

APPENDIX 7

Stakeholder Consultation

Ray Duggan

From: ZMIJEWSKI, JOHN <John.Zmijewski@sydneywater.com.au>
Sent: Thursday, 30 April 2015 7:32 AM
To: Ray Duggan
Subject: RE: Sydney Water - Proposed Rayben Street Grease Trap Plant

Hi Ray

I received confirmation yesterday 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. I forwarded this information to Mick Nicholson at JJ Richards.



Best regards,
John Zmijewski | Business Customer Representative

Business Customer Services | Sydney Water
Gate 0, 33-73 Links Road St Marys NSW 2760
M 0419 273159 **T** 8805 5532 |
E john.zmijewski@sydneywater.com.au
sydneywater.com.au

From: Ray Duggan [<mailto:R.Duggan@dhenv.com.au>]
Sent: Wednesday, 29 April 2015 5:06 PM
To: ZMIJEWSKI, JOHN
Cc: Mick Nicholson
Subject: RE: Sydney Water - Proposed Rayben Street Grease Trap Plant

John

Any update on this?

Ray Duggan |
Duggan & Hede Pty Ltd | Professional Engineers, Planners, Environmental Consultants
1 Lewis Street, Clayfield, Queensland 4011, Australia (PO Box 496, Clayfield QLD 4011)
T: [+61] (7) 3357 3666 | **F:** [+61] (7) 3857 6233 | **M:** 0412 783 442 | **E:** r.duggan@dhenv.com.au |

From: Mick Nicholson [<mailto:Mick.Nicholson@jjrichards.com.au>]
Sent: Tuesday, 14 April 2015 11:17 AM
To: ZMIJEWSKI, JOHN (John.Zmijewski@sydneywater.com.au)
Cc: Ray Duggan
Subject: FW: Sydney Water - Proposed Rayben Street Grease Trap Plant

Hi John.

As discussed Duggan and Hede are acting on our behalf with the re-location of our Grease Trap Treatment plant located in unit 23+24/20 Tucks Rd

Seven Hills to 14 Rayben St Glendenning.

There are a number of items listed in the below email that I believe you asked for and or Ray has requested that you may be able to help us with.

If you have any further enquiries for the plant relocation please feel free to contact either John or myself at any time.

Regards,

Mick Nicholson
General Manager NSW
Email:mick.nicholson@jjrichards.com.au

From: Ray Duggan [<mailto:R.Duggan@dhenv.com.au>]
Sent: Monday, 13 April 2015 4:46 PM
To: Mick Nicholson
Subject: Sydney Water - Proposed Rayben Street Grease Trap Plant

Mick

I spoke to John Mijewski at Sydney Water today in relation to the application to relocate the Seven Hills operation to 14 Rayben Street, Glendenning. He requested you forward this email to him at john.zmijewski@sydneywater.com.au.

Key information for the development will be:

Discharge Volumes to Sewer

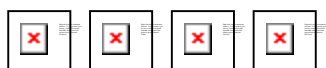
	<u>Initial</u>	<u>Future</u>
• Annual discharge (litres)	26,000,000	33,800,000
• Average daily discharge volumes (litres)	100,000	130,000
• Max daily discharge volumes(litres)	150,000	180,000
• Max instantaneous (L/sec)	2	5

Also attached is the project overview provided to Blacktown City Council, Dept of Planning, EPA etc and response from Sydney Water to the Dept of Planning.

Please advise of Sydney Water contact person etc in relation to Sydney Water comments, requirements and future applications.

Ray Duggan |
Duggan & Hede Pty Ltd | Professional Engineers, Planners, Environmental Consultants
1 Lewis Street, Clayfield, Queensland 4011, Australia (PO Box 496, Clayfield QLD 4011)
T: [+61] (7) 3357 3666 | **F:** [+61] (7) 3857 6233 | **M:** 0412 783 442 | **E:** r.duggan@dhenv.com.au |

tap™ is the original ecowater. Get sustainable. Drink tap. Visit tapsydney.com.au



NOTICE: This email is confidential. If you are not the nominated recipient, please immediately delete this email, destroy all copies and inform the sender. Sydney Water Corporation (Sydney Water) prohibits the unauthorised copying or distribution of this email. This email does not

Revised Project Overview for

Waste Management Facility and Depot at 14 Rayben Street, Glendenning

December 2015

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Proponent.....	1
1.2	Background	2
1.3	Project Overview.....	2
1.4	Used Oil Re-refining	4
1.4.1	Wagga and Yarwin Re-refining Facilities	4
1.4.2	Re-refining Process.....	5
1.4.3	Environmental Benefits of the Re-refining Process.....	6
1.5	Pulpmaster.....	7
1.5.1	Overview.....	7
1.5.2	Benefits	7
2	SITE DETAILS	9
2.1	Location	9
2.2	Tenure.....	9
2.3	Site History	9
2.4	Adjoining Land Uses	9
2.5	Existing Utilities and Services.....	10
3	DESCRIPTION OF PROJECT	11
3.1	Existing Infrastructure.....	11
3.1.1	Site Layout and Civil Works.....	11
3.1.2	Existing Office	11
3.1.3	Existing Industrial Building.....	11
3.2	Proposed Infrastructure.....	12
3.2.1	Site Layout and Civil Works.....	12
3.2.2	Existing Office	12
3.2.3	Organics Building	12
3.2.4	Oil Storage Roof Structure.....	12
3.2.5	Plant and Equipment	13
3.3	Existing Operations	15
3.3.1	Overview.....	15
3.4	Proposed Operations	15

3.4.1	Overview	15
3.4.2	Waste and Traffic Volumes	16
3.4.3	Grease Trap Waste	17
3.4.4	Liquid Food Waste	20
3.4.5	Used Oil	22
3.4.6	Industrial Oily Water	25
3.5	Mitigation Measures	26
3.6	Fire Services	29
3.7	Construction Activities	29

FIGURES

3.1	Site Location
3.2	Aerial Photograph
3.3	Survey Plan
3.4	Photos – Rayben Street Streetscape
3.5	Photos – Rayben Street Streetscape
4.1	Existing Site Layout (BA01)
4.2	Photos of Site – from Rayben Street
4.3	Photos of Existing Industrial Building
4.4	Existing Buildings - Plan and Sections (BA 02)
4.5	Existing Buildings - Elevations (BA 03)
4.10	Photos – Grease Trap Waste Treatment Seven Hills
4.11	Photos – Grease Trap Waste Treatment Seven Hills
4.12	Typical DAF Details
4.13	Typical 30 kL Vacuum Tank Details
4.20	Grease Trap Waste Treatment Flowchart
4.33	Photos - Typical Soil Injection Equipment

DRAWINGS

ECP568.D.01A	Site Survey
RI456-D0-01	Existing Site Layout
RI456-D0-02	Proposed Site Layout
RI456-D0-11	Organics Building - Plan
RI456-D0-12	Organics Building – Elevations
RI456-D0-13	Organics Building – Roof Plan
RI456-D0-14	Organics Tank Farm – Initial
RI456-D0-15	Organics Tank Farm - Final
RI456-D0-21	Oil Storage Roof Structure - Plan
RI456-D0-22	Oil Storage Roof Structure – Elevations
RI456-D0-23	Oil Storage Roof Structure – Roof Plan
RI456-D0-24	Oil Storage Tank Farm - Initial
RI456-D0-25	Oil Storage Tank Farm – Final

1 Introduction

1.1 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);

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.

1.2 Background

In order to meet future commercial and environmental demand, J.J. Richards & Sons Pty Ltd proposes to establish a Waste Management Facility (as described in Section 1.3) as an adjunct to its existing depot 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 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.

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 Yarwin in central Queensland (refer Section 1.5).

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.

1.3 Project Overview

The proposed Waste Management 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 that waste to land, provided the consumer complies with the conditions of this exemption;
- store used oil (J100 type waste* 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 (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 liquid grease trap and 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 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 RI456-00-00). 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.

1.4 Used Oil Re-refining

1.4.1 Wagga and Yarwin Re-refining Facilities

Southern Oil Refinery (SOR) and Northern Oil Refinery (NOR) operate used oil re-refineries at Wagga Wagga, NSW (refer Figure 4.40) and Yarwin, 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.*

1.4.2 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.

1.4.3 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.

1.5 Pulpmaster

1.5.1 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 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.

1.5.2 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 CO₂ 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 Site Details

2.1 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.

2.2 Tenure

The site has been owned by J.J. Richards & Sons Pty Ltd since 2006.

2.3 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 January 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.

2.4 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) occupy 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.

2.5 Existing Utilities and Services

The 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 also in Rayben Street;

A trade waste approval from Sydney Water will be required as part of this application.

The proposed development will require a new 100mm fire service for the existing street water main.

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

3 Description of Project

3.1 Existing Infrastructure

The existing industrial building on site has been the subject of several approvals 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 3.1.1 to 3.1.3 below.

3.1.1 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;

3.1.2 Existing Office

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

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

3.1.3 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;

3.2 Proposed Infrastructure

Proposed infrastructure is described in Sections 3.2.1 and 3.2.4 below:

3.2.1 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.

3.2.2 Existing Office

There will be no changes to the existing office.

3.2.3 Organics Building

The proposed Organics Building is shown in Drawings RI456-D0-11 to 15 and described below:

- 21m 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 (216m³ capacity);
- Electrically operated roller shutters;
- Amenities room and office;

3.2.4 Oil Storage Roof Structure

The proposed Oil Roof Structure is shown in Drawings RI456-D0-21 to 25 and described below:

- 21m x 26m 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 and 4m x 10m bunded pump area;

3.2.5 Plant and Equipment

Grease Trap Waste Treatment

Typical plant and equipment proposed for the facility is presented as Drawing 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).

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 Drawing RI456-D0-14 and 15 and in Figures 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).

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 Drawing RI456-D0-24 and 25 and in Figure 4.15 and described below:

- Solids strainer;
- Vacuum pump;
- 3 x 40 kL Tanks (Receival);
- 1 x 60 kL Tanks (Oily Water);
- 4 x 120 kL Tanks (Storage);
- Associated pipework and valves;

This includes provision for an additional tank for Used Oil Receival in the future (refer RI456-D0-25).

Industrial Oily Water Treatment – Stage 1

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;
- Dissolved Air Flotation (DAF) unit*;
- Associated pipework and valves;

3.3 Existing Operations

3.3.1 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.

3.4 Proposed Operations

3.4.1 Overview

Truck and Car Parking

Parking will be available on the site for cars and trucks on concrete pavement. 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-D0-02).

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.

3.4.2 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 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	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
Industrial Oily Water Sludge Tankers	0	25
Total Trucks	2,600	9,968
Car Parking – Truck Drivers	2,600	3,640
Car Parking – Administration	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 – Administration	8.0	12.0
Total Cars	18.0	26.0
Total Vehicles	28.0	64.3

3.4.3 Grease Trap Waste

Acceptance Criteria

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;

This will be the same as for J.J. Richards existing operations at Seven Hills.

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. Initially, collection vehicles will drive into the Unloading Bay (which is bunded) within the Organics Building (refer Drawings RI456-D0-14);

- 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 3.2 for proposed infrastructure) are shown in the flowchart in Figure 4.20, Drawing RI456-D0-14 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 within the 400mm high tank farm (with a capacity approximately 216m³) 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.

Disposal – Liquid

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.

Disposal – Sludges

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.

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).

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

3.4.4 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 25,000 L. Initially, collection vehicles will drive into the bunded Unloading Bay within the Organics Building (refer Drawings RI456-D0-14);

- 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 passes 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 3.2 for proposed infrastructure) are shown in Drawing RI456-D0-14 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 passes 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.

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).

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-D0-14.

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 within the 400mm high tank farm (with a capacity approximately 216m³) 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.

3.4.5 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. Used oil delivery and unloading operations (refer Section 3.2.5 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;
- Upon arrival at the site, collection vehicles will drive into the bunded Loading and Unloading Bay within the Oil Storage Roof Structure (refer Drawings RI456-D0-21 and 22);
- A representative sample of used oil will be initially taken from the collection vehicle;
- If used oil meets acceptance criteria (by a flash test), commence the unloading process;
- If used oil does not meet acceptance criteria, notify the Supervisor for directions;

- These directions are likely to be unload the load into in the 20 kL flammables tank to the north of the Oil Storage Roof Structure;
- Vehicles and equipment will undergo a series of pre-start checks, including 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 Loading and Unloading 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;
- 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 Drawing RI456-D0-21):

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 s/steel tanks to AS1692 and AS1940
Used Oil	C1	1071	4	40,000 L	160,000 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 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 Loading and Unloading Bay (which is bunded) within the Oil Storage Roof Structure (refer Drawings RI456-D0-21 and 22);
- 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;

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.

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 Drawings RI456-D0-24.

Unloading and loading activities of liquid waste will be undertaken in the Loading and Unloading 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 within the 600mm high tank farm 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.

3.4.6 Industrial Oily Water

Acceptance Criteria

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. Industrial oily water delivery and unloading operations (refer Section 3.2.4 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 Loading and Unloading Bay within the Oil Storage Roof Structure (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 oil 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 Loading and Unloading Bay;

Aggregation and Transfer Method

Industrial oily water will be stored as follows (refer Drawing RI456-D0-21):

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

Water						AS1940
-------	--	--	--	--	--	--------

Industrial oil aggregation and transfer operations (refer Section 3.2.5 for infrastructure requirements) are described below:

- Industrial oily water will be allowed to settle and oil will be removed from the Industrial Oily Water Tank to an Oil Storage Tank;
- Industrial oily water will then be pumped at 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 oils;
- These oils will be transferred to an Oil Storage Tank; whilst the treated liquid will flow to a water drop tank from which it can be tested and discharged to sewer;
- Stored used oil will then be reloaded into larger vehicles for transport to appropriately licensed facilities as per Section 4.4.7 above;

Disposal Destination

Where possible, used oil will be transported to the Southern Oil Re-refinery at Wagga Wagga as per Section 3.4.7 above.

Spill Containment

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

Unloading and loading activities of liquid waste will be undertaken in the Loading and Unloading 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 within the 600mm high tank farm (with a capacity approximately 385m³) 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.

3.5 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;

- passenger vehicle spaces in accordance with AS2890.1 for use by administration / management / operation staff and visitors will be provided;
- heavy 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 (ie they can turn around on the site and reverse into loading and unloading bays;

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 existing 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 in a bioretention system prior to discharge from the site;
- All storage tanks and the DAF will be within a 400mm high bunded tank farm (approximate capacity 216 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 Roof Structure

- 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;
- 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 existing 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 in a bioretention system prior to discharge from the site;
- All storage tanks and the DAF will be within a 600mm high bunded tank farm;

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 3.4.5);
- 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 receipt 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 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;
- 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.

3.6 Fire Services

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

- Fire Extinguishers;
- Fire Hose Reels;
- Fire Hydrants (as per Drawing RI456-00-02);

3.7 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 1,900m² of existing concrete pavement and construction of:

- Construction of Organics Building;
- Construction of Oil Storage Roof Structure;
- Stormwater quality infrastructure;
- Fire services;
- Concrete pavement;
- Installation of 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 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 four month period. Normal working hours during construction will be 6.00am to 6.00pm Monday to Saturday.



SCALE 20 0 20 40 60 80 100m 1:4000(A3)

REVISIONS					PLOT FILE		DATE	TECHNICALLY APPROVED:
					DESIGN	R.D.	05/15	
					DRAWN	B.P.	05/15	
					DES. CHK.			
	No.	BY	DATE	DESCRIPTION	DWG. CHK.			



DUGGAN & HEDE

PTY LTD

ACN 077 618 663

Professional Engineers, Planners and Environmental Consultants

PO Box 496 Clayfield Qld 4011

Telephone (07) 3357 3666

Facsimile (07) 3857 6233

e_mail dh@dhenv.com.au

JJ RICHARDS & SONS PTY LTD		SCALE	AS SHOWN
WMF BUILDING & DEPOT AT 14 RAYBEN ST, GLENDENNING SEPERATION DISTANCE		SHEET	
		DRG No.	REVISION RI456-00-XX

Ray Duggan

Subject: FW: Liquid Facility.
Attachments: RI456 Fact Sheet 160121.pdf

From: Mick Nicholson
Sent: Thursday, 11 February 2016 1:52 PM
To: isabelle.white@blacktown.nsw.gov.au
Subject: FW: Liquid Facility.

Good afternoon Isabelle.

Further to my earlier correspondence dated 5th February 2016, I have attached a copy of our fact sheet that will be distributed to local residents next week for your perusal.

Regards,

Mick Nicholson
General Manager NSW
Email:mick.nicholson@jjrichards.com.au

Ray Duggan

Subject: FW: Liquid Facility.

From: Mick Nicholson
Sent: Friday, 5 February 2016 1:42 PM
To: 'isabelle.white@blacktown.nsw.gov.au'
Subject: FW: Liquid Facility.

Good afternoon Isabelle.

We at J.J.Richards and Sons P/L will soon be lodging a D.A to council for the development and construction of a modern Liquid Treatment and Storage facility.

The facility will be located on our premises located at 14 Rayben St Glendenning NSW 2761.

Due to the volume of material being processed through the facility, the project has been deemed as state significance and as such we obviously have few steps to take along the way before approval is granted.

As a you are obviously a local councillor, I would like to arrange a meeting with you at a convenient time to discuss and provide you with some information regarding the project.

I look forward to your response and catching up with you soon.

Regards,

Mick Nicholson
General Manager NSW
Email:mick.nicholson@jjrichards.com.au

Ray Duggan

Subject: FW: Liquid Facility.
Attachments: RI456 Fact Sheet 160121.pdf

From: Mick Nicholson
Sent: Thursday, 11 February 2016 1:50 PM
To: edmond.atalla@blacktown.nsw.gov.au
Subject: FW: Liquid Facility.

Good afternoon Edmond.

Further to my earlier correspondence dated 5th February 2016, I have attached a copy of our fact sheet that will be distributed to local residents next week for your perusal.

Regards,

Mick Nicholson
General Manager NSW
Email:mick.nicholson@jjrichards.com.au

From: Mick Nicholson
Sent: Friday, 5 February 2016 1:40 PM
To: 'edmond.atalla@blacktown.nsw.gov.au'
Subject: Liquid Facility.

Good afternoon Edmond.

We at J.J.Richards and Sons P/L will soon be lodging a D.A to council for the development and construction of a modern Liquid Treatment and Storage facility.
The facility will be located on our premises located at 14 Rayben St Glendenning NSW 2761.

Due to the volume of material being processed through the facility, the project has been deemed as state significance and as such we obviously have few steps to take along the way before approval is granted.
As a you are obviously a local councillor, I would like to arrange a meeting with you at a convenient time to discuss and provide you with some information regarding the project.

I look forward to your response and catching up with you soon.

Regards,

Mick Nicholson
General Manager NSW
Email:mick.nicholson@jjrichards.com.au

FACT SHEET

January 31, 2016

Introduction

In order to meet future commercial and environmental demand, J.J. Richards & Sons Pty Ltd (J.J. Richards) proposes to establish a Liquid Waste Facility (as described below) as an adjunct to its existing depot at 14 Rayben Street Glendenning. This site was developed in the 1990s and has since been used as a transport depot, including a workshop and ancillary offices. J.J. Richards also operates a transport depot, including workshop and ancillary offices at 7 Rayben Street (opposite this site).

J.J. Richards currently operates a similar (licensed) Grease Trap Treatment Facility at Seven Hills. Activities currently undertaken in this facility will be transferred to the proposed development site.

Need

The primary aim of the project is to provide for a long term sustainable liquid waste facility to treat grease trap waste and store and aggregate liquid food waste, used oil and industrial oily water from the Sydney metropolitan area.

Project Description

The proposed Liquid Waste Facility (LWF) 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 re-refining 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.

The site is currently fenced and has established perimeter landscaping which provides effective visual screening to site infrastructure and activities. 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.

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 m2 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.

Approval Process

This development has been classified as State significant development pursuant to the State Environmental Planning Policy (State and Regional Development) 2011. This is due to its forecast throughput being in excess of 10,000 tonnes per annum (193 tonnes per week). This classification necessitates the Secretary of the Department of Planning and Environmental to issue environmental requirements (SEARs) which include requirements from other state agencies and Blacktown City Council.

An Environmental Impact Statement (EIS) is being prepared to respond to these SEARs. Detailed studies which are being undertaken to support this EIS include a Water Cycle Management Strategy, a Geotechnical Investigation, an Air and Noise Quality Assessment, a Construction Environmental Management Plan and a Risk Assessment.

Frequently Asked Questions

Will there be additional parking on Rayben Street as a result of the facility?

The new facility will not increase staffing levels significantly. In any case 29 car parks will be available on the site.

How many trucks will there be entering the site daily and what routes will they take?

Up to 38 trucks will enter and leave the site daily. The majority of these will be rigid bodytrucks and will travel to and from the Westlink (M7) via Owen Street, Power Street, and Quakers Hill Parkway / Knox Road.

Is liquid food and grease trap waste dangerous?

Liquid food and grease trap waste is not toxic or hazardous waste, nor is it combustible, flammable or explosive.

The handling and storage of used oils and industrial oily water will comply with the relevant Australian Standards, Codes and Guidelines.

Will there be any odours from the grease trap treatment process?

Equipment for unloading, treatment and loading of liquid food and grease trap waste will be located within the Organics Building. Emissions will also pass through a carbon filter to remove odours prior to discharge from the facility. An air quality assessment is being undertaken to make recommendations with respect to any attenuation measures.

Are the proposed operations noisy?

The proposed operations do not involve significant noise generating sources. In any case all unloading, treatment and discharge activities for liquid food and grease trap waste will be undertaken within the Organics Building. A noise quality assessment is being undertaken to make recommendations with respect to any attenuation measures.

Will the facility impact on water quality in Eastern Creek?

All unloading, treatment and discharge activities will be undertaken within bunded areas. All processed liquids from the treatment of grease trap waste will be discharged to sewer. The resultant solids or sludge will then be transported for beneficial reuse in the cultivation of feed crops on farms in the Sydney region. Aggregated oils will be transported to other facilities for re-refining and re-use. Roof water will be collected in a tank for reuse and any overflows will be treated prior to discharge in the existing stormwater system. As such there will be no detrimental effect on Eastern Creek from the proposed facility.

Has the grease trap treatment process been used elsewhere?

The proposed treatment process has been successfully operated for a period of some 16 years at the J.J. Richards' Sevens Hills Grease Trap Plant.

For Further Information

Please contact Mick Nicholson on 02 98324022 if you have any queries.