impacts of the proposed developed are maximised:

Communicate to local business and community the expected start date of • construction and subsequent start date of operation to ensure local businesses have the opportunity to provide services;



- Seek to utilise local available labour force when recruiting for additional • employees, including where possible redeploying those that have been affected by job losses at the Seven Hills site and drawing on the pool of local unemployed;
- Operations will be undertaken within an enclosed building and air • emissions will pass through a carbon filter prior to their exhaust;
- Any complaints received relating to site operations are to be recorded and • attended to promptly.

6.10.4 Conclusions

In both the short and the long term, the potential impacts on social and economic resources are generally positive.

7 Risk Assessment

7.1 Environmental Risk Assessment

7.1.1 Methodology

The following environmental risk assessment (ERA) provides an analysis of the environmental risks that have been identified as part of this EIS. The environmental assessment in Section 6 of this report has identified the potential environmental impacts associated with the proposed development, described mitigation measures for those proposed impacts and identified any significant residual environmental impacts which still exist after the application of the proposed mitigation measures.

This environmental risk assessment has been based upon the methodology outlined in Standards Australia's HB 203:2006 Environmental Risk Management – Principles and Process, Australian Standard AS/NZ 4360:2004 Risk Management, and AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.

The analysis categorised levels of risk for a given event based on the significant effects (consequences) and manageability of those effects (likelihood). The measures of likelihood categories and the measures of consequences categories as well as the risk ranking matrix are detailed in Table 7.1a, Table 7.1b and Table 7.1c below:

Rank	Probability	Description
А	Almost Certain	Happens often and is expected to occur
В	Likely	Could easily happen and would probably occur
С	Possible	Could happen and has occurred elsewhere
D	Unlikely	Unlikely to happen but may occur
Е	Rare	Could happen, but only in extreme circumstances

Table 7 1a Measures	of Probal	hility Cater	ories for FRA
<i>Ladie</i> 7.1 <i>a</i> Measures	oj rrovat	niiiy Caiego	THES JOT ENA



Rank	Consequence	Description
Negative	e Consequences	
1	Extreme	Permanent and catastrophic impacts on the environment; large impact area: reportable incident to external agency; large fines and prosecution; operational constraints; substantial community concern
2	Major	Permanent and detrimental impacts on the environment; large impact area: reportable incident to external agency; may result in large fines and prosecution; operational constraints; high level of community concern
3	Moderate	Substantial temporary or minor long term detrimental impacts on the environment; moderate impact area; reportable incident to external agency; action required by reportable agency; community interested
4	Minor	Minor detrimental impacts on the environment; small impact area; not reportable incident; no operational constraints; uncontroversial project; no community interest
5	Low	Nil or temporary impacts to the environment, small or isolated impact area; not reportable incident; no operational constraints; uncontroversial project; no community interest
Positive	Consequences	
1	Extreme	Permanent and extremely beneficial impacts on the environment or population; large impact area
2	Major	Permanent and beneficial impacts on the environment or population; large impact area
3	Moderate	Substantial temporary or minor long term beneficial impacts on the environment or population; moderate impact area
4	Minor	Minor beneficial impacts on the environment or population; small impact area
5	Low	Nil or temporary beneficial impacts on the environment or population; small or isolated impact

Table 7.1b Measures o	f Consequence	Categories for	ERA
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Table 7.1c Risk Matrix for ERA

Likelihood		Consequences								
		1 Extreme	2 Major	3 Moderate	4 Minor	5 Low				
А	Almost certain	VH	VH	Н	Н	М				
В	Likely	VH	Н	Н	М	М				
С	Possible	Н	Н	М	М	L				
D	Unlikely	Н	М	М	L	L				
Е	Rare	Н	М	L	L	L				

7.1.2 **Environmental Risk Analysis**

Considering the project scope, mitigation measures and cumulative impacts described in Section 6 of this report, Table 7.1d provides an assessment of the mitigated risks associated with the Project, or the residual risk analysis. This has been completed for each potential environmental impact identified in Table 7.1d based on the likelihood of occurrence and potential environmental consequence.

Environmental Issue Unmitigated Potential Impacts	Probability	Consequence	Potential Risk prior to Mitigation	Proposed Mitigation Measures	Residual Probability	Residual Consequence	Potential Risk after Mitigation
Land							
• Liquid waste or washdown water discharging from the site and entering Council's drainage system or the waterway	С	3	Μ	Refer Section 6.1.3 of this EIS.	E	3	L
 system of the waterway to the north; Stormwater coming in contact with dust, oil etc on trafficked areas and entering Council's drainage system or the 	В	3	Н		C	3	М



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waterway to the north							
prior to treatment;							
•Oil and petroleum	C	3	Μ		С	3	Μ
spillages from							
equipment and vehicles;							
Stormwater	1				1		1
• Liquid waste or	C	3	Μ	Refer Section 6.2.3 of this	E	3	L
washdown water				EIS.			
discharging from the							
site and entering							
Council's drainage							
system or the waterway							
• Stammatan again a in							
• Stormwater coming in	D	3	Μ		Ε	3	L
contact with dust, oil							
etc on traincked areas							
drainage system or the							
waterway to the north							
prior to treatment:							
•Local flooding	р	2	м		D	2	М
inundating existing and	D	3	IVI		D	3	IVI
proposed buildings.							
• Oil and petroleum	Б						
spillages from	E	3	L		E	3	L
equipment and vehicles:							
Groundwater	<u>.</u>	<u> </u>	<u> </u>		<u> </u>		
• Liquid waste or	С	3	М	Refer Section 6.3.3 of this	Е	3	L
washdown water	_	-		EIS.		_	
discharging from the							
site into the							
groundwater system;							
• Stormwater coming in	D	3	м		D	3	м
contact with dust, oil etc	D	5	101		D	5	111
on trafficked areas and							
discharging into the							
groundwater system;	Б	2	т		Б	2	т
• Oil and petroleum	E	3	L		E	3	L
spillages from							
equipment and vehicles;							
A							
Air		2		Defen Section (4.2 of this	D	2	М
• Unloading and	С	3	М	Refer Section 6.4.3 of this	D	3	М
• Unloading and processing of liquid	С	3	М	Refer Section 6.4.3 of this EIS.	D	3	М
 Air Unloading and processing of liquid organic waste; Discharge to sewer of 	С	3	M	Refer Section 6.4.3 of this EIS.	D	3	М
 Air Unloading and processing of liquid organic waste; Discharge to sewer of liquid waste and loading 	C B	3	M	Refer Section 6.4.3 of this EIS.	D	3	M M
 Air Unloading and processing of liquid organic waste; Discharge to sewer of liquid waste and loading of sludge: 	C B	3	M	Refer Section 6.4.3 of this EIS.	D	3	M M
 Air Unloading and processing of liquid organic waste; Discharge to sewer of liquid waste and loading of sludge; Unloading and loading 	C B B	3 2 3	M H H	Refer Section 6.4.3 of this EIS.	D D D	3 2 3	M M M
 Air Unloading and processing of liquid organic waste; Discharge to sewer of liquid waste and loading of sludge; Unloading and loading of used oil and 	C B B	3 2 3	M H H	Refer Section 6.4.3 of this EIS.	D D D	3 2 3	M M M
 Air Unloading and processing of liquid organic waste; Discharge to sewer of liquid waste and loading of sludge; Unloading and loading of used oil and industrial oily water; 	C B B	3 2 3	M H H	Refer Section 6.4.3 of this EIS.	D D D	3 2 3	M M M



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Road dust on							
trafficked areas;	D	4	L		D	4	L
Noise	<u> </u>	<u> </u>				I <u> </u>	
• Unloading and	В	4	М	Refer Section 6.5.3 of this	В	4	М
processing of liquid				EIS.			
organic waste;							
 Discharge to sewer of 	С	4	М		Е	4	L
liquid waste and loading	C	•			-		-
of sludge;							
• Unloading and loading	B	1	м		F	4	T
of used oil and	Б	-	111		L	7	L
industrial oily water;	D	4	М		D	4	М
• Vehicle movements;	Б	4	11/1		D	4	IVI
• Road dust on	D	4	т		D	4	т
trafficked areas;	D	4	L		D	4	L
Ecology	G	2			Б	2	T
• Liquid Waste	C	3	M	Refer Section 6.6.3 of this	E	3	L
aite and entering				E15.			
Council's drainage							
system or the waterway							
to the north.							
Washdown water							
entering Council's	D	3	Μ		E	3	L
drainage system or the							
waterway to the north;							
• Stormwater coming in	В	3	Η		С	3	Μ
contact with dust, oil etc							
on trafficked areas and							
entering Council's							
drainage system or the							
waterway to the north							
prior to treatment;							
• Local flooding	Е	3	L		Е	3	L
inundating existing and		-				-	_
WMF buildings;							
	C	2	М	Defen Section (72 of this	Б		
•Additional parking on	C	3	IVI	EIS	E		
• Ui ah trugh numhara	D	4	т	EIS:	D	4	т
• High truck humbers	D	4	L		D	4	L
residential and truck							
sensitive areas.							
•Unaccentable traffic	~				-		-
noise:	C	4	Μ		D	3	L
•Vehicles reversing							
onto Rayben Street;	C	3	М		D	3	Μ
Visual Amenity							
Demolition of the	С	4	М	Refer Section 6.8.3 of this	Е	4	L
existing industrial				EIS.			
building on the site;							



Construction of the	С	4	Μ	E	4	L
Organics Building,						
including tanks and						
ancillary equipment;	C	4	М	D	4	I.
Construction of the Oil	C		171	D	•	Ľ
Storage Area, including						
tanks and ancillary						
equipment;	G	4		D	4	Ŧ
Equipment for	C	4	M	D	4	L
unloading, treatment						
and loading liquid						
waste;						

7.1.3 Conclusions

The environmental risk analysis presented in Table 7.1d indicates how the assessments and mitigation measures contained in Section 6 have assisted in understanding the proposed development and reduced the environmental risk associated with it.

In addition to these risks, the proposed development will create a number of beneficial effects, including social and economic benefits to the local area such as capital investment and creation of additional jobs.

7.2 **Assessment for Potential Hazardous and Offensive Issues**

7.2.1 Methodology

State Environmental Planning Policy No.33 (The Policy) Hazardous and Offensive Development sets out to:

- Amend the definitions of hazardous and offensive industries where used in environmental planning instruments; and
- 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 the Policy; and
- Ensure that in determining whether a development is a hazardous or ٠ offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account; and
- 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;

The following assessment for hazardous and offensive development has been undertaken generally in accordance with the NSW Department of Planning Hazardous and Offensive Development Application Guidelines (SEPP 33 Guidelines).

7.2.2 **Potential Hazardous Issues**

For development proposals classified as 'potentially hazardous industry' the policy establishes a comprehensive test by way of a preliminary hazard analysis (PHA) to determine the risk to people, property and the environment at the proposed location and in the presence of controls. Should such risk exceed the criteria of acceptability, the development is classified as 'hazardous industry' and may not be permissible within most industrial zonings in NSW.

In identifying a potentially hazardous industry, the SEPP 33 Guidelines (Section 7) recommends salient information is obtained as follows:

Material *1	Quantity	DG Class	Type of Store	Distance *2	Annua Move	l Road ments
					Number	Size
Liquid Grease Trap	13 x 30 kL	NA	Bulk Steel	>14m	1600 (in)	15 t (ave)
Waste		NA	Tank		420 (out)	20 t (ave)
Liquid Food Waste	5 x 30 kL	NA	Bulk Steel	>14m	1800 (in)	10 t (ave)
		NA	Tank		900 (out)	20 t (ave)
BOC Lime Slurry	30 kL	NI A	Bulk Steel	14m	4	26 t (ave)
		NA	Tank			
Sodium Hydroxide	2000 L	o	1000 L	>14m	12	2 t (ave)
(white caustic soda)		8	IBC			
Sodium Hypochlorite	400 L	o	200 L	>14m	12	0.2 t (ave)
		8	Drum			
Ezi-Clean Blast-Off	60 L	8	20 L Pales	>14m	4	0.2 t (ave)

Organic Waste Building

*1 SDSs of these are included in Appendix 8

*2 distance in metres from the boundary

Appendix 3 of the SEPP 33 Guidelines does not identify liquid food and grease trap plants as potentially hazardous.

On the basis of the above information, the activities in the proposed Organics Building are not potentially hazardous and a Preliminary Hazard Analysis is not required.

Table 6 of the Applying SEPP33 Hazardous and Offensive Development Application Guidelines shows Class 8 PGII goods with manifest thresholds over 2,500 L (2.5t) requiring WorkCover NSW notification. This facility may require WorkCover NSW notification.



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MARCH 2016

Oil Storage Area

Material	Quantity (toppos)	DG Class	Type of Store	Distance	Annua	l Road
.1	(tonnes)		Store	- 2	Number	Size
Used Oil	4 x 40 t	C1	4 Steel Tanks to AS1692	12m	See below	See below
Used Oil	4 x 120 t	C1	4 Steel Tanks to AS1692 and AS1480	17m	1143 (in) 190 (out)	7 t (ave) 40 t (ave)
Oily Water	1 x 40 t	C1	1 Steel Tanks to AS1692 and AS1480	12m	See above	See above
Industrial Oily Water	2 x 60 t	C1	2 Steel Tanks to AS1692 and AS1480	23m	250 (in) 25 (out)	8 t (ave) 8 t (ave)
Non Compliant Product (Used Oil / Industrial Oily Water)	1 x 20 t	3	1 self bunded steel tank to AS1692 and AS1480	14m from north boundary and 19m from east boundary	50 (in) 20 (out)	8 t (ave) 20 t (ave)

*1 SDSs of these are included in Appendix 8

*2 distance in metres from the boundary

Non-compliant product is unplanned and although not encouraged is received from time to time. Used oil delivery and unloading operations (refer Section 4.2 for infrastructure requirements) are described below:

- Drivers are to make a preliminary assessment of oils prior to loading e.g. • uncharacteristic odour, colour, viscosity etc;
- If uncertain, the driver is to notify the Supervisor for directions; •
- Upon arrival at the site, collection vehicles will drive into the bunded • Unloading and Loading Bay within the Oil Storage Area (refer Drawings **RI456-D0-21** to 23);
- A representative sample of used oil will be initially taken from the ٠ collection vehicle;
- If used oil meets acceptance criteria ($>61^{\circ}$ C by a flash test), commence the ٠ unloading process;

- If used oil does not meet acceptance criteria, the Supervisor will be notified • for directions;
- These directions will be to unload the load into in the 20 kL non-compliant product tank to the north of the Oil Storage Area OR to remove the load to another appropriately licenced site;

For the non-compliant product tank (20 kL of potentially Class 3 material):

- Table 1 of SEPP 33 refers to the Figure 8 graph for determination of the screening method for 3PGI (this is a worst case scenario), which provides a recommendation of >8m separation distance. The development complies with this (12m);
- Table 5 provides an annual number of vehicles movements of 500 (weekly • number of 30) for loads greater than 1 tonne as the transportation threshold. The development proposes significantly less vehicle movements (50 annually) than this;

For the other used oil tanks:

Section 7.1 of the SEPP 33 Guidelines includes the following:

If combustible liquids of class C1 are present on site and are stored in a separate bund or within a storage area where there are no flammable materials stored they are not considered to be potentially hazardous. If, however, they are stored with other flammable liquids, that is, class 3PGI, II or III, then they are to be treated as class 3PGIII, because under these circumstances they may contribute fuel to a fire.

On the basis of the above information, the activities in the proposed Oil Storage Area are not potentially hazardous and a Preliminary Hazard Analysis is not required.

Table 6 of the Applying SEPP33 Hazardous and Offensive Development Application Guidelines shows Class 3 PGII goods and Class C1 goods (stored separately) with manifest thresholds over 2,500 L (2.5t)and 100,000 L (100t) requiring WorkCover NSW notification. This facility will require WorkCover NSW notification.

A Hazard Identification and Risk Assessment Analysis is also provided in Appendix 15.

Potential Offensive Issues 7.2.3

For developments identified as 'potentially offensive industry', the minimum test for such developments is meeting the requirements for licensing by the DECCW or other relevant authority. If a development cannot obtain the necessary pollution control licences or other permits, then it may be classified as 'offensive industry', and may not be permissible in most zonings.

Organic Waste Building

Appendix 3 of the SEPP 33 Guidelines identifies grease trap plants as potentially offensive with possible air and water impacts. Sections 6.2 and 6.4 and **Appendix 11** of this EIS address potential impacts and mitigation measures for water emissions from the proposed development, whilst Section 6.4 and **Appendix 12** address potential impacts and mitigation measures for air emissions.

Salient mitigation measures include:

- The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;
- The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the process tanks for treatment;
- Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and irrigation;
- Overflow from the water tank will be treated prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);
- All tanks will be vented through an appropriately sized carbon filter;
- The DAF will be fully enclosed and vented to the carbon filter;

If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating preventative actions. On the basis of the above information and licencing by the EPA, the proposed liquid food and grease trap waste operations are considered not offensive.

Oil Storage Area

Appendix 3 of the SEPP 33 Guidelines does not identify used oil and industrial oily water operations as potentially offensive. Sections 6.2 and 6.4 and **Appendix 11** of this EIS address potential impacts and mitigation measures for water emissions from the proposed development, whilst Section 6.4 and **Appendix 12** address potential impacts and mitigation measures for air emissions.

Salient mitigation measures include:

- The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;
- The unloading and loading bays will be bunded (including 200mm edge • bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;
- Any liquids from the inground sumps will then be transferred to the used oil • or oily water tanks for aggregation and transport to an appropriately licenced facility:
- Floor levels within the proposed building are greater than 0.5m above the • Blacktown City Council Probable Maximum Flood (PMF) event;
- Roofwater will be collected in a water tank for reuse in washdown and • irrigation;
- Overflow from the water tank will be treated prior to discharge from the site:
- All storage tanks and the DAF will be within a 600mm high bunded tank farm (approximate capacity 301 m3);

On the basis of the above information and licencing by the EPA, the proposed used oil and industrial oily water operations are considered not offensive.

7.3 **Preliminary Hazard Identification and Risk Analysis**

7.3.1 Methodology

A Hazard Identification and Risk Assessment Workshop was held and has been used to identify potential hazardous situations and undertake a qualitative risk assessment. Attendees at this workshop included staff from JJ Richards & Sons Pty Ltd and Duggan & Hede Pty Ltd.

A report based on this workshop is included as Appendix 15. This report has been structured to:

- Review the suitability of the site for the proposed activities (Section 3); .
- Review salient compliance issues for the oil storage area with AS1940 The ٠ storage and handling of flammable and combustible liquids (Section 3);
- Prepare a Hazard Identification Word Diagram, including an assessment of ٠ potential off site consequences;
- Prepare a Risk Assessment of activities on the site; ٠

7.3.2 **Conclusions**

In conclusion, the site is located within a long established industrial area. Major transport routes from the site to the M7 freeway are also through industrial areas.

The closest housing is approximately 420 metres to the north. There is also a buffer of some 900 metres to the closest housing to the east and west of the site.

Organic materials handling and treatment will be undertaken within a fully enclosed building and oil storage and handing are within roofed areas. Appendix 3 of Applying SEPP 33: Hazardous and Offensive Guidelines does not identify liquid food and grease trap waste as potentially hazardous. This EIS concurs with this conclusion.

Equipment associated with the storage and handling of used oils will be designed to comply with AS1940. The major risk associated with the site involves the receipt of non-compliant used oil product ie with flash point <61°C (flammable) and subjecting such to heat sources eg naked flames. Established procedures exist to deal with such occurrences.

As such, there will be minimal impacts from the site on adjoining land uses.

8 Environmental Management Plans

8.1 Integrated Management System (IMS)

8.1.1 Overview

J.J. Richards has developed an Integrated Management System (IMS) linking Quality, Health & Safety and Environmental Systems within the company. The inextricable links between these issues and the need to establish a base for the consistent application of standards to meet operational and legislative requirements, have made this an important step towards maintaining 'due diligence' throughout the Company's operations.

Under the IMS each depot is provided with a Site Based Management Plan (SBMP) for the day-to-day management of their operations.

The benefits of an IMS, as opposed to individual plans, is the integration of quality, health and safety, risk management, emergency response and environmental management issues into a document which can be practically applied at an operational level, minimising duplication.

J.J. Richards' IMS/SBMP is intranet based and can be viewed at any of our depots upon request.

8.1.2 Quality Management (Integrated into IMS)

J.J. Richards operate a corporate quality system throughout the organisation and have been certified by SAI Global to AS/NZS ISO 9001:2000.

The quality system has been integrated with other management functions, with each of the functional areas of management responsible for integrating quality requirements into its work procedures. Employees of the company are made aware of this policy during their induction and each employee is responsible for the quality of his or her daily work activities.

A Quality Certification Certificate is provided in Appendix 17.

8.1.3 Corrective Actions

J.J. Richards' Quality System uses Corrective Action Requests (CARs) as a management tool to:

- Identify and resolve issues (business improvement);
- Assign a responsible person/s to not only fix the problem, but ensure it doesn't happen again;

Corrective and preventive action covers all aspects of J.J. Richards' management and operations. Examples include (but are not limited to); the results of internal and external audits, compliance concern, HSE risks or hazards, training issues and so on.

8.1.4 **Management Review**

Management reviews are designed to review the integrated management system (IMS), at planned intervals, to:

- Ensure continuing suitability and effectiveness; and
- To assess depot progress and conformity with the System; •

Management reviews cover all aspects of the IMS. The critical agenda items are set out in F1-1 Management Review. Directors and Managers are encouraged to expand on the agenda items to incorporate operational aspects and their productivity measures to make the review a holistic process.

The management review document is both an action plan and a record and is conducted at both senior and operational levels:

- It identifies actions required, by whom and when; •
- It records actions taken and completed, and actions carried over from the • last meeting;

Management review involves senior management, including:

- Directors / Depot Managers; •
- Depot Managers & Departmental Managers/Supervisors;

Other staff or management delegates may also be involved in management review, depending on requirements.

The IMS Team uses any improvements identified at management reviews to update the system.

8.1.5 **Organisation Structure**

The following personnel hold particular responsibilities and authorities:

Board of Directors

It is the responsibility of the Board of Directors to clearly establish quality, environmental and safety policies and strategies.

Construction Supervisor

The Construction Supervisor (CS) will report to the Construction Manager (CM) for construction activities. This position is only applicable to the construction activities. The responsibilities of the Construction Supervisor under the EMP include:

- Ensuring daily work practices promote environmental management, and do not cause adverse effects to the environment;
- Following all relevant management plans as prepared for the site •



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- Attending environmental awareness training and provide assistance to other • staff members with relation to environmental matters;
- Inspecting site activities on a daily basis;
- Reporting any environmental incidents or complaints as soon as is possible; • and
- Filling in Incident/Accident Report Form/Register;

Regional Manager

The Regional Manager (DM) is responsible for:

- Reviewing the implementation, maintenance and monitoring of the Group's quality, environmental and safety systems and to ensure that it meets the requirements of AS/NZS ISO9001: 2000 Quality Management Systems, AS/NZS 14001:1996 Environmental Management Systems Specification and AS/NZ 4801:2001 Occupational Health & Safety Management Systems;
- Ensuring that the quality, environmental and safety systems are regularly . reviewed and are suitable and effective in achieving the company's goals and objectives;
- Chairing management review meetings; ٠
- Selection, training and motivation of staff;
- Reviewing complaints and give appropriate instructions to staff; •

Depot Manager

The Depot Manager (DM) is responsible for:

- The implementation, maintenance and monitoring of the Group's quality, • environmental and safety systems and to ensure that it meets the requirements of AS/NZS ISO9001: 2000 Quality Management Systems, AS/NZS 14001:1996 Environmental Management Systems Specification and AS/NZ 4801:2001 Occupational Health & Safety Management Systems;
- Ensuring that the quality, environmental and safety systems are regularly ٠ reviewed and are suitable and effective in achieving the company's goals and objectives;
- Chairing management review meetings; •
- Selection, training and motivation of staff; •
- Management representative for quality; •
- Action complaints and give appropriate instructions to staff;

Depot Supervisor

The Depot Supervisor (DS) is responsible for:

- Direction and supervision of the line personnel responsible for the quality activities of the company and maintenance of conformity to AS 9000 series as applicable to the individual depot;
- Collaboration with the operations manager in matters relating to quality, quality audits, implementation and verification of solutions to quality problems;
- Ensure environmental implementation strategies are implemented including notification of likely effected persons and site inductions;
- Undertake daily site inspections;
- Record and action public complaints;
- Record and action environmental incidents;

All Staff

• Implementation and maintenance of the quality system within their workplace.

8.2 Workplace Health and Safety

8.2.1 Compliance with Workplace Health & Safety Standards

J.J. Richards' Integrated Management System ensures compliance with Federal, State and Local Legislation, Australian Standards and Industry Codes of Practice. The company employs a Human Resources & Safety Manager, Safety and Operations Support personnel, National Corporate Systems Manager, Environmental Manager, Fleet Manager and Finance Manager to oversee compliance at all levels.

8.2.2 Staff Responsibility for OHS

J.J. Richards believes it is the responsibility of every employee to be aware of the safety of the community they are servicing, their fellow workers and themselves at all times. All employees are made aware of the hazards in the workplace and risk control measures as part of generic and site specific inductions at the time of employment. The Company's Integrated Management System promotes ongoing employee participation in the hazard identification, reporting, risk assessment and risk management processes.

8.2.3 Safe Operating Procedures / Specific Safety Instructions

Work procedures are documented as part of J.J. Richards' Quality Management System (certified by QMS in line with AS/NZS ISO 9001:2000). These procedures are constantly under review in line with the development of J.J. Richards' Integrated Management System. In addition to the work procedures provided via QA, employees are provided with Site Specific Induction documentation that outlines the safety, quality and environmental requirements of their specific tasks.

8.2.4 Maintaining, Inspecting and Assessing Plant Hazards

Each J.J. Richards depot undergoes quarterly General Hazard Inspections (GHI's) of all plant, equipment and work areas. J.J. Richards is taking a proactive approach to risk management with the emphasis on identifying hazards before they result in an accident or incident.

8.2.5 **Storage and Handling of Hazardous Substances**

All areas using hazardous substances are required to have current SDS register and file in a readily accessible location.

J.J. Richards comply with:

- AS1940 Storage and Handling of Flammable and Combustible Liquids;
- Local Government Regulations with regards to bulk storage of diesel;

Hazardous substance risk assessment is a requirement for chemicals that are classed as hazardous substances.

8.2.6 Identifying, Assessing and Controlling Risks Associated with Manual Handling

Manual handling is specifically assessed using a Critical Manual Handling Task Assessment Worksheet, enabling safety staff to identify hazards and determine appropriate control measures to minimise the likelihood of manual handling injuries.

8.2.7 **Personal Protective Equipment**

J.J. Richards supplies appropriate Personal Protective Equipment (PPE) to all employees in accordance with their job description and contract requirements. PPE procedures are detailed in SBMP Section 10.6 PPE Assessment.

8.2.8 **First Aid**

All depots have trained First Aid Officers on staff and all accidents are reported and investigated. All depots and vehicles contain First Aid Kits. First Aid is detailed in SBMP Section 14.1-6 First Aid Assessment.

8.2.9 Training

H&S Training / Recording of Training and Induction

Training is incorporated into J.J. Richards' Integrated Management System - Site Based Management Plan.

Induction:

All staff undergo general and workplace specific induction upon employment. Follow-up induction is undertaken three months after employment to ensure that the staff member is displaying the desired level of competency. A follow up reinduction for all staff is undertaken every two years.

Training:

An annual "*Training Needs Analysis*" is undertaken by Branch Managers to ensure that all staff have the skills and display a level of competency to perform their tasks safely and efficiently.

Statutory Qualifications:

Prior to commencement of work in a particular position, personnel are required to provide evidence of licences and certificates to operate particular plant and equipment. These are checked six monthly to ensure they are still current. This process is detailed in SBMP Section 7.3 - Statutory Qualifications.

Workplace Alerts:

Another ongoing control measure introduced by J.J. Richards' IMS Division is the "*Workplace Alert*" system, which identifies issues that require immediate attention across all areas (managers and staff) of the business and outlines how best to address these issues.

8.2.10 Reporting

Incident Investigation Procedure

In line with legislative requirements, J.J. Richards has implemented a comprehensive procedure for reporting and investigating accidents and incidents.

In addition to accident/incident reporting, J.J. Richards has developed an employee hazard reporting system to ensure that hazards detected in the workplace are managed and actions recorded.

8.2.11 Consultation

Workgroups and Team Briefs

Consultation between all levels of the Company is paramount to a successful system. The Site Based Management Plan requires depots to establish Consultative Workgroups with representatives from all areas or, where numbers are small, conduct team briefs on a regular basis to discuss Safety, Environmental and Quality issues. The issues and outcomes of these meetings are recorded.

8.2.12 Performance

Recording and Analysing Statistics

Recording and analysis of Occupational Health and Safety performance is undertaken Company wide. This process is currently being streamlined in line with J.J. Richards' Integrated Management System.

Imparting of OHS Performance Information to Employees

Employees are informed about OHS performance via Team Briefing and Consultative Workgroups.

8.2.13 Rehabilitation

J.J. Richards operate a planned workplace rehabilitation program in line with its Rehabilitation Policy. The aim of the program is to allow for the early and safe return of employees to normal duties.

8.3 Environmental Sustainability

8.3.1 Accreditations / Environmental Management System

J.J. Richards is committed to obtaining accreditation to ISO 14001:2004. The Company has developed and implemented an Integrated Management System (IMS) incorporating Safety, Environment and Quality. The environmental component has been developed with the aim of achieving external Environmental Management System (EMS) certification to ISO 14001:2004 under SAI (Global)'s Certified Environmental Management Scheme.

8.3.2 Commitment to Improvement of Environmental Performance & Outcomes

"J.J. Richards & Sons Pty Ltd is committed to minimising the environmental impact of our operations through continual improvement of environmental management practices."

J.J. Richards works closely with its clients to implement, where possible, the "avoid, reduce, reuse, recycle" philosophy of the waste management hierarchy to minimise the amount of waste disposed to landfill.

As a recognised leader in the industry for innovation, J.J. Richards has been responsible for developing and introducing several world firsts in "best practice" waste management equipment and process. These innovations are all targeted towards creating the most efficient processes and equipment with the least environmental impact.

As part of J.J. Richards' environmental commitment, the company is an active participant in:

- The Greenhouse Challenge to reduce greenhouse gases;
- The National Packaging Covenant aimed at minimising packaging waste;

8.3.3 Environmental Policy

J.J. Richards' environmental policy was first implemented in conjunction with the company's Quality Management System in March 1996. The environmental policy objectives are regularly reviewed to maintain high standards and improve the company's environmental performance.

8.3.4 Qualified Personnel

J.J. Richards employs an Environmental Manager, an Environmental Health Officer, ten Waste Minimisation Educators, a Human Resources & Safety Manager and two

Technical Services Officers throughout Australia. Collectively, this experienced resource base ensures that J.J. Richards meets its environmental legislative requirements.

8.3.5 Innovative Waste Management

J.J. Richards has an interest in:

- The Ti Tree BioEnergy Facility located near Ipswich in South East Queensland. The Ti Tree facility uses specially designed landfill cells and moisture to rapidly generate energy providing gases (biogas) which can be used to generate green power;
- EnviroCom Australia the specialist environmental consulting division of J.J.Richards. EnviroCom can provide a suite of technical, education and training services including: waste auditing, recycling and waste minimisation programs, environmental education and training;
- J.J. Richards has its own engineering company J.J. Richards Engineering Pty Ltd which manufactures customised waste management plant and equipment for J.J. Richards and its customers. This research and development division has been responsible for several world firsts in waste management. This ensures access to the latest in waste management technology, greater operational efficiencies, exceptional service and personalised waste solutions.

8.4 Reliability

J.J. Richards prides itself on having the best industrial relations record of any major waste management company in Australia with only 2 lost workdays in over 79 years of operation. The Company has not seen any industrial action in over 29 years, which equates to uninterrupted, reliable, trouble free waste services.

8.5 Construction Environmental Management Plan

A Construction Environmental Management Plan is included in Appendix 16.

Much of the core processing equipment and tanks will be manufactured off site or relocated from the existing Seven Hills facility. The development will involve the demolition of approximately $2,000 \text{ m}^2$ of existing concrete pavement and construction of:

- Organics Building;
- Oil Storage Area;
- Stormwater quality infrastructure;
- Fire services;

- Concrete pavement; •
- Tanks and equipment; •
- Ancillary activities and connection of services; •

As such, the principal site activities involved in the construction phase would be:

- Demolition of existing concrete pavement;
- Ground preparation and excavation for foundations; •
- Concrete foundations, floor slabs and pavements; ٠
- Industrial building / roof structure construction; ٠
- Drainage works and associated pollution control devices; •
- Installation of installation of tanks and equipment; •
- Connection of services: •

Plant and equipment required for these activities will include:

- Excavators and trucks:
- Backhoes and bobcats; •
- Concrete pumps; •
- Rollers, grader and water truck; •
- Cranes:

It is anticipated the construction would occur over a six month period. Normal working hours during construction will be 6.00am to 6.00pm Monday to Saturday.

The Construction Environmental Management Plan includes Construction Control Plans for the following elements:

- Erosion and Sedimentation Controls; •
- **Dust Controls:** •
- Noise Controls: ٠
- Solid Waste Minimisation; •
- Fuel and Hazardous Substances; •

The main environmental impacts identified during field inspections and development of this management plan will be:

- Sediment movement to the drainage reserve to the north of the site; •
- Build-up of sediment on surrounding access roads leading to potential • contamination of stormwater runoff:

- Dust emissions construction and operational works on the nearby premises;
- Noise from construction and operational works on the nearby premises;

The salient actions, to minimise impacts during construction, proposed in the Construction Environmental Management Plan are:

- Specific site inductions for all employees and contractors;
- Prior to construction commencing sediment fences are to be installed along part of northern and western perimeter boundaries of the site;
- Ensure that all affected persons have been informed about the project and are aware of the potential impacts;
- Construction activities should not occur outside the hours of 6.00am to 6.00pm Monday to Saturday. No activity should occur on Sundays;
- Machinery and equipment generating excessive noise (eg due to poor maintenance) will not be used;
- Domestic refuse to be collected in a suitable container and removed from the site weekly;
- Soil wastes created during construction are not to be stored on site;
- Excess wet concrete is to be removed off site by the concrete supplier;
- Steel will be collected in separate bins and removed for recycling;
- Other solid wastes (e.g. timber formwork, waste set concrete, etc) to be removed to an approved landfill;
- All refuelling is to take place off site if possible;
- Refuelling is to be supervised by a designated member of staff to reduce the risk of spills;
- Any fuel or oil spills are to be cleaned up immediately and contaminated soils to be removed off site for disposal at an appropriately licensed landfill;
- No maintenance or servicing of vehicles is to take place at the site.

8.6 Site Based Management Plan

A Site Based Management Plan will be prepared in accordance with J.J. Richards' Integrated Management System (IMS) linking Quality, Health and Safety and Environmental Systems. Extracts from this plan, together with Company policies and relevant procedures are included in **Appendix 17**. Sections included in this plan will include:

• SEMP Operation Documents such as:

Workplace Registration;

Supplier- Subcontractor Assessment;



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- Consultation and Communication;
- Hazard Identification;
- Risk Management;
- Induction and Training;
- Rules and Permits;
- Plant and Equipment Management;
- Health, Safety and Environmental Risks;
- Human Resource Management;
- Customer Service;
- Accidents-Incidents Management;
- **Emergency Management;**
- Return to Work and Rehabilitation;
- Computer-Email Usage;
- Fitness for Work;
- Training Guides; ٠
- Work Procedures, Standard Work Instructions; •
- Workplace Alerts; •
- Risk Assessments; •
- **Emergency Procedures.**

9 Conclusions

J.J. Richards & Sons Pty Ltd was established in 1932 and is one of the largest Australian owned waste management Companies in Australia. Today the company employs over 1500 people, performs domestic garbage, recycling, sanitary and green waste services under contract for over 40 local authorities, and performs a variety of solid, hazardous and liquid waste services for over 70,000 commercial customers in Australia and New Zealand.

The proposed Liquid Waste Facility (LWF) at 14 Rayben Street Glendenning will:

- Treat grease trap waste as defined in the Protection of the Environment Operations Act 1997 (POEO Act). This treatment will generally involve separating liquids from solids and discharging treated liquids as trade waste to Sydney Water's sewer system. The resultant solids or sludge will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Store and aggregate liquid food waste as defined in the Protection of the Environment Operations Act 1997 (POEO Act). This waste will also be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;
- Store used oil for resource recovery, aggregation and transport to rerefining and other facilities for treatment and reuse;
- Store and treat industrial oily water this treatment will generally involve separating used oils, hydrocarbons and solids and discharging treated liquids as trade waste to Sydney Water's sewer system;

Liquid waste for the facility will be collected in tankers from various premises throughout Sydney and transported to the proposed facility for temporary storage and/or treatment.

Equipment for unloading, treatment and loading all liquid food and grease trap waste will be located within a fully bunded and enclosed 1100 m^2 Organics Building. Equipment for unloading, resource recovery, aggregation and loading all used oil and industrial oily water will be located within a fully bunded and roofed 700 m² Oil Storage Area.

Loading and unloading areas will have external bunding and inground sumps for spill control. There will be no discharge of process liquids or sludges from the facility to the northern drainage channel or from the site, other than to sewer etc.

It is intended to develop and operate the site in accordance with environmental best practices and incorporate:

- A range of mitigation measures as described in Section 9.1;
- Ecologically Sustainable Principles as described in Section 9.2;



Summary of Mitigation Measures 9.1

The major mitigation measures incorporated in the design include:

		Environmental Element								
Mitigation Measure	Land	Stormwater	Groundwater	Air	Noise	Ecology	Traffic			
Site Layout and Civil Works										
• Trafficked areas are sealed;	Х	Х	Х	Х	Х	Х	Х			
• Appropriate distances to sensitive receivers;				Х	Х		Х			
• 28 passenger vehicle spaces in accordance with AS2890.1 for use by administration / management / operation staff and visitors will be provided;							Х			
• 14 heavy vehicle parking spaces;							Х			
• Commercial vehicles and tankers can enter and leave the site in a forward direction;							Х			
Organics Building										
• The building will be roofed and walled to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;	Х	Х	Х	Х	Х	Х				
• Electric operated roller shutters to prevent the ingress of rain and egress of odours and unacceptable air emissions;	Х	Х	Х	X	Х					
• The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;	Х	Х	х							



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•	Any liquids from the inground sumps will then be transferred to the process tanks for treatment;	X	Х	Х				
•	Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;	Х	Х	Х				
•	Roofwater will be collected in a water tank for reuse in washdown and irrigation;	Х	Х	Х				
•	Overflow from the water tank will be treated prior to discharge from the site;	Х	Х	Х				
•	All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 218 m3);	Х	Х	Х				
•	All tanks will be vented through an appropriately sized carbon filter;				X			
•	The DAF will be fully enclosed and vented to the carbon filter;				X			
Oil	Storage Area							
•	The building will be roofed (with overhangs) to prevent the ingress of rain and generation of additional trade waste; and egress of odours and unacceptable air and noise emissions;	Х	Х	Х	Х	Х	Х	
•	The unloading and loading bays will be bunded (including 200mm edge bunding a 75mm high drive over bund at the entrance) and drain to inground sumps to collect any spillage during unloading activities;	Х	Х	Х				
•	Any liquids from the inground sumps will then be transferred to the used oil or oily water tanks for	Х	Х	Х				



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• Floor levels within the proposed building are greater than 0.5m above the Blacktown City Council Probable Maximum Flood (PMF) event;	Х	X	Х			
• Roofwater will be collected in a water tank for reuse in washdown and irrigation;	Х	Х	Х			
• Overflow from the water tank will be treated prior to discharge from the site;	Х	Х	Х			
• All storage tanks and the DAF will be within a 600mm high bunded tank farm (approximate capacity 301 m3);						
Vehicles						
• All trucks carry an emergency spill kit and the necessary equipment to prevent waste from entering the environment;					Х	х
• All vehicles purchased by J.J. Richards for the performance of waste management duties have built-in emission control measures to ensure exhaust emissions are kept to a minimum in compliance with Australian Design Rules and emission standards;						



	Environmental Element								
Mitigation Measures	Land	Stormwater	Groundwater	Air	Noise	Ecology	Traffic		
• Implementation of established systems and procedures, including driver inductions and ongoing training (refer Section 8 and Appendix 17);	X X	X	X	X	X	X	X		
• Trafficked areas are to be kept clean;	X	Х	Х	Х	Х	Х	Х		
• All on site equipment and vehicles will be properly maintained;	x	Х	X	X	Х	Х	Х		
• Spill kits to be kept on site, and where possible used for mopping up any spillages;	л Х	Х	Х			X	Х		
• Where possible, wash down will be limited to within bunded areas;	x	Х	Х						
• Only material in accordance with specific acceptance criteria will be permitted at the facility;	Λ	Х	X	X		X			
• On-site odorous waste storage will be minimised;				Х	Х	Х			
• Trucks will be kept clean;							X		
• All plant and equipment including trucks will be fitted with efficient exhaust mufflers;					Х		X		
• The receival of waste will only occur during normal operating hours;					Х		X		
• Noise generation is covered in the Vehicle Pre-trip Inspection procedure and the Vehicle Breakdown and Defects procedure;					X		X		
• Where possible oils and lubricants from site plant and machinery will							x		

Operational measures to minimise unacceptable emissions include:



ENVIRONMENTAL IMPACT STATEMENT FOR LIQUID WASTE FACILITY AND DEPOT AT Total Waste Management 14 RAYBEN STREET GLENDENNING

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	be collected for recycling by Southern Oil Refinery in Wagga Wagga;						
•	Treated liquids will be discharged to Sydney Water's sewer system;	Х	X	X			
•	The resultant solids or sludge from grease trap waste and aggregated liquid food waste will be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region;	Х	Х	Х			
•	Where possible, office waste such as paper, cardboard, glass, metals and plastics, as well as Ewaste, including computers, printers and ink cartridges will be sorted and sent to recycling services;						
•	Used oil will be aggregated and transported for recycling to the Southern Oil Refinery in Wagga Wagga;						
•	If an odorous load is received, work procedures will be in place to minimise any potential impact. These will include shutting any open doors; dousing the load with an odour neutraliser; identifying the waste source and investigating preventative actions;				X		

9.2 **Ecologically Sustainable Principles**

9.2.1 **Ecologically Sustainable Development**

Australia's National Strategy for Ecologically Sustainable Development (NSESD) (1992) defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life now and in the future, can be increased'.

The NSESD state that there are two main features which distinguish and ecologically sustainable approach to development. These features are:

• The need to consider in an integrated way the wider economic, social and environmental implications of our decisions and actions for Australia, the international community and the biosphere; and



• The need to take a long-term rather than short-term view when taking those decisions and actions;

A number of principles form the foundation of Ecologically Sustainable Development;

- Precautionary Principle where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- Intergenerational Equity fairness and equal access to opportunities both in our lifetimes, as well as for future generations;
- Protecting Biodiversity to protect biological diversity and maintain essential ecological processes and life-support systems;
- Improved Valuation improved valuation, pricing and incentive mechanisms should be promoted to ensure the full costs, including the cost to environmental and social systems, are included in the final valuation of the product or service;

The principles of Ecologically Sustainable Development have been considered throughout the preparation of the EIS. This section summarises what steps have been taken to achieve the principles of Ecologically Sustainable Development.

9.2.2 Achieving Ecologically Sustainable Development

The proposed Liquid Waste Facility at 14 Rayben Street, Glendenning has been designed to minimise impacts and where possible improve the natural, social and economic environment of the region. This includes ensuring the protection and management of air quality, soil and surface waters as well as the appropriate disposal and management of wastes, and the greenhouse gases. Impacts on social systems, such as noise, traffic and transport, visual and land use conflicts have been managed and improved through the proposed mitigation measures.

Economic impacts associated with operating the facility are expected to be sustained over a long period of time, reflecting the life of the asset being constructed. However, the annual value of these impacts mainly relates to incremental increases in employment, and are expected to be a fraction of the capital cost.

As such, many of these impacts are likely to be beneficial but not material either in terms of the overall economic impact of the project or relative to the local economy.

9.2.3 Precautionary Approach

A precautionary approach to the identification and management of environmental issues has been taken throughout the preparation of this EIS. In some instances where information was not fully attainable for reasons outside the control of Duggan & Hede Pty Ltd, a precautionary approach was taken to ensure all appropriate measures were employed to prevent any associated environmental degradation.

Benefits to Current and Future Generations 9.2.4

The benefits to future generations include the protection and improved environmental management, increased employment opportunities, improved capabilities to respond to increasing demands (and community expectations) for efficient and effective metal resource recovery and recycling facilities and subsequent economic and social benefits which will be vital for the sustainable expansion and growth of the area.

9.2.5 **Protection of Biodiversity**

The proposal is to take place on already disturbed and developed land within the existing industrial estate. No clearing of natural or planted landscape species are required for the purpose of the proposed development.

Notwithstanding, background literature reviews and database searches were conducted to obtain recent data on flora and fauna species, populations, communities and habitats known to occur within the site and locality (refer Appendix 13).

9.2.6 Valuation of Resources

The assessment of environmental, social and economic issues undertaken in this study has allowed for the improved valuation of the resources when considering the merits of the proposed development.

The environmental and social costs associated with the proposed development have been minimised through the proposed mitigation measures, while it is expected that the proposed development will result in positive economic outcome for the region.

9.3 Justification of the Development

This EIS has been prepared having regard to physical, economic and social considerations and the principles of Ecologically Sustainable Development.

The environmental assessment process has been used to drive the development of the site and ensure operations will be sustainable and create minimal disruption to the local community. There were no significant environmental impacts identified during the preparation of the EIS that cannot be mitigated by appropriate mitigation measures and management strategies.

Key attributes on the proposed development include:

- All receival, treatment and load out operations will be undertaken within • buildings;
- Unloading and loading areas will have external bunding and inground • sumps for adequate spill control;
- All storage tanks and treatment equipment will be within bunded tank farms;
- There are significant buffer distances (greater than 400m) from the • proposed development to residences;

- Clearing activities have previously been undertaken on the proposed site, • and as such, there is no vegetation on the proposed footprint of the proposed buildings and works;
- Its low impact on the physical environment (land, soil and water) as demonstrated in this report and in the operation of similar Waste Management Facilities;
- The proposed facility creates the opportunity to deal with additional liquid waste volumes in the region. To the extent that additional employment is generated as a result, that could be considered to be an economic benefit;
- A brownfield redevelopment of existing industrial land is likely to have • lower social and environmental impacts than a greenfield development where potential alternative uses of the site and surrounding sites may be less well established:
- The proposed expansion of activities on the site will provide for an increased labour force based on the site (including truck drivers), creating positive flow-on effects to the local economy. It will also enable J.J. Richards to better utilise its existing site;
- This upgraded facility will also better respond to increasing demands from Sydney Water and community expectations for efficient grease trap waste treatment:

Detailed environmental management plans have been prepared for the construction and operational phases of this development and such includes monitoring, record keeping, audit and training procedures and site induction programs for all employees and contractors. The proposed development will satisfy all legislative requirements, including state environmental planning policies, and local and regional plans and policies.

Having regard to the above and based on the assessment contained in this EIS, the proposal will have positive environmental effects and therefore approval of the application will be appropriate and sustainable.
10 References

10.1 SEAR - Legislation and Guidelines

- Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (EPA, 1999)
- Environmental Planning and Assessment Regulation 2000
- State Environmental Planning Policy No. 33 Hazardous and Offensive Development
- Hazardous Industry Planning Advisory Paper No. 6 Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011)
- State Environmental Planning Policy (Infrastructure) 2007
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- State Environmental Planning Policy No. 55 Remediation of Land
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- Environmental Planning and Assessment Act 1979
- National Parks and Wildlife Regulation 2009
- Threatened Species Conservation Act 1995 (TSC Act)
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- NSW Industrial Noise Policy
- NSW Environmental Criteria for Road Traffic Noise
- Protection of the Environment Operations Act 1997

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- Managing Urban Stormwater: Soils and Construction (DECC, 2008), Guidelines for Fresh and Marine Water Quality ANZECC 2000), Environmental Guidelines: Use of effluent by Irrigation (DEC, 2004)
- Contaminated Sites Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011); Contaminated Sites - Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report (EPA, 2003)
- Managing Land Contamination, Planning Guidelines SEPP 55 Remediation of Land
- NSW Department of Planning *Hazardous and Offensive Development Application Guidelines* (SEPP 33 Guidelines)

10.2 Geotechnical Assessment and Site Contamination Assessment

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- AS3798 2007 'Guidelines on Earthworks for Commercial and Residential Development'
- AS2870 (2011), Residential Slab and Footings Construction

10.3 Integrated Water Cycle Management Strategy

- Australian Government Bureau of Meteorology, Climate Data online, <u>http://www.bom.gov.au/climate/data/index.shtml;</u>
- Blacktown City Council, Engineering Guide for Development 2005, Nov 2012;
- Blacktown City Council, DCP 2015 Part A Introduction and General Guidelines;
- Blacktown City Council, DCP 2015 Part E Development in the Industrial Areas;
- Blacktown City Council, DCP 2015 Part J Water Sensitive Urban Design and Integrated Water Cycle Management;
- Blacktown City Council, Works Specification Civil 2005, June 2009;
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- Blacktown City Council, Waterway Health Report Card 2013-2014;
- Blacktown City Council, Waterway Health Report Card 2014-2015;
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- Upper Parramatta River Catchment Trust, On-site Stormwater Detention Handbook, Fourth Edition, Dec 2005;
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Air and Noise Quality Assessment 10.4

- NSW EPA Requirements (Notice No. 1533791) •
- NSW Industrial Noise Policy (2001) •
- NSW Approved Methods for the Modelling and Assessment of Air . Pollutants in New South Wales (2005)
- Assessment and Management of Odour from Stationary Sources in NSW ٠ (November 2006); and Generic Guidance and Optimum Model Settings for the Calpuff Modelling System for Inclusion into the 'Approved Methods for the Modelling and Assessments of Air Pollutants in NSW, Australia'

10.5 **Ecological Assessments**

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- Threatened Species Conservation Act 1995
- Commonwealth Environment Protection and Biodiversity Conservation Act ٠ 1999 (EPBC Act)



EIS FIGURES



EIS DRAWINGS



EIS APPENDICES 1-17



APPENDIX 1

Government Searches



APPENDIX 2

Previous Approvals (14 Rayben Street)



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APPENDIX 3

Existing Environmental Licence; Trade Wastewater Consent (Seven Hills); Treated **Grease Trap Waste Exemption and Order** 2014; Liquid Food Waste Exemption and **Order 2014**



APPENDIX 4

Pre-lodgement Minutes and Correspondence



APPENDIX 5

Secretary's Environmental Assessment **Requirements (SEARs – SSD 6767)**



APPENDIX 6

SEARs SSD 6767 - Compliance Matrix



APPENDIX 7

Stakeholder Consultation



APPENDIX 8

Grease Trap Waste Technical Information, Sampling Plan and SDSs



APPENDIX 9

Quantity Surveyor Report



APPENDIX 10

Geotechnical Investigation



APPENDIX 11

Integrated Water Cycle Management Strategy



APPENDIX 12

Air and Noise Quality Assessment



APPENDIX 13

Ecological Assessment



APPENDIX 14

Traffic Impact Assessment



APPENDIX 15

Hazard Identification and Risk Analysis



APPENDIX 16

Construction Environmental Management Plan



APPENDIX 17

Extracts from Site Based Management Plan, including Corporate Policies