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report

CHEMSAL PTY LTD

BACKGROUND DOCUMENT FOR A MAJOR PROJECT

PROPOSED RESOURCE RECOVERY FACILITY

40-48 Christie Street, St Marys, New South Wales

May 2006

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23 May 2006

Mr Sam Haddad
Director General
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Jacqueline Ingham, Senior Environmental Planning Officer, Office of Sustainable Development Assessments and Approvals

Dear Mr Haddad,

Re: Background Document for a Major Project: Resource Recovery Facility, 40-48 Christie Street, St Marys, New South Wales

We are pleased to submit this background document for an Application for Development Consent under Part 3A of the *Environmental Planning and Assessment Act 1979*, for a proposed resource recovery facility at 40-48 Christie Street, St Marys, New South Wales. The proponent for the development is Chemsal Pty Ltd (Chemsal), a leading Australian company in the area of chemical waste management and resource recovery.

Chemsal propose to establish the facility on an existing industrial site in St Marys. The site covers an area of approximately 1 hectare and has an existing 4 000 m^2 warehouse building on it. The land external to the building footprint is sealed with hard stand areas. The property has previously been used as a timber yard.

Chemsal offer a range of chemical services relating to resource recovery. These include hazardous waste collection, storage and disposal, recycling and chemical treatment through its present facilities in Wetherill Park, New South Wales and at Laverton North, Victoria. The proposed resource recovery facility will source dangerous and hazardous goods from a range of industries, as well as from households and schools. With a focus on waste minimisation and resource recovery, the facility will contribute to the effective and safe management, and treatment, of chemicals in New South Wales.

The proposed facility will have a throughput in excess of 5 000 tonnes annually of waste chemicals including hazardous waste and waste classified under the *Australian Dangerous Goods Code*. The facility is captured under Schedule 1, Group 9, Section 27 (5) of the State Environmental Planning Policy (SEPP) (Major Projects) 2005 as a Major Project. In view of this, Part 3A of the *Environmental Planning and Assessment Act 1979* applies. Advice from the Director-General dated 24 March 2006 (received on 10 April 2006) confirmed the Major Project status of the proposal.

An Environment Protection Licence under the *Protection of the Environment Operations Act 1997* is also required for the development.

This background document has been prepared by Peter J Ramsay and Associates on behalf of Chemsal. The development is designed to comply with the requirements of the *Environmental Planning and Assessment Act 1979, Protection of the Environment Operations Act 1997* and applicable state environmental planning policies, regional environmental plans and local environmental plans. Peter J Ramsay and Associates has evaluated the potential environmental risks and impacts of the proposed development. The proposed facility is designed to meet best practice and adverse environmental impacts are not expected.

Should you wish to discuss any matters concerning this document, please contact Ms Alison McRae or the undersigned on 02 8338 1655.

Yours sincerely,

Peter J Ramsay & Associates

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

USE OF REPORT

The preparation of this report has been undertaken for the purpose of providing a background document for an environmental assessment of a resource recovery facility at 40-48 Christie Street, St Marys, New South Wales, to accompany a Development Application. It is not intended that this report should be used for any other purpose.

DISCLAIMER

This report is provided on the condition that Peter J Ramsay & Associates Pty Ltd disclaims all liability to any person other than Chemsal Pty Ltd in respect of anything done or omitted to be done and of the consequence of anything done or omitted to be done by any such person in reliance, whether in whole or in part, upon the whole or any part of the contents of this report.

1. INTRODUCTION

Chemsal Pty Ltd (Chemsal) is proposing to develop a resource recovery facility at 40-48 Christie Street, St Marys, New South Wales (NSW). The proposed facility will be located within an industrial area in St Marys and will have a throughput in excess of 5 000 tonnes annually of waste chemicals including hazardous waste and waste classified under the *Australian Dangerous Goods Code* (ADGC).

The development will comprise storage facilities for waste chemicals as well as some waste chemical treatment facilities. Wastes will be stored and treated on-site or transported off-site to other waste facilities. Resource recovery will be achieved using a range of processes on-site. These will include a Hazpak system that compresses and removes residual paint from used cans, a trade waste plant, fluorescent lamp processing, product decanting and plastic and metal shredding.

The proposed development has been considered by the Director General of the New South Wales Department of Planning (DoP) on behalf of the Minister for Planning to be a Major Project as a result of being captured under Schedule 1, Group 9, Section 27(5) of the *State Environment Planning Policy (SEPP) (Major Projects) 2005*. Consequently Part 3A of the *Environmental Planning and Assessment Act 1997* (EPA Act) applies to the development. Further, an Environmental Protection Licence under *Protection of the Environment Operations Act 1997* (POEO Act) is also required for the development.

1.1 Project Proponent

1.1.1 Chemsal Pty Ltd - The Company

Chemsal is a leading Australian company in the area of resource recovery and waste management. They offer a range of chemical waste related services including hazardous waste collection and disposal, recycling and chemical treatment.

Chemsal was established in 1981 and have existing facilities which are located at Wetherill Park, NSW and at Laverton North, Victoria. Chemsal receive, sort, depackage and treat spent or surplus products from a range of varied industries, as well as from households, schools, laboratories and hospitals. Chemicals are collected, segregated and stored, and options for re-use are explored. Mechanical and chemical treatment methods are utilised to optimise resource recovery. Only when no suitable treatment options are available is waste disposed of.

1.1.2 Chemsal Pty Ltd - Environmental Responsibility

Chemsal considers the welfare of its employees and its responsibility to the communities in which it operates to be of paramount importance. Chemsal understands that success in this area of responsibility manifests itself in improved efficiencies, better working conditions and strengthening relationships with the wider community and customers.

Chemsal's existing facilities in Sydney and Melbourne are quality accredited under AS/NZS ISO 9001 and maintain an accredited Environmental Management System under AS/NZS ISO 14001. The facilities also have accredited Occupational Health and Safety Management Systems under AS/NZS 4801. Chemsal will gain these accreditations for the proposed St Marys site. A site specific Environmental Management Plan will also be developed by Chemsal for the site.

1.2 Project Objectives and Scope

The objectives of the project are to provide enhanced resource recovery and waste management service to Sydney, pursue cost effective and environmentally sound technologies, and to comply with, and endeavour to exceed all, statutory requirements.

The proposed resource recovery facility in St Marys will provide Chemsal with significantly greater capacity in NSW to continue to effectively and soundly manage chemical waste in Australia. The resource recovery facility will have a focus on waste recovery and reuse where possible and effective waste treatment and management. The proposed facility will eventually replace that at Wetherill Park, NSW, which will not be used after 1 November 2006.

The proposed development represents a $6 million investment for Chemsal, including $1 million for works to develop the facility at the site. The facility will operate 12 hours per day 7 days per week and is expected to employ 30 people after two years.

2. SITE DESCRIPTION

The site is located within the Penrith City Council local government area, in St Marys, New South Wales. A locality map is shown in Figure 1.

2.1 Location and Surrounding Land Use

The proposed resource recovery facility is to be located at 40-48 Christie Street, St Marys, New South Wales, on an existing industrial property. The area of the site is approximately 1 hectare and has an existing 4 000 m^2 warehouse building on it, as well as office areas. The site is located within an industrial estate in St Marys, and hence the land surrounding the site is used for industrial purposes.

The closest residential property is approximately 600 m to the east of the site. South Wianamatta Creek is the closest natural water body and is located approximately 1.5 km to the south-west of the site.

2.2 Zoning

The site is currently zoned Industrial 4(a) within the Penrith City Council planning scheme.

2.3 Site History and Previous Environmental Assessments

A number of environmental assessments were undertaken on the property between 1997 and 2000. These assessments (three in total) were performed by Douglas Partners Pty Ltd (DP) (DP 1997a, 1997b and 2000) and included site history reviews and soil sampling. The assessments found that there were no issues associated with contamination at the property.

The reports on the assessments do however indicate that the site was originally used for agricultural purposes before forming part of a larger parcel of land used by the Australian Defence Industry (ADI). The ADI compound was formed in the 1940's to assist in the preparations for the Second World War. Following subdivision of the larger parcel of land by the ADI, the site was purchased in the late 1960s by APEX Laboratories. APEX laboratories utilised the site for the manufacture of veterinary prescription drugs (DP 1997a). The site has subsequently been used as a timber yard by two timber companies since 1997 until its purchase by Chemsal in 2006.

Aerial Photographs of the site taken in 1947, 1961, 1970, 1982, 1991 and 2002 held by Peter J Ramsay & Associates were examined to identify previous land uses. Our review of air photos confirmed that the site was part of the former ADI site, although it did not appear to be located near the stores of ammunition on this property. In addition, our review also indicated that the existing warehouse building was constructed between 1991 and 2002. We understand from Chemsal that the warehouse building at the site is approximately four years old.

3. PROPOSED DEVELOPMENT

Chemsal propose to establish their resource recovery facility at an existing industrial site in St Marys. This site has a large warehouse which is approximately four years old as well as hardstand areas, making it very suitable for the proposed Chemsal operations.

The proposed resource recovery operations will involve the collection of solid and liquid waste chemicals from a variety of locations across NSW. The wastes will be transported to the St Marys facility, sorted, and stored in designated areas in the warehouse. The wastes will then be treated on-site or transported off-site to other waste facilities for recovery or disposal. Resource recovery will be achieved using a range of processes on-site. These operations will include a Hazpak system that compresses and removes residual paint from used cans, a trade waste plant, fluorescent lamp processing, plastic and metal shredding and decanting operations.

The proposed facility will have an annual throughput in excess of 5 000 tonnes of waste chemicals including hazardous waste and waste classified under the ADGC. The operation of the proposed facility is discussed further in the following sections. In particular, details of the sorting and storage operations and the proposed resource recovery operations are provided in Sections 3.8 and 3.9.

3.1 Site Layout

The site is approximately one hectare and comprises a warehouse building of approximately 4 000 m^2. This warehouse building will house the majority of the storage and treatment operations, with the exception of a flammable goods area to be constructed in the south-west of the site. The flammable goods area will comprise three components: a processing area, a storage area and a tank farm. An office area, car park and large hardstand area are also present at the site. A detailed site layout plan is presented in Figure 2. In this plan the red lines denote fire rated concrete panels, the green lines denote containment bunds and the green hatched areas represent roll over bunding, all of which are to be constructed.

As shown in the site layout plan, the internal layout of the warehouse will be modified to include the various storage and treatment areas required for the operations. This will include the required storage areas for packaged goods as well as above ground storage tanks, and the designation of areas for the resource recovery operations. In addition, the main building will have doors installed in both the eastern and western walls, and all bunding required for storage and loading and unloading areas will also be constructed.

3.2 Construction Works

As indicated in Section 3.1, some construction works will be necessary at the site for the establishment of the flammable goods area comprising a processing area, storage area and tank farm. This flammable goods area will be located in the south-west corner of the site and constructed of fire rated concrete panels. The processing area will be located beneath the existing warehouse awning and the flammable goods store will be roofed. Roll over bunding will be constructed to allow vehicle access into the store and processing areas. The construction of appropriate bunding will also be necessary at other storage and treatment areas at the site, as shown in Figure 2.

Chemsal expect that construction works would commence at the site shortly after being granted consent by the DoP, and works would be completed within approximately one to three months.

3.3 Operating Hours and Workforce

The proposed development will operate from 6 am to 6 pm seven days a week. The initial number of employees at the facility will be 14, however it is expected that after two years the site will employ 30 people.

3.4 Traffic and Transportation

Chemsal will initially operate a fleet of five vehicles at the St Marys site. It is expected that after two years the Chemsal fleet will consist of eight vehicles. The Chemsal fleet will include the following types of vehicles:

- Tautliner with dog trailer (capacity of 22 pallets);
- Rigid tautliners (capacity of 12 pallets);
- Open trays (capacity of 12 pallets);
- Vacuum tankers (capacity of 13,000 litres);
- Two two-tonne panteck trucks with skips (capacity of 23 m^3) and demountable tanks liners (capacity of 12 pallets); and
- Two utes.

The proposed development will have 30 truck movements per week of incoming chemicals and 12 truck movements per week of outgoing chemicals, making a total of 42 trucks movements each week.

In addition to the truck movements, other traffic generated at the site will include vehicle movements from Chemsal employees travelling to and from work. Chemsal expect to employ 30 people after two years resulting in an approximate 60 vehicle movements each day.

3.5 Site Access and Parking

Road access to the site is available from Christie Street. The proposed development will have sufficient parking for 40 cars to comply with Penrith Development Control Plan (DCP) 1996 (Industrial Land) which requires warehouse facilities to have one car park space per 100 m^2 of gross floor area.

3.6 Stormwater Management

The majority of the stormwater at the St Marys site will be directed to a main underground drain running from east to west across the site. The stormwater will exit the site at the western boundary and the main discharge point will be equipped with an isolation valve in case of an emergency. Chemsal propose to undertake all loading, unloading, handling and processing within the warehouse building. As well, spill kits will be kept at locations across the site.

3.7 Safety Procedures and Fire Control

Chemsal's Wetherill Park and Laverton North facilities have accredited AS/NZS 4801 Occupational Health and Safety Management Systems, and Chemsal will gain this accreditation for the proposed facility at St Marys. A full suite of safety procedures in line with the AS/NZS 4801 accreditation will be developed.

Chemsal will also implement all fire control relevant Australian Standards including:

- Australian Standard 4326-1995: The Storage and Handling of Oxidizing Agents;
- Australian Standard 4452-1997: The Storage and Handling of Toxic Substances;
- Australian Standard 3833-1998: The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers; and
- Australian Standard 1020-1995: The Control of Undesirable Static Electricity.

The requirements outlined in these standards include the installation of fixed fire fighting equipment, portable fire fighting equipment and a back to base alarm system with 24 hour coverage.

3.8 Waste Chemical Collection and Storage

The proposed Chemsal facility will involve the operations of waste chemical collection, storage and treatment. The facility will collect a variety of chemical wastes from locations across New South Wales including:

- Industrial chemical products;
- Bulk liquids and solids;
- Household chemicals;
- Agricultural chemicals;
- Laboratory chemicals;
- Hospital chemicals;
- Photographic chemicals;
- Automotive wastes;
- Fluorescent tubes; and
- Batteries.

Chemicals will be sorted according to their compatibility and classification under the ADGC and stored in the warehouse at the site, in designated areas. The waste chemicals will be transported to and from the site by the Chemsal fleet of purpose built vehicles. Generally only Chemsal trucks will deliver wastes to the Chemsal facility; however other waste contractors will deliver and remove wastes on occasion. Each Chemsal vehicle is manned by comprehensively trained drivers and industrial chemists and is equipped with all necessary safety and spill-handling equipment. Other waste contractors will be subject to Chemsal procedures and will also be required to maintain appropriate spill response equipment.

Typically the chemical wastes are stored for approximately a week before being transferred to other sites. However, some chemical wastes may be stored for up to three months until a large enough volume is obtained for treatment or transport to another waste treatment facility.

3.8.1 Collection of Chemical Waste

Chemsal will collect waste and surplus chemicals from a variety of sources. These are discussed in Sections 3.8.1.1 to 3.8.1.4.

3.8.1.1 ChemClear

Chemsal will continue to participate in the ChemClear program. ChemClear is a chemical waste disposal program for the safe management of rural agricultural and veterinary chemicals (ChemClear website 2005). It is an ongoing program for the minimisation of the generation and accumulation of unwanted rural chemicals. Collection dates are specified where unwanted chemicals can be consolidated in a designated collection area and are moved by a contractor. Chemsal is the only registered contractor for this program.

3.8.1.2 Household Collections

Resource NSW and local councils provide designated drop off days and areas for waste chemicals around the home that cannot be disposed of to landfill. These include paints, pesticides and herbicides, solvents and household cleaners, motor oils and fuels, batteries, gas bottles, fire extinguishers, flares, pool chemicals, acids and alkalis and photographic chemicals (Resource NSW website 2004). Chemsal is advised of the collection centre and date and travels to the collection area to collect the waste chemicals.

3.8.1.3 Industrial Chemicals

Chemsal also receives regular requests from industry to collect their chemical wastes. The nature and quantity of the waste must be specified so that collection can be arranged by the St Marys facility.

3.8.1.4 Schools and Universities

Chemsal also receives requests to collect chemical wastes from schools and universities, consisting primarily of laboratory waste chemicals. At the St Marys facility the schools/universities will contact Chemsal for collection of these wastes.

3.8.2 Chemical Waste Sorting and Storage

Following collection, the waste chemicals will be transported to the Chemsal facility by vehicles from the Chemsal fleet. The waste chemicals will then be sorted and stored in the warehouse in designated areas in accordance with the Occupational Health and Safety Regulation 2001 (OHS Regulation). The volume of wastes expected to be stored at the St Marys facility are outlined in Table 1.

Table 1 Typical Waste Chemical Storage Volumes

Dangerous goods classification	Volume
Class 2	Minor
Class 3	90,000 L
Class 4.1	Minor
Class 4.2	Minor
Class 4.3	Minor
Class 5.1	2 000 kg
Class 5.2	Minor
Class 6	30,000 kg
Class 8	10,000 kg
Class 9	10,000 kg (aerosol)

All wastes will be stored in appropriate containers in suitably bunded storage areas.

3.8.3 Transfer of Chemical Waste

Chemical wastes that are unable to be treated on site will be transferred to other waste treatment facilities for specialised treatment or disposal. Wastes which will be transferred and their destinations are outlined in Table 2.

Table 2 Chemical Wastes Transferred

Contractor	Type of Wastes Transferred
Veolia Environmental Services	• Acids • Alkali based products • Batteries (nickel cadmium, nickel hydride)
SITA Environmental Solutions, Kemps Creek	• Asbestos • Stabilised arsenic based products
Chemsal Victoria	• Arsenic based products for stabilisation • Cyanide • Gas cylinders (propane and other) • Halogenated solvents • Heavy metals • Organo peroxides • Oxidising agents • PCB materials • Pesticides (general liquid and solid, organochlorine liquid and organochlorine solid) • Reactives • Toxics • Aerosols
Sims	• Batteries (lead acid)
Smorgan	• Batteries (lead acid)
WSN Environmental Solutions Eastern Creek	• Batteries (normal) • Inert solids
TPI Waste services	• General household chemicals • Inert liquids • Photographic chemicals
Nationwide Oil	• Oil
BCD Technologies	• PCB materials • Pesticides (organochlorine liquid and organochlorine solid)
Stericorp	• Pharmaceuticals
Various	• Unspecified (etc. mixtures) liquids and solids

3.9 Waste Chemical Treatment

3.9.1 Hazpak

Hazpak is an ultra high pressure densification device that is used to separate packaging materials from their contents. A Hazpak unit will be utilised at the St Marys site to separate paint from used paint cans, forming steel “billets” (a compacted cluster of crushed cans) with less than 1% paint residue. Approximately 15 paint cans form a steel billet, which is the size of one paint can that has not been crushed. The steel billets are sought after as a premium feedstock for steel recyclers and the paint separated from the paint can is used for energy recovery. The Hazpak unit will be located in the flammable processing area, as shown in Figure 2.

Aside from paint cans, Hazpak units can also be applied to resource recovery from aerosol cans, gas containers and oil filters, and can process anything from a small pharmaceutical asthma puffer, though to a 205 L steel drum. At this stage however, the unit at St Marys is only proposed to be used for paint tins.

3.9.2 Trade Waste Plant

A trade waste plant will be constructed at the St Marys site to treat trade wastewater. The trade waste plant will consist of holding, treatment, storage and discharge tanks. The trade wastewater will be pumped from the tanker to the holding tank where the contents are left to settle. The supernatant (liquid) will be pumped to a treatment tank where flocculent and pH adjusters will be added as required. The treated wastewater will then be pumped to the discharge tanks for analysis prior to discharge to sewer under a Trade Waste Agreement. Oily waters will be treated separately in order to recover oil for recycling.

The trade waste system will be located in the north of the warehouse, as shown on Figure 2.

3.9.3 Fluorescent Lamp Processing

Chemsal will undertake fluorescent lamp processing in order to recover valuable resources such as glass and metallic end caps from fluorescent lamps. This processing will be undertaken in a designated area in the south of the warehouse (refer to Figure 2). The lamps are processed to recover the glass and aluminium components as well as phosphor containing mercury. The mercury is then recovered form the phosphor by distillation for reuse.

3.9.4 Decanting

Oils will be decanted into large drums at the site and transferred to Nationwide Oils for recycling. Class 3 dangerous goods will also be decanted at the site. Class 3 Dangerous Goods contained in packages smaller than 200 L need to be decanted to larger containers to enable resource recovery as a fuel. The Class 3 decanting will be undertaken in the flammable processing area denoted on Figure 3.

Class 6 and Class 8 dangerous goods will also be decanted at the site into larger containers to enable resource recovery. Most of the Class 6 and Class 8 wastes accepted by Chemsal arrive in small containers. These smaller volumes of waste will be decanted into 1 000 L individual bulk containers before being removed from the site for disposal. The decanting areas for Class 6 and Class 8 dangerous goods are denoted on Figure 2.

Volatile vapours may arise from the decanting process. These vapours will be captured and treated by scrubbers which are to be installed in the decanting areas.

3.9.5 Metal and Plastic Shredding

Standard metal and plastic shredders will be installed at Chemsal's proposed facility. The shredders reduce the volume of metal and plastic waste for further processing at specialist recycling plants.

4. STATUTORY REQUIREMENTS

Chemsal's proposal for a resource recovery facility at St Marys requires planning approval in accordance with NSW planning legislation. The EPA Act which is administered by the DoP, is the key legislation. Planning approval is also required to take into consideration any applicable SEPPs, and the development cannot be prohibited by any applicable regional environmental plan (REP) or local environmental plan (LEP). In addition to state planning and environmental legislation, Chemsal's approval will have to comply with applicable commonwealth environmental legislation.

Environmental protection in NSW is dealt with by the POEO Act, which is administered by the Department of Environment and Conservation (DEC). The proposed development must also be considered with regard to this Act.

4.1 State Legislation

The key NSW legislation for Chemsal's proposal is the EPA Act and subordinate regulations. The State legislation includes:

- EPA Act and regulations;
- POEO Act;
- *Occupational Health and Safety Act 2000* (OHS Act) and regulations; and
- *Road and Rail Transport (Dangerous Goods) Act 1997* (RRT (DG) Act).

4.1.1 Environmental Planning and Assessment Act 1979

On 24 March 2006 the Director General of the DoP, as delegate of the Minister for Planning, formed the opinion that Chemsal's proposal is a Major Project due to the proposed annual throughput in excess of 5 000 tonnes of waste, of which more that 1 000 tonnes will be classified under the ADGC. Written advice of this opinion was received from the Director General on 10 April 2006. Therefore Part 3A of the EPA Act will apply which specifies that the Minister for Planning will be the consent authority for the proposal. This is discussed further in Section 4.2.1.

Under Part 3A of the EPA Act an application for development approval of a Major Project is to be lodged with the Director General (Section 75E). This lodgement is to include an Environmental Assessment (EA) for which requirements are to be requested from, and provided by, the Director General.

In addition, Part 3A of the EPA Act provides that the development and environmental assessment processes under Part 4 and Part 5 of the Act do not apply in respect of an approved project. Further, under Part 3A environmental planning instruments (other than SEPPs) do not apply to an approved project. However, the project cannot be approved if the development is prohibited under any environmental planning instrument.

4.1.2 Environmental Planning and Assessment Regulation 2000

The EPA Regulation provides further detail on the process to obtain development consent for a Major Project. This includes statutory timeframes, information to be made available to the public and applicable fees and charges.

4.1.3 Protection of the Environment Operations Act 1997

The POEO Act is the key piece of environmental protection legislation administered by the NSW Department of Environment and Conservation. Chemsal's proposed development will require an environment protection licence under the POEO Act to authorise the carrying out of a scheduled activity at the St Marys premises. Chemsal's operations are considered to be a scheduled activity under Schedule 1 Waste Facilities 1 (a), being:

"Schedule 1 Schedule of EPA – licensed activities

Waste Facilities

(i) A waste facility that is one or more of the following classes:

(a) hazardous, industrial, Group A or Group B waste processing facility, being waste facilities that treat, process or reprocess hazardous waste industrial waste, Group A waste or Group B waste (or any combination of those types of wastes)."

4.1.4 Occupational Health and Safety Act 2000

The OHS Act aims to protect the health, safety and welfare of people at work. Chemsal have developed procedures for the safe handling, storage and transport of the waste chemicals at their facilities in line with their AS/NZS 4801 accreditation. These procedures will be implemented at the St Marys facility to ensure that it complies with the OHS Act.

4.1.5 Occupational Health and Safety Regulation 2001

The OHS Regulation supports the OHS Act in achieving reductions in the incidence of workplace injuries and is applicable to all places of work. The regulation specifies that employers must identify and control all hazards to health and safety in the work place. Chemsal has AS/NZS 4801 OHS Management System accreditation for both of its Wetherill Park and Laverton North sites. Chemsal will gain the same accreditation at the St Marys site to ensure full compliance with the OHS Regulation.

The OHS Regulation also specifies that the occupiers of premises where dangerous goods are stored and handled above certain quantities are required to notify WorkCover of the presence of the goods. The notification is to be accompanied by a fee and will need to include information relating to the nature of activities involving the Dangerous Goods as well as the Class, Packing Group and maximum quantity of Dangerous Goods to be stored or handled. Chemsal trigger the notification quantities for the storage and handling of Class 3, Class 8 and Class 9 Dangerous Goods and will therefore need to notify WorkCover of their presence.

4.1.6 Road and Rail Transport (Dangerous Goods) Act 1997

The RRT (DG) Act regulates the transport of dangerous goods (other than explosives) by road and rail to promote public safety and protect property and the environment. The transport of dangerous goods involves importing, loading, consigning, marking and placarding of goods, and driving of vehicles. Chemsal have written procedures for the segregation, packaging, handling and transportation of hazardous wastes and waste classified under the ADGC to ensure compliance with the RRT (DG) Act at all times.

4.2 State Environmental Planning Policies

SEPPs are legislative environmental planning instruments administered under the EPA Act. SEPPs deal with issues considered to be significant to the state and people of NSW. The SEPPs applicable to Chemsal's proposed development include:

- SEPP (Major Projects) 2005;
- SEPP No. 33 – Hazardous and Offensive Development (SEPP 33); and
- SEPP No. 55 – Remediation of Land (SEPP 55).

4.2.1 State Environmental Planning Policy (Major Project) 2005

The SEPP (Major Projects) 2005 defines developments that are considered to be Major Projects and for which Part 3A of the EPA Act applies. Chemsal's proposed facility will have a throughput in excess of 5 000 tonnes of waste, of which more than 1 000 tonnes will be waste classified under the ADGC. The facility is therefore captured under Schedule 1, Group 9, Section 27 (5) of the SEPP (Major Projects) 2005, being:

"Schedule 1 Part 3A projects – classes of development

Group 9 Resource and waste related industries

27 Resource recovery or waste facilities

(5) Development for the purpose of hazardous waste facilities that transfer, store or dispose of solid or liquid waste classified in the Australian Dangerous Goods Code or medical, cytotoxic or quarantine waste that handles more than 1000 tonnes per year of waste."

This was confirmed on the 24 March 2006 (advice received on 10 April 2006) when Chemsal's proposal was considered by the DoP Director-General on behalf of the Minister for Planning to be a Major Project.

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

SEPP 33 provides definitions for hazardous and offensive industries and hazardous and offensive storage establishments. SEPP 33 also defines proposals that are potentially hazardous and potentially offensive and requires specific matters to be considered in the proposal. This includes the requirement to conduct a preliminary hazard analysis (PHA) to support the development and to advertise the development for public comment.

Guidelines published by the DoP provide guidance on PHA, and in particular the DoP 1994 *Applying SEPP 33, Hazardous and Offensive Development Application Guidelines* outlines the risk screening method to determine if a PHA is required. This risk screening and preparation of a PHA as required will be undertaken for the Chemsal proposal.

4.2.3 State Environmental Planning Policy No. 55 – Remediation of Land

The SEPP 55 states that land must not be developed if it is unsuitable for a proposed use due to contamination. The environmental assessments on the site undertaken by DP between 1997 and 2000 show that the site is suitable for an ongoing commercial/industrial land use.

4.3 Regional Environmental Plans

REPs are legislative environmental planning instruments made under the EPA Act. REPs deal with issues such as urban growth, commercial centres, extractive industries, recreational needs, rural lands and heritage and conservation. REPs do not apply to a project approved under Part 3A of the EPA Act. However, a project cannot be approved under Part 3A of the EPA Act if the development is prohibited by an applicable REP. The REPs applicable to Chemsal's proposal are:

- Sydney REP No. 20 – Hawkesbury – Nepean River (No. 2 – 1997) (SREP 20); and
- Sydney REP No. 30 – St Marys (SREP 30).

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

Chemsal's proposed development falls within the boundaries defined in the SREP 20 map. The SREP 20 controls developments in this area that have the potential to impact on the river environment. Given the closest natural water body to Chemsal's site is South Wianamatta Creek located approximately 1.5 km to the south-west of the site, the development is not expected to impact on the river environment and therefore SREP 20 is not considered further.

4.3.2 Sydney Regional Environmental Plan No. 30 – St Marys

SREP 30 provides framework to plan and develop land known as the ADI site at St Marys. However, inspection of the SREP 30 map shows Chemsal's site falls outside the boundaries of land subject to this plan.

4.4 Local Environmental Plans

LEPs are legislative environmental planning instruments administered under the EPA Act. LEPs are prepared by local Councils and guide planning decisions for local government areas. Similarly to the REPs, LEPs do not apply to a project approved under Part 3A of the EPA Act. However, a project cannot be approved under Part 3A of the EPA Act if the development is prohibited by an applicable LEP. Chemsal's proposal falls within Penrith City Council local government area. Applicable LEPs include:

- Penrith Local Environmental Plan 1996 (Industrial Land); and
- Penrith Local Environmental Plan 1991 (Environmental Heritage Conservation).

4.4.1 Penrith Local Environmental Plan 1996 (Industrial Land)

The Penrith LEP 1996 (Industrial Land) repeals all other LEPs with the exception of the Penrith LEP 1991 (Environmental Heritage Conservation). The Penrith LEP 1996 (Industrial Land) has been developed to encourage a broad range of industrial land uses which promote economic and employment growth within the City of Penrith whilst observing responsible and environmentally sound management practices.

The Penrith LEP 1996 (Industrial Land) prohibits offensive or hazardous industries from being developed in areas zoned 4(a) General Industry Zone. A PHA in accordance with SEPP 33 is being undertaken for the proposal to demonstrate that Chemsal's proposed resource recovery facility is not a prohibited development under this LEP.

4.4.2 Penrith Local Environmental Plan 1991 (Environmental Heritage Conservation)

Penrith LEP 1991 (Environmental Heritage Conservation) is applied to protect and manage the community's heritage assets. The Penrith LEP 1991 (Environmental Heritage Conservation) map shows that Chemsal's site is not on or near any heritage protected assets. Therefore, Chemsal's proposed resource recovery facility is not a prohibited development under the Penrith LEP 1991 (Environmental Heritage Conservation).

4.5 Development Control Plans

Local Council's also prepare development control plans (DCPs) that provide more specific and comprehensive guidelines for development proposals. DCPs do not apply to a project approved under Part 3A of the EPA Act. However, applicable DCPs have been considered to ensure that Chemsal's development complies with Council planning objectives. Applicable DCPs include:

- Penrith City Council Contaminated Land Development Control Plan; and
- Penrith Development Control Plan 1996 (Industrial Land).

4.5.1 Penrith City Council Contaminated Land Development Control Plan

The Penrith City Council Contaminated Land DCP applies to all land within the Penrith local government area. The DCP requires information relating to the past, present and proposed land use to be provided to support the development application to enable Council to determine whether the site is suitable for its proposed use. The environmental assessments on the site undertaken by DP between 1997 and 2000 show that the site is suitable for an ongoing commercial/industrial land use.

4.5.2 Penrith Development Control Plan 1996 (Industrial Land)

The Penrith DCP 1996 (Industrial Land) applies to all land which is subject to Penrith LEP 1996 (Industrial Land) and provides more detailed provisions and controls for development. Development controls applicable to Chemsal's proposed resource recovery facility include:

- B9 Infrastructure – Roads: Chemsal will be required to consider the efficiency of the access and scale of the development proposed.
- B10 Infrastructure – Storage and Removal of Waste: A waste prevention and minimisation plan is to be submitted to Council.
- B11 Infrastructure – Water and Sewer: Chemsal will need to confirm that water and sewer services are available and adequate for the proposed development.
- D2 Site Layout, Including Storage of Materials/Chemicals: Chemsal's proposed site layout will need to be designed to ensure all necessary services and facilities are in place, to allow the facility to operate in an environmentally responsible manner, to encourage landscaping, to ensure visual amenity is not affected, and ensure the use of chemical substances does not have an adverse impact on the local environment.
- D8 Advertising Signs: Chemsal will need to ensure all advertising signs on the proposed facility are in conjunction with the design and construction of the building.
- D9 Fencing: The proposal will require adequate fencing that compliments the building and landscape as well as providing adequate security.
- E1 Air Quality: The Chemsal proposal will need to ensure minimal air impacts to preserve the amenity of adjoining residential areas.
- E2 Noise and Vibration: Chemsal's proposal will need to ensure minimal noise and vibration impacts to preserve the amenity of adjoining residential areas.
- E3 Water Quality: Chemsal's proposal will need to ensure minimal impacts on Hawkesbury-Nepean River system and a high quality of discharge to the sewer and drainage system.

4.6 Commonwealth Legislation

The relevant commonwealth planning and environmental legislation includes:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

There are three triggers under the EPBC Act whereby a Commonwealth Environmental Impact Assessment (EIA) may be required. These include actions that would or are likely to have a significant impact on matters of national environmental significance, actions that would or are likely to have a significant impact on commonwealth land and actions by the commonwealth or its agencies that would or are likely to have a significant impact on the environment inside or outside Australia. Chemsal's proposal for a resource recovery facility at St Marys does not fall into any category that would require an EIA. Therefore, the statutory requirements outlined in EPBC Act have not been considered further.

5. STAKEHOLDER CONSULTATION

The following stakeholders have been contacted to date by Peter J Ramsay & Associates to determine if they have any comments or requirements regarding Chemsal's proposed resource recovery facility:

- Penrith City Council;
- Department of Environmental and Conservation;
- WorkCover NSW;
- Roads and Traffic Authority NSW;
- Sydney Water;
- NSW Health; and
- NSW Fire Brigade.

To date no comments or requirements for the proposal have been provided by any of the stakeholders. Any feedback this is provided will be incorporated into Chemsal's environmental assessment.

6. ENVIRONMENTAL RISK ASSESSMENT

The potential environmental risks resulting from Chemsal's proposed development are outlined in Table 3 below and are discussed further in the following sections. The potential risks are rated on a magnitude of high to low.

Table 3 Potential Environmental Risks at the Proposed Facility

Environmental Aspect	Environmental Impact	Environmental Risk Rating
Hazard	• Toxic spill or leak • Vapour explosion • Fire • Transportation risk	High
Fire Safety	• Ignition risk • Loss of containment of fire • Containment of fire fighting waters • Bushfire impact	High
Air Emissions	• Discharge of wastes to air	Medium
Water quality	• Spills leading to stormwater • Surface water run-off impacting natural waterways • Stormwater management	Medium
Noise and Vibration	• Noise impacts on neighbours • Vibration impacts on neighbours	Low
Traffic and Transport	• Increased volume of traffic • Site access and parking	Medium
Flora and Fauna	• Impacts to native flora and fauna	Low
Indigenous and Non-indigenous heritage	• Impacts on heritage	Low
Visual Amenity	• Visual impacts on neighbours	Low
Socio-economic	• Impacts on social values and community infrastructure in the area	Low
Construction	• Generation of noise/vibration • Erosion of exposed surfaces leading to sediments in surface waters • Use of materials resulting in depletion of natural resources • Generation of litter	Low

Environmental Aspect	Environmental Impact	Environmental Risk Rating
Cumulative Impacts	• Environmental impacts from Chemsal facility and neighbouring facilities.	Low

6.1 High Environmental Risks

6.1.1 Safety and Hazard

Chemsal propose to store and treat waste chemicals including hazardous waste and waste classified under the ADGC. Therefore the facility may be potentially hazardous as defined in SEPP 33. A risk screening of the proposal will need to be undertaken in accordance with DoP 1994 *Applying SEPP 33, Hazardous and Offensive Development Application Guidelines* to determine if the facility is potentially hazardous and if a PHA is required. This risk screening and PHA (as required) is currently being undertaken by Moore Consulting and Engineering and will be provided in the EA. A list of the expected types and volumes of chemicals to be stored and treated by Chemsal is provided in Table 4.

Table 4 Expected Volumes and Types of Waste Chemicals to be Processed at the Proposed Facility

Waste Type	Dangerous Goods Class	Expected Volume (approximate) (tonnes/annum)
Wastes from the production of paint and ink	3	440
Wastes from the production of resin	3	50
Ethers	3	1
Organic solvents (excluding halogenated solvents)	3	2 200
Wastes from the production of organic solvents	3	435
Waste oil and waste water	3	130
Phosphorus compounds	4.2	1.0
Wastes containing peroxides	5.1	7.0
Nickel compounds	6.1	3.0
Lead and lead compounds	6.1	3.0
Halogenated organic solvents	6.1	245
Wastes from the formulation of biocides	6.1	230
Organic phosphorus compounds	6.1	50
Pharmaceuticals, drugs and medicines	6.1	30
Wastes from the production of pharmaceutical products	6.1	20

Waste chemicals from research, development and teaching	6.1	420
Acidic solutions or acids in solid form	8	55
Basic solutions of bases in solid form	8	125
Mercury and mercury compounds	8	110
Polychlorinated biphenyls	9	2.0
Halons organic	9	0.02
Asbestos	9	3.0
Clinical and related wastes	9	25
Wastes from photographic chemicals	9	150
Residues from waste treatment	9	15
Waste mineral oil unfit for original use	Non-hazardous	195
Waste tar and residues	Non-hazardous	1.0
Contaminated containers and drums	-	55

6.1.2 Fire Safety

Chemsal propose to store flammable chemicals in the storage warehouse. Therefore, there is a potential fire safety issue and a Fire Safety Study will be undertaken for the proposed development.

6.2 Medium Environmental Risks

6.2.1 Air Emissions

Chemsal's proposal has the potential to generate air emissions including odour as a result of the storage of waste chemicals. Class 3, Class 6 and Class 8 Dangerous Goods will be decanted from small containers into large individual bulk containers. This process has the potential to release volatile chemical species. The volatiles from the Class 6 and Class 8 decanting will be captured and treated by scrubbers. The Class 3 decant will also be captured and treated prior to discharge into the atmosphere. Chemsal have undertaken similar decanting operations at their Laverton North site since 1981 and have never received a complaint regarding odorous or other air emissions.

A review of the proposed scrubber operations and an air quality impact assessment of the emissions from the St Marys facility will be undertaken and the results provided in the EA. The air assessment will be undertaken in accordance with the NSW DEC publication *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, August 2005*.

6.2.2 Water Quality

Chemsal's proposal is for a resource recovery facility that will involve the storage and treatment of waste chemicals, including liquid wastes. Therefore, there is the potential for spills to occur during loading and unloading trucks as well as a result of handling the wastes inside the warehouse. This has the potential to impact on surrounding water bodies. To ensure impacts do not occur, Chemsal will be incorporating the appropriate bunding into the chemical storage areas and loading and unloading areas in the warehouse. Chemsal will also have a number of easily accessible spill kits across the site. In addition, Chemsal have developed procedures for the loading and unloading of trucks to minimise the potential for spills to occur.

6.2.3 Traffic and Transport

Chemsal's proposal will generate traffic as a result of truck movements transporting waste chemicals and from employees driving to and from the site. The proposed development will have 30 truck movements each week of incoming chemicals. In addition, the proposal will have 12 truck movements each week of outgoing chemicals making a total of 42 truck movements each week. Chemsal expect to have 30 employees after two years. Therefore, there is the potential for an additional 60 vehicle movements each day.

Access to the site is available from Christie Street. The proposal also includes the provision of 40 car parking spaces.

Traffic movements due to the proposed facility are not expected to significantly impact on local traffic flows, given the minimal truck movements. As well, parking will be adequately provided for. A more detailed evaluation of traffic impacts will be provided in the EA.

6.3 Low Environmental Risks

6.3.1 Noise and Vibration

The generation of industrial noise is regulated in NSW by the *NSW Industrial Noise Policy 2000*. This policy outlines two criteria for noise generation: intrusive noise and amenity. The intrusive noise criteria outlines that a source of continuous noise should not be more than five decibels above background levels. The amenity criteria are specific acceptable noise levels for industry for receivers (residences, school, hospital etc.) in the community.

Some level of noise is expected to be generated at the site due to the operation of the proposed resource recovery facilities. The main potential noise sources are the Hazpak system, the shredding operations and the trade waste plant. These operations will generate some noise due to the mechanical machinery (pumps, Hazpak high pressure crushing etc.) that will be used, although due to the scale of the operations these are not expected to generate a significant level of noise. Further, truck movements for the transportation of waste chemicals on and off the site will also generate some noise at the site.

The resource recovery operations will be housed inside the warehouse building or the flammable processing area. The warehouse will be fitted with additional cladding to the western wall, while the processing area will be fully enclosed with fire rated concrete panels. In addition, there are only expected to be approximately five truck movements per day at the site, which is minimal for an industrial site. Furthermore, Chemsal have been operating a similar facility in Laverton North since 1981 and have never received a noise complaint, operating in full compliance with Victorian noise policy. This facility is also located within an established industrial area.

Therefore, considering that the proposed site is located within the St Marys industrial area and the closest residential area is approximately 600 m to the east of the site, noise and vibration impacts from the Chemsal proposal are not expected to be significant. As such, no adverse impacts on the community are expected from noise emissions.

6.3.2 Flora and Fauna

Chemsal's proposed site is an existing industrial property that is almost completely sealed with concrete apart from garden areas in the north of the site surrounding the car park and along the western boundary of the site. Therefore there is little potential for flora and fauna to be impacted on as a result of the minor modification works required for Chemsal's development, or their ongoing operations.

6.3.3 Indigenous and Non-indigenous Heritage

Chemsal's proposal does not include any major construction works or works that would involve excavation of the site. Additionally, there are no heritage listed buildings or other culturally significant items known to be present at the site. Therefore the proposed development would not have any impact on indigenous and non-indigenous heritage.

6.3.4 Visual Amenity

As the proposal does not include any modifications to the outside of the existing warehouse building (apart from the addition of doors and cladding to the western wall), and only the construction of minor additional structures, there will be no significant impacts on the visual amenity in the area. The minor additional structures to be constructed include a flammable goods processing area and a flammable goods store in the south-west of the site. These areas are shown on the site layout plan presented in Figure 2. The flammable goods processing area and flammable goods store will be constructed of four hour rated concrete panels 5.5 m high. The concrete panels will be painted in neutral colours in keeping with the colour scheme of the existing warehouse building.

Chemsal also propose to undertake additional planting of trees along the western side of the site to provide a wind break and shading for the car park area, as well as to improve the visual amenity of the site.

6.3.5 Socio-economic

Chemsal's proposal for a resource recovery facility will generate employment for 30 people within 2 years, and have a positive economic impact on the community. As the site is located within the St Marys Industrial Area, it is considered that the proposal will not have any adverse effects on the social values and community infrastructure, or on the neighbouring land uses.

6.3.6 Construction

No significant construction works will be required at the St Marys site for the development, as Chemsal propose to use existing warehouse building and car parking areas. Some construction works will be required to ensure adequate bunding across the site and to construct some relatively minor additional structures. Therefore minimal environmental impacts are expected as a result of the construction work.

6.3.7 Cumulative Impacts

The site is located in an established industrial area. As the proposed facility will not generate any significant air or noise impacts, and the traffic movements due to the facility will not be at levels likely to impact substantially on existing flows, measurable cumulative impacts are not expected to result. The cumulative hazard impact from the proposed facility will be considered in the PHA.

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appendix

Figures

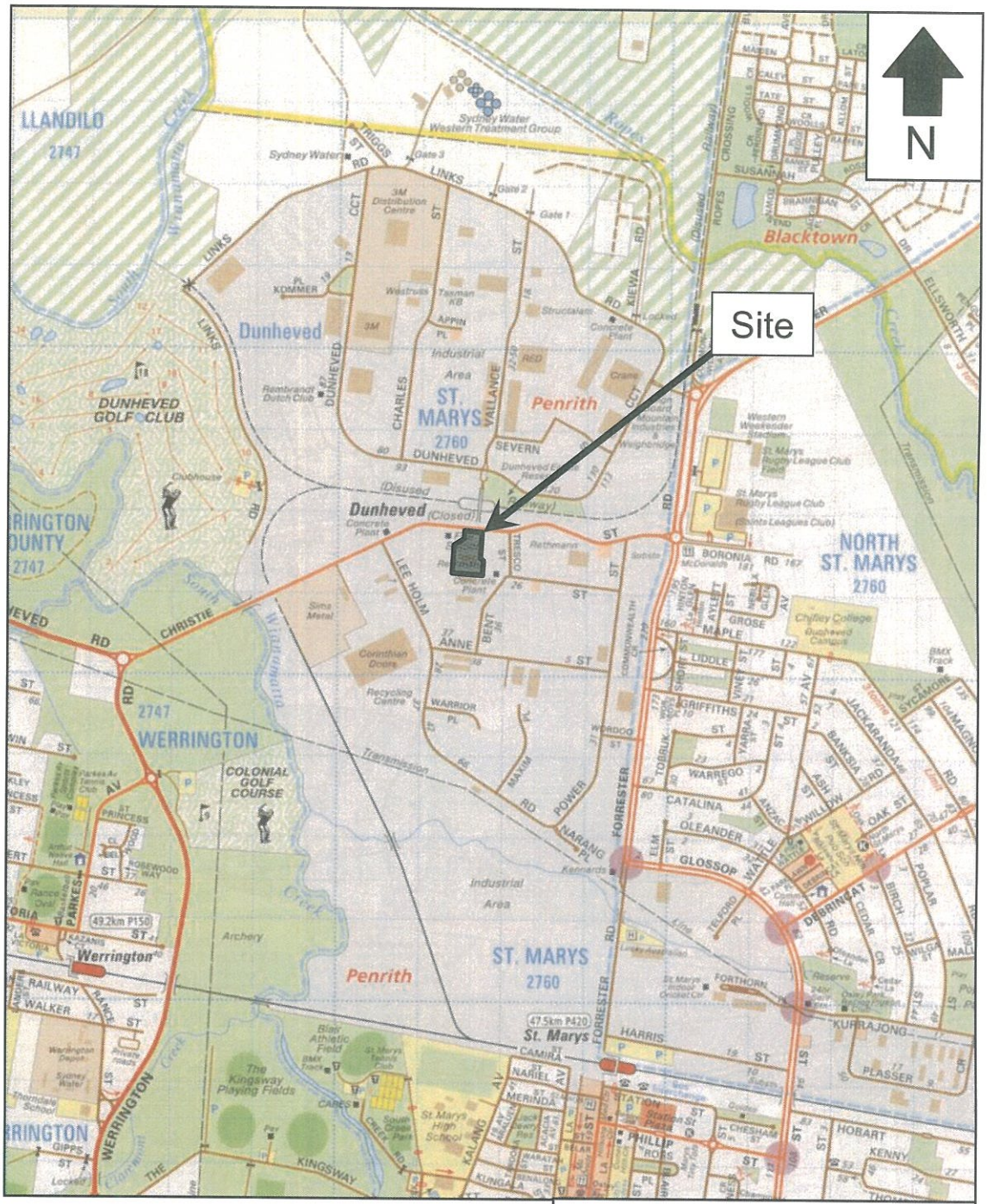

Figure 1 Locality Map

PETER J RAMSAY & ASSOCIATES

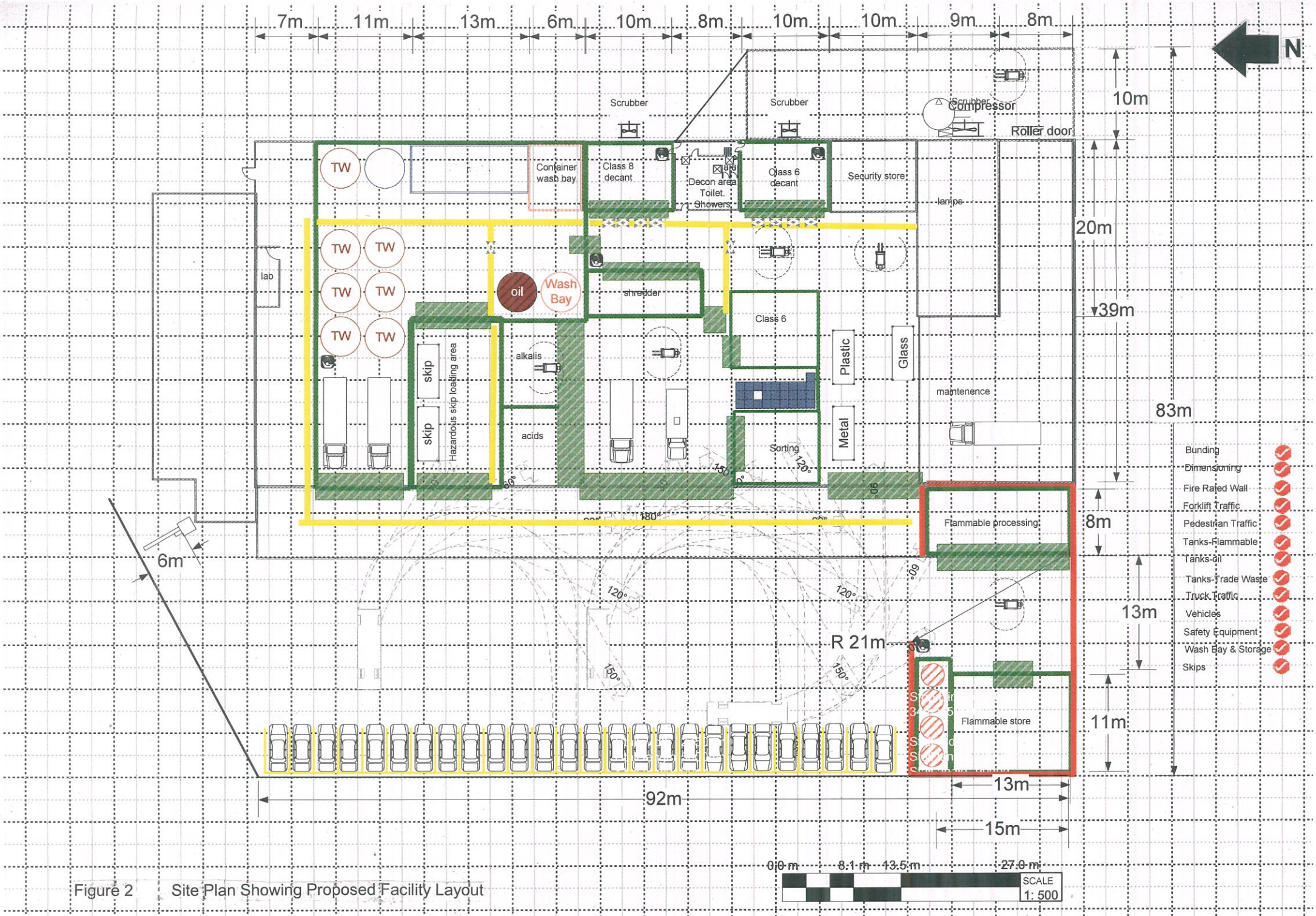

Figure 2 Site Plan Showing Proposed Facility Layout