Report

Hi-Quality Recycling Services Pty Ltd, 37 Lee Holm Road, St Marys NSW

Scoping Report

Submitted to:

NSW Department of Planning and Environment

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Glossary

Term	Definition
BC Act	Biodiversity Conservation Act 2016
BOM	Bureau of Meteorology
C&D	Construction & Demolition
C&I	Commercial and Industrial
CLM Act	Contaminated Land Management Act 1977
DP&E	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	Environment Protection Authority
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
The LEP	Penrith Local Environment Plan 2010
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
MNES	Matters of National Environmental Significance
POEO Act	Protection of the Environment Operations Act 1997
The Site	37 Lee Holm Road, St Marys
RRF	Resource Recovery Facility
SEARs	Secretary's Environmental Assessment Requirements
SEPPs	State Environmental Planning Policies
SSD	State Significant Development
The Project	The project for which approval is being sought
Tpa	Tonnes per annum
WARR Act	Waste Avoidance and Resource Recovery Act 2001

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1.0 INTRODUCTION

1.1 Overview

Hi-Quality Recycling Services Pty Ltd (the Proponent) operates existing resource recovery activities including Construction and Demolition (C&D) resource recovery and recycling, crushing and screening, soil sorting and processing and stockpiling of materials at 37 Lee Holm Road, St Marys (Lot 125 DP 31912) (the Site).

Existing site activities operate under existing use rights and Environmental Protection licences (EPL) 5857 in accordance with the Land and Environment Court Orders (case number 1011 of 2015).

The Proponent proposes further resource recovery infrastructure and waste processing activities on the Site including a resource recovery facility accepting Commercial and Industrial (C&I) waste, a Waste Treatment Facility and ancillary infrastructure and activities including weighbridge, access, sedimentation and stormwater controls (the Project). The Site would process approximately 700,000 tonnes per annum of waste material.

The purpose of the Project is to facilitate increased resource recovery, waste processing and more efficient operation on the Site.

Existing operations approved at the Site would continue as per EPL 5857 with no variation to existing conditions relating to crushing and screening, soil sorting and processing, C&D resource recovery or stockpiling proposed.

1.2 The Proponent

Hi-Quality was established over 50 years ago and proudly remains an Australian family owned business. The business is a diverse, dynamic organisation that can quickly respond to the needs and demands of its customers. The company has grown from a single business as a bulk transport contractor to a multidisciplinary contractor and a major integrated natural resource and recycled products supplier with associated businesses.

Hi-Quality's operations are located over four Australian States and Territories, and specialise in:

- Transport, logistics and plant hire;
- Civil and environmental services;
- Quarrying;
- Resource recovery and recycling;
- Waste management and landfill;
- Building and landscaping product supplies;
- Skip bins; and
- Property development.

Hi-Quality has 13 operational sites that provide extended market coverage and efficient supply and are located at:

- Greater Sydney at Kemps Creek (2), Menangle, Bringelly, Wallacia, Londonderry, Mt Hunter and St Marys;
- NSW Southern Highlands at Windellama and Oallen Ford;
- Canberra;
- Yatala, Queensland; and

- Greater Melbourne at Sunbury/Bulla.

1.3 Site Location

Located within the Penrith Local Government Area (LGA), the Site is located approximately 50 km west of central Sydney and 26 km west of central Parramatta and is accessed via Lee Holm Road, which connects to the Great Western Highway and the M4 motorway approximately 4 km south of the Site.

The Site is zoned IN1 – General Industrial under the *Penrith Local Environmental Plan 2010* (the LEP).

The Site is generally surrounded by existing industrial development to the North and East, with these areas and the South also zoned IN1 – General Industrial. To the immediate West of the Site is RE1 Public Recreation zoned land and beyond this E2 Environmental Conservation including South Creek (refer to Figure 1 and Figure 2).

In the future, it is understood the Site may be surrounded by the Outer Sydney Orbital Corridor to the west as identified within Figure 5 and the St Mary's Intermodal Freight Terminal to the south.

The closest residential receivers are approximately 1 kilometre to the East of the Site beyond the existing industrial development.

It is noted that the Proponent previously operated a hazardous waste treatment facility on an adjacent previously owned property from 1998 until 2005 under Environment Protection Licence 10562. This facility operated approximately 50 metres from the Site and was licenced to treat hazardous, industrial or Group A or Group B waste.

1.4 Existing Operations and Approvals and Environmental Protection Licences

Operations at the Site commenced in the 1970s with the Site owner gaining approval for buildings and infrastructure for operation of concrete batching, casting concrete panels and concrete recycling. In 1994, a series of building approvals were granted by Penrith City Council for construction improvements for the purpose of concrete production and recycling of concrete.

The Proponent has been operating the recycling facility since 1996 receiving C&D waste materials including brick, concrete and spoil material accepted at the Site. With spoil material comprising brick or concrete and intermingled soil, timber and vegetation. Existing operations at the Site are permissible as an 'existing use', as defined by the EP&A Act. That is the use of a building, work or land that was lawfully commenced, but subsequently became a prohibited use under an environmental planning instrument (commencement of *Penrith Local Environment Plan 1996*). Penrith City Council has acknowledged that activities on the Site operate lawfully as an "existing use" in 2010.

The EP&A Act provides express protection for "existing use" of a Site until such time as those uses are abandoned. Clauses 41 and 42 of the EP&A Regulation provide that an existing use may, amongst other things, be enlarged, expanded or intensified, subject to various qualifications. An existing use may also be changed to another use, if the other use is not prohibited with the granting of development consent.

The Site operates under Environment Protection Licence 5857 (EPL 5857) issued by the EPA under the *Protection of the Environment Operations Act 1997* (POEO Act). Prior to the granting of EPL 5857 the EPA issued various licences in relation to plant and equipment used on the Site and for the recycling of materials. EPL licences have been in force and effect in relation to the Site (or in relation to plant and equipment used on the Site) since Hi-Quality took over the Site in 1996.

EPL 5857 specifies various environmental and administrative conditions for the scheduled activities of resource recovery and crushing, grinding and screening. EPL 5857 also nominates the types of waste that can be received and processed at the Site, and imposes conditions related to storage of materials and to the control of amenity impacts arising from the operation of the Site. The Site also has the benefit of development consent DA 98/6766, which regulates sediment control and land rehabilitation works.

In 2014/2015, the EPA proposed variations to the conditions of EPL 5857. That matter became the subject of class 1 appeal proceedings before the Land and Environment Court in 2015. Following a conciliation conference, the Land and Environment Court made orders concerning the variation of EPL 5857.

EPL 5857 permits Hi-Quality to receive the following wastes at the Site:

- Soils (CT1) with exceptions as outlined in the EPL;
- Blast Furnace Slag;
- Asphalt Waste;
- Building and Demolition (C&D) waste; and
- Virgin Excavated Natural Material (VENM).

Under EPL 5857 the amount of material that may be stored in stockpiles at the Site is limited to a total 65,000 cubic metres (excluding material stored within constructed bund walls), while the authorised amount of waste on the Site cannot exceed 110,500 tonnes at any one time.

In accordance with EPL 5857, the hours of operation of the approved crushing, grinding and screening plant and equipment are:

- 7.00am to 4.30pm Monday to Friday; and
- 7.00am to 3.30pm Saturday.

EPL 5857 also requires the implementation of dust suppression measures, sedimentation and stormwater controls, stockpile and plant equipment height limits, buffer areas and fencing requirements.

In 2015 Penrith City Council granted development consent (DA 15/1024) to Hi-Quality for the construction of site boundary fencing, to allow Hi-Quality to meet the requirements of EPL 5857 (as varied by the Court) in relation to fencing.

The approximate total incoming waste volume is 400,000 tonnes, with an equivalent volume of recovered materials leaving the Site each year. That waste stream may be broken down into the following approximate categories and tonnages:

- Crushing and screening – 200,000 tonnes
- Soil Sorting and Processing – 150,000 tonnes
- Construction and demolition (C&D) waste recycling – 50,000 tonnes.

Figure 1: Site Location

Figure 2: Site and Surrounding Zoning (adapted from *Penrith Local Environment Plan 2010*)

1.5 Purpose of this Report

The Project is considered to be State Significant Development (SSD) on the basis that it satisfies Clause 23(3) in Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011*. Specifically:

- *Development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste.*

Note: resource recovery facility, waste disposal facility, waste or resource management facility and waste or resource transfer station have the same meanings as in the Standard Instrument.

This Scoping Report has been prepared to support an SSD application and to support the request for Secretary's Environmental Assessment Requirements (SEARs) for the Project, which would inform the preparation of an Environmental Impact Statement (EIS) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This report provides the strategic need for the Project, a description of the Project, statutory approval requirements as well as the identification of key potential environmental issues that may be associated with the Project to inform the SEARs and the subsequent EIS.

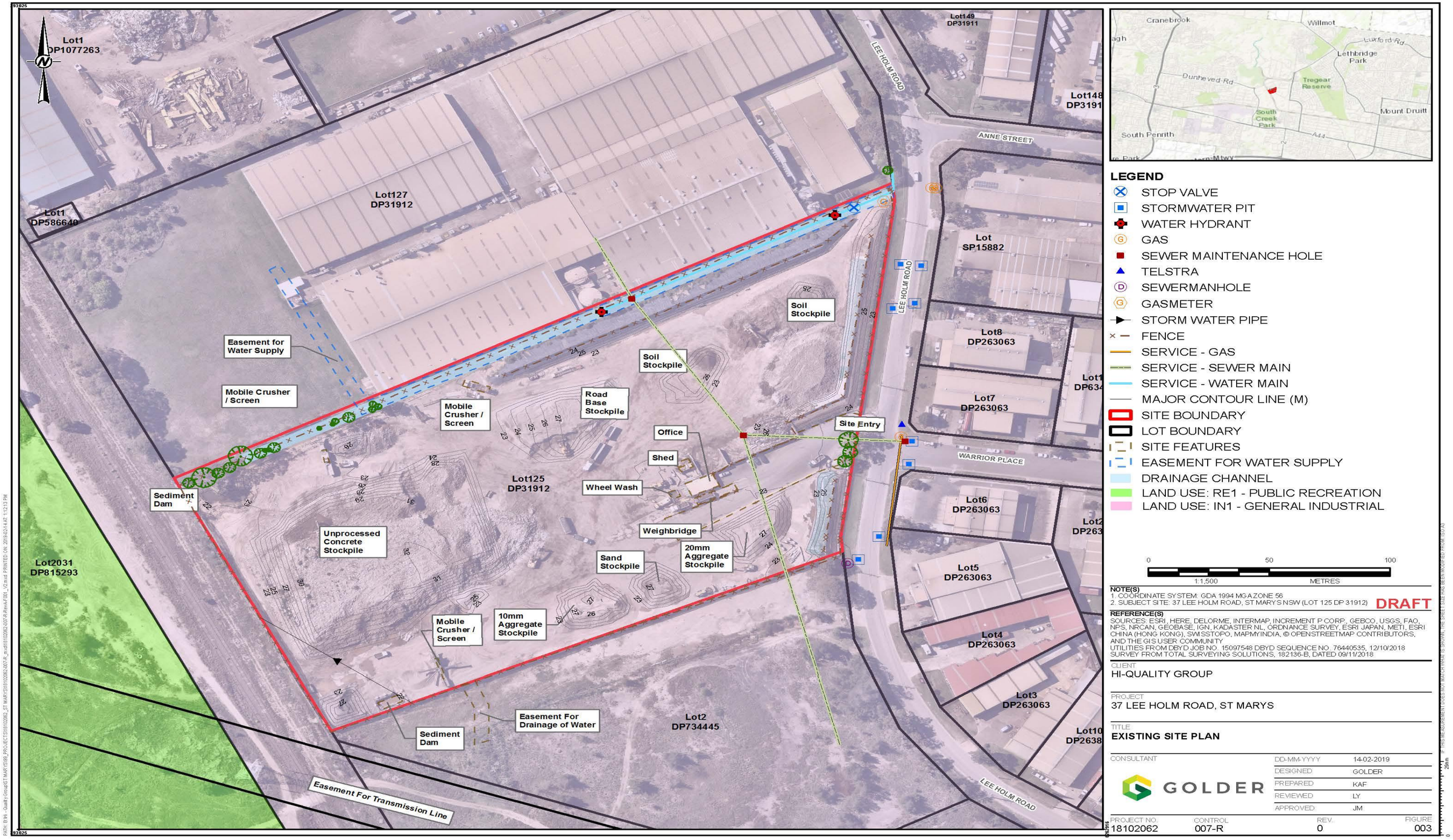

Figure 3: Existing Site Layout

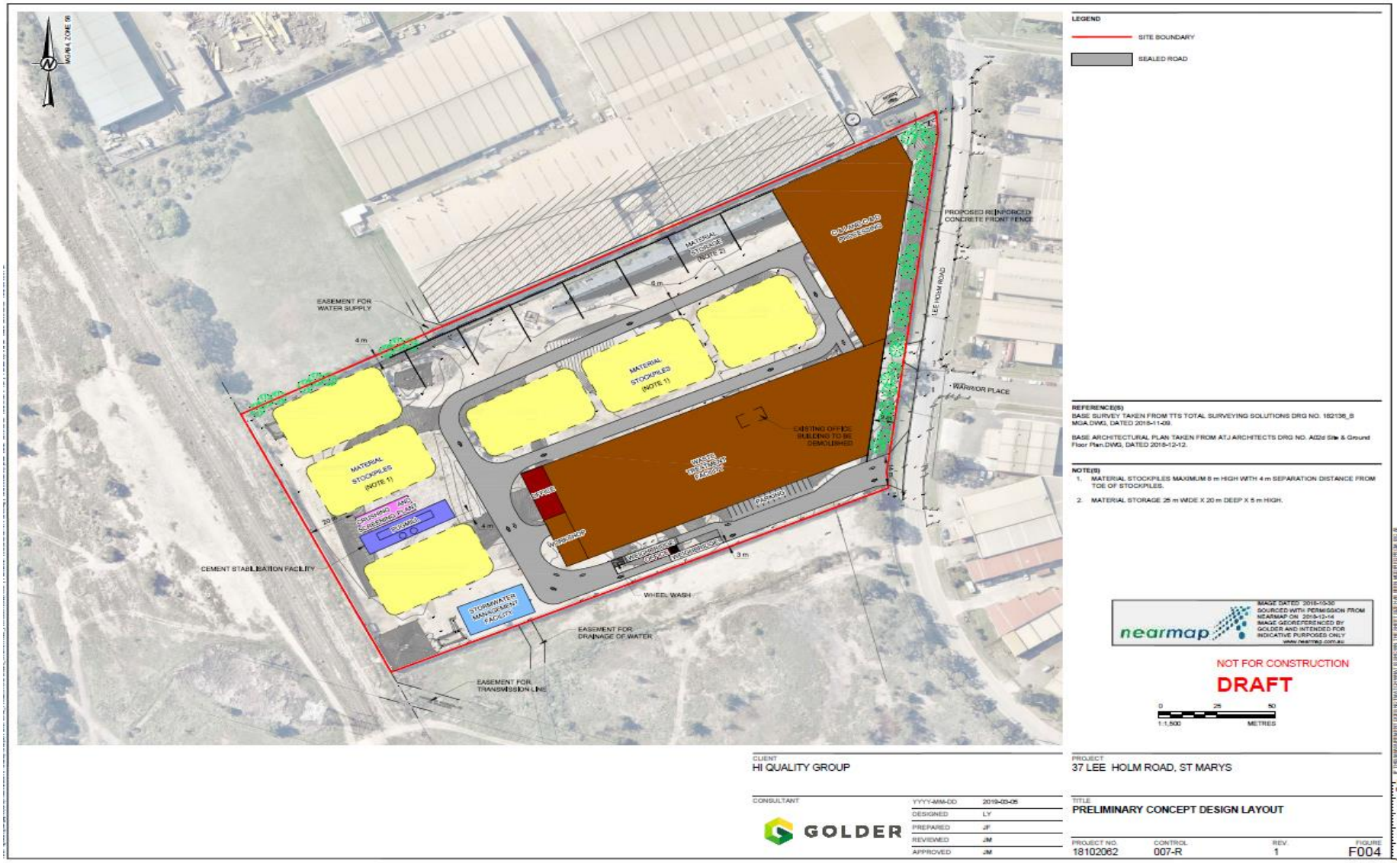

Figure 4: The Project layout

2.0 STRATEGIC NEED AND PROJECT JUSTIFICATION

2.1 Strategic Need

The Project is aligned with a number of legislative and strategic drivers.

The *National Waste Policy: Less waste, more resources* (Department of the Environment, Water, Heritage and the Arts, 2009) came into effect in November 2009 and is a collaborative policy that sets the direction for waste management and resource recovery from 2010 to 2020 in Australia. The aims of the policy are to:

- Avoid the generation of waste and reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource;
- Ensure that waste treatment, disposal, recovery and re-use is undertaken in a safe, scientific and environmentally sound manner; and
- Contribute to the reduction in GHG emissions, energy conservation and production, water efficiency and the productivity of the land.

Six key directions were established to achieve the aims of the National Waste Policy and are detailed in the National Waste Policy Implementation Plan. Key directions include:

- Improving the market: Efficient and effective Australian markets operate for waste and recovered resources, with local technology and innovation being sought after internationally.
- Pursuing sustainability: Less waste and improved use of waste to achieve broader environmental, social and economic benefits.

The Project is consistent with these key directions by reusing and recovering materials that would otherwise go to landfill. This includes accepting waste materials that can be sorted and treated to provide products that can be beneficially used.

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) establishes the waste hierarchy that prioritises avoidance, followed by recycling, recovery and disposal, while the *Protection of the Environment Operation Act 1997* (POEO Act) establishes the waste levy as a financial incentive for recycling over disposal.

The key waste policy tool under this framework is the NSW “Waste and Resource Recovery Strategy 2014-21”, which includes the following goals:

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

The NSW State Government 2021 plan re-commits the government to achieving the WARR Strategy recycling targets as a key priority Goal 23.

The Project is also aligned with the Greater Sydney Commission’s 2018 “Greater Sydney Region Plan: *A Metropolis of Three Cities”* that aims to:

- Set a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters;
- Inform district and local plans and the assessment of planning proposals;

- Assist infrastructure agencies to plan and deliver for growth and change and to align their infrastructure plans to place-based outcomes; and
- Inform the private sector and the wider community of the growth management and infrastructure investment intentions of government.

In relation to waste, the Greater Sydney Region Plan's Planning Priority W19 seeks to optimise self-sufficiency through developing greater localised precinct-wide waste processing capacity that promotes efficiency. The location of the Project including its proximity to identified major projects to be constructed and its access to transport links including the Greater Western Highway and the M4 makes the Site a strategic resource recovery asset that would play a key role in achieving this vision.

In addition, Objective 35 identifies that more waste should be re-used and recycled to support the development of a circular economy and that while "…the provision of waste management is an essential service to communities. Existing waste management facilities do not have the capacity to accommodate projected growth" (Greater Sydney Commission's 2018). Furthermore, existing waste management facilities need to be protected from residential encroachment and at the same time address ongoing environmental issues such as odour, noise, truck movements and dust.

The Western City District Plan (a subplan of the "Greater Sydney Region Plan: *A Metropolis of Three Cities"*) *also states:*

There is diminishing capacity in existing landfill sites in Greater Sydney, with more waste being sent to landfill outside the region. This increases costs to the community. Additional sites for resource recovery within Greater Sydney would reduce waste going to landfill and the associated transport costs. …Therefore, retaining industrial land locally for waste management and recycling is critical.

Land use plans need to address opportunities to develop recycling and waste management facilities.

In providing for the resource recovery of a variety of materials for reuse, the Project aims to keep resources circulating in our economy to maximise value, generate local jobs and minimise waste. As such, it is directly related and aligned with recent discussion papers and draft policy including:

- NSW EPA (October 2018) "Too Good To Waste" Discussion paper on a circular economy approach for NSW.
- NSW EPA (October 2018) NSW Circular Economy Policy Statement "Too Good To Waste".
- Greater Sydney Commissions (October 2018) "A Metropolis that Works": Thought Leadership Series: TLP 2018–1.

2.2 Need for the Project

As a long established resource recovery business in Western Sydney, the Proponent supports the strategic need and legislative drivers for waste recovery. The Project directly contributes to meeting the NSW Government's waste strategies and targets. The Site is ideally located for the Project because:

- The Site is located in Western Sydney to service a number of major urban areas (including; Penrith, Liverpool and Fairfield LGAs) and major projects in Western Sydney (M12, Western Sydney Airport);
- The Site is readily accessible from major transport links including the Greater Western Highway and the M4;
- Land use of the Site has a long history of industrial and resource recovery operations that is compatible with neighbouring developments and land uses;

- As an existing waste facility, the waste management footprint (including for new waste infrastructure) and subsequent impact to the environment would be reduced, enabling continued waste operations at an existing facility within the district and allowing continued utilisation of existing waste management infrastructure;
- Proposed new infrastructure and activities would contribute to further diverting waste from limited landfill capacity, which is a demonstrated need through Commonwealth and NSW State Targets and the Strategic Need discussion (refer to Section 2.1).
- The Site is adequately separated from sensitive receivers to enable potential adverse environmental impacts (i.e. air and noise) to be managed and/or mitigated. This is demonstrated by the ongoing operation of the Site that meets all relevant legislative requirements.
- The Site provides contingency to secure future waste disposal options and to complement future alternate resource recovery management options in the Western Sydney Region.

The Project is supported by strong market drivers for waste recovery. Construction activity in residential, non-residential and infrastructure sectors has expanded rapidly, particularly in the Western Sydney region in recent years and is forecast to continue.

The Project would also result in additional waste being diverted from landfill through proposed new infrastructure. This would not only reduce the transport and environmental costs to the community but would result in beneficial reuse thereby supporting the development of a circular economy and addressing the capacity to accommodate projected growth as identified by the Greater Sydney Commission's 2018 "Greater Sydney Region Plan: *A Metropolis of Three Cities"*. The Project would provide the Western Sydney Region with additional capacity waste throughput. This in turn would assist in reducing pressure on Sydney's remaining landfill capacity.

The Site of the Project is strategically located to service high levels of housing growth in Western Sydney in addition to large public infrastructure projects scheduled over the next decade and beyond. This will underpin strong demand for waste recycling capacity in C&D and C&I waste streams. Key public projects, which the Project is well placed to service include the M9, M12, Western Sydney Airport, the Northern Road upgrade, the Outer Sydney Orbital, the Western Sydney Aerotropolis and WestConnex. Recycling capacity will be needed to meet this demand.

The Project will contribute to the objectives of relevant legislative and strategic policy through providing for more efficient recovery of resources and providing materials to projects and relevant industries within the vicinity of the Site where existing waste management facilities are anticipated to not have the capacity to accommodate projected growth (Greater Sydney Commission's 2018). With the Site having a history of resource recovery uses, the Project will ensure this land use activity will operate more efficiently, while also introducing the acceptance of waste streams that will further divert waste from landfill and provide for beneficial reuse, thereby further contributing to reducing costs and improving recovery yields. Thus, there is a clear and demonstrated strategic need and project justification at the Site.

2.3 Alternatives

The Site of the Project has been identified as the most suitable for a number of reasons, including the previous and existing land use that is proposed to be continued, efficiencies associated with utilising existing infrastructure and enabling future operations, minimising potential impacts associated with proposing a new site, in addition to utilising access and proximity to relevant markets and waste generation sources.

Enabling continued and more efficient waste operations at an existing facility and utilisation existing waste management infrastructure where feasible will result in lower environmental and economic costs to the Proponent, customers and ultimately the wider community.

3.0 PROJECT DESCRIPTION

3.1 Overview

Existing site activities include crushing and screening, soil sorting and processing, construction and demolition (C&D) waste recycling and material stockpiling. The Project proposes no change to these activities.

New infrastructure and operational activities would include:

- C&I Resource Recovery Facility;
- Waste Treatment Facility;
- PFAS Water Treatment Facility;
- Bio-remediation Facility; and
- New ancillary infrastructure including: site access, new weighbridge, parking, wheel wash, administration and amenities, sedimentation and stormwater controls.

Existing site activities would also be relocated on the Site.

Existing and proposed volumes are approximately as follows:

Table 1: Existing and proposed volumes

Activity	Approximate Tonnes Processed per annum	Approximate Tonnes Incoming to Site per annum
Existing Operations		
Soil sorting and processing	150,000	150,000
Crushing and screening	200,000	200,000
C&D recycling	50,000	50,000
Proposed Operations		
C&I recycling	50,000	50,000
Waste Treatment Facility	110,000	120,500
PFAS Water Treatment	2500	2500
Storage	20,000	20,000
Bio-remediation Process	100,000	100,000
Cement Stabilisation Facility	150,000	Material sourced from crushing and screening
TOTAL	**832,500**	**682,500**

3.2 Site Layout

The existing layout for the Site is presented in Figure 3 and the proposed layout for the Project is presented in Figure 4 and is described following.

3.3 Access

Access via Lee Holm Road is presented in Figure 4 and would be a sealed road to the weighbridge.

3.4 Weighbridge

A weighbridge and weighbridge office would be constructed. The approximate location of the weighbridge is presented in Figure 4.

The existing wheel wash would be relocated in-line with the proposed additional weighbridge (Figure 4), ensuring no unsealed road between the wheel wash and the vehicle exit at Lee Holm Street.

3.5 Parking

The Project would provide parking spaces for visitors and for staff as shown in Figure 4. Parking locations are approximate and would be refined during detailed design.

3.6 C&I Resource Recovery

The existing C&D sorting process and infrastructure would be supplemented to receive dry C&I waste and would be located in the new building as shown in Figure 4. Current C&D recycling would also be relocated to this building.

50,000 tonnes per annum of C&I waste would be processed at the Site. Incoming waste would be inspected at the weighbridge. Incoming C&I waste would be unloaded within the building. After unloading the waste would be manually pre-sorted using an excavator with grab bucket attachment to remove recoverable materials. Recoverable materials such as metals, plastic, glass and timber would be separated. Remaining material would be shredded and then passed through a trommel screen. Material continuing through the trommel would feed onto the sorting belt. Oversized material would be picked from the sorting belt. The remaining material would pass through a series of magnet and eddy current separators to remove metals and through an air separation plant to remove light material.

Recoverable material would be stored and loaded out on a regular basis as follows:

- Concrete, brick, and masonry will be directed to the crushing and screening area.
- Scrap metal, paper, cardboard, plastics and wood waste will be transferred offsite to appropriately licenced facilities.

Residual waste from the sorting process would be transferred from the Site to an appropriately licenced facility.

3.7 Cement Stabilisation Facility

The Cement Stabilisation Facility would be located as shown on Figure 4. The facility would process up to 150,000 tonnes per annum stabilised sand, aggregate and roadbase sourced from the crushing plant operations. The area would comprise silos for storage of cement, storage tanks for additives, bunded mixing area and area for product stockpiling.

Processing equipment would include:

- 2 x 50T silos;
- Feed hopper;
- Pugmill;
- Stockpile conveyor; and
- Front end loader.

3.8 Waste Treatment Facility

A new building would be constructed for the Waste Treatment Facility as shown on Figure 4. The building will have a maximum height of 12 metres. The building will be constructed using precast/tilt-up concrete panels and/or colorbond sheeting depending on location throughout the structure. A truck wash down area will be located within the building for wash down of vehicles and plant before existing the building. A sprinkler system will be installed within the building.

The Waste Treatment Facility will process up to 110,000 tonnes of waste per annum. It is proposed the facility would treat:

- Contaminated soils;
- Bulk and packaged regulated wastes;
- Waste sludges.

Source material would primarily be generated from industrial processes or contaminated soils that are unable to be disposed of at a General Solid Waste landfill without treatment.

All waste material will be received, treated, stockpiled and loaded out within the enclosed building. Treatment processes would comprise a combination of:

- Chemical Oxidation
- Immobilisation; and
- Treatment processes approved by NSW EPA under General Immobilisation Approvals.

Waste received and treated at the facility would be delivered via tipper or tanker. Bays would be used for separation of incoming soil batches and storage of treated material.

Incoming sludge would be stored in 3 x 20 kL pits. Within the pit, the material would be mixed using an excavator with cement (OPC), fly ash and/or powdered activated carbon added as required to form a spreadable material.

Waste materials would be blended with selected additives using a high sheer mixer. Treatment would be undertaken in a batch process.

Equipment for the Waste Treatment Facility would include:

- 1 x Front End Loader
- 1 x High Sheer Mixer
- 1 x Excavator
- 6 x 50 tonne silos

Treatment additives including cement (OPC), fly ash and powdered activated carbon would each be stored in 2 x 50 tonne silos. Approximately 8,000 tonnes per annum of these materials would be used for immobilisation and sludge processing treatment. Additives for the Chemical Oxidation process including Hydrogen Peroxide and Potassium Permanganate would have a storage capacity of 2.5 tonnes onsite and would be delivered and stored onsite in packaged form. Approximately 2,500 tonnes per annum of chemical additives would be used for treatment.

Treated materials would be analysed in accordance with the NSW EPA Waste Classification Guidelines (2009) and generic and specific immobilisation approvals as applicable.

Approximately 120,500 tonnes per annum of treated material would be disposed to an appropriately licenced landfill facility.

3.8.1 Immobilisation

The immobilisation treatment processes involve chemical reactions, which would reduce the leachability of the waste. Immobilisation would utilise the following processes:

- Chemical fixation: addition of chemical reagents such as powdered activated carbon to chemically stabilise target contaminants; and/or
- Cement-based solidification/stabilisation: blending of Ordinary Portland Cement (OPC) and fly ash as a binding reagent to micro encapsulate organic chemical contaminants in wastes.

This treatment technology is proven for a wide range of contaminated waste types summarised in Table 2 below. These wastes are proposed to be treated at the Waste Treatment Facility.

Table 2: Waste materials treated by immobilisation

Waste Code	Waste Description
A100	Waste from surface treatment of metals and plastics
B100	Acidic solutions or acids in solid form
C100	Basic solutions or bases in solid form
D110	Inorganic fluorine compounds other than calcium fluoride
D130	Arsenic, arsenic compounds
D120	Mercury, mercury compounds
D140	Chromium compounds
D150	Cadmium compounds
D200	Cobalt compounds
D210	Nickel, nickel compounds
D220	Lead, lead compounds
D230	Zinc compounds
D270	Vanadium compounds

Waste Code	Waste Description
D290	Barium compounds (excluding barium sulphate)
D300	Non toxic salts
D330	Inorganic sulphide
D340/D350	Chlorates/ perchlorates
D360	Phosphorus compounds
H170	Waste wood preserving chemicals
J120	Waste oil/ hydrocarbon mixture/ emulsions
K100	Animal effluent and residues (abattoir effluent, poultry and fish processing wastes)
N120	Soils contaminated with a controlled substance
N140	Fire debris and fire wash waters
N150	Fly ash
N160	Encapsulated, chemically-fixed, solidified or polymerised wastes
N190	Filter cake
N205	Industrial waste water treatment/disposal residues
T100	Chemical waste arising from a research and development or teaching activity

3.8.2 Chemical Oxidation

The chemical treatment process involves reduction/oxidation reactions to convert hazardous compounds to non-hazardous or less toxic compounds that are more stable, less mobile or inert. Commercial oxidants are blended with the incoming waste material to remove or reduce organic contamination including:

- Single-bonded, alkanic hydrocarbons such as benzene;
- Chlorinated hydrocarbons, such as trichloroethylene and perchloroethylene; and
- Polycyclic aromatic hydrocarbons (PAH), such as benzo(a)pyrene, benzo(b)fluoranthene and naphthalene.

This treatment technology is proven for a wide range of contaminated waste types summarised in Table 3. These wastes are proposed to be treated within the Waste Treatment Facility.

Table 3: Waste types treated by Chemical Oxidation

Waste Code	Description
J120	Waste oil/hydrocarbon mixtures/emulsions
N120	Soils contaminated with a controlled substance

Waste Code	Description
N190	Filter cake
N205	Industrial wastewater treatment/disposal residues

3.9 PFAS Water Treatment Facility

The Per- and polyfluoroalkyl substances (PFAS) contaminated water treatment process would comprise carbon based adsorption treatment using mainly activated carbon. The PFAS Water Treatment Facility would be located within the Waste Treatment Facility shown in Figure 4. Wastewater received and treated at the facility would be primarily generated from industrial processes or contaminated sites. Approximately 2.5 ML per annum of PFAS contaminated water would be treated at the Facility.

Waste water would be delivered to the Site in tankers and unloaded into one of 4 x 50,000 kL tanks in a mixer/clarifier tank. Activated carbon and additives would be added to the waste water within the mixer. Additives for the PFAS Water Treatment process include activated carbon, polymer and aluminium sulphate. These additives would be delivered and stored onsite packaged.

Treated waste water would be stored in 4 x 50,000 kL tanks for testing prior to disposal. The treated water and the spent activated carbon would be analysed in accordance with the NSW EPA Waste Classification Guidelines (2009), the treated waste water would then be disposed to sewer as liquid trade waste and spent activated carbon from the treatment process will be disposed of at an appropriately licenced landfill.

Equipment for the PFAS Water Treatment Process will include:

- 8 x 50,000 kL Tanks
- 20 kL Mixer/Clarifier

3.10 Storage, Consolidation and Transfer

Approximately 20,000 tonnes per annum of waste materials would be accepted at the Site for storage, consolidation and transfer to an appropriately licenced facility. Accepted material would be unloaded, stored, consolidated and loaded for transfer within the Waste Treatment Facility building shown on Figure 4. In addition to the wastes identified in Table 1, Table 2 and Table 4, the waste types presented in Table 4 would also be stored for consolidation and transfer at the Site.

Table 4: Waste types for storage, consolidation and transfer

Waste Code	Description
N220	Asbestos
M100	Material containing polychlorinated biphenyls ((PCB's), polychlorinated naphthalene's (PCN's), polychlorinated terphenyls (PCT's) and/or polybrominated biphenyls (PBB's)
M220	Isocyanate compounds

3.11 Bio-remediation Facility

The Bioremediation Facility would be located within the Waste Treatment Facility shown on Figure 4. The Bioremediation Facility would treat up to 100,000 tonnes per annum of contaminated soil via bio-remediation processes. The incoming waste loads would be unloaded within the Bioremediation Facility. Bays would be

used for separation of incoming soil batches and storage of treated material. The soil would be blended with bacterial reagent and treated in aerated stockpiles within the enclosed building. Through 'bio-stimulation', the bacteria would digest, and degrade hydrocarbon material into carbon dioxide, water and benign organic elements.

Approximately 50 tonnes per annum of bacteria, nutrients (Urea, Superphosphate) and biodegradable surfactant additives would be delivered to site packaged. The facility would allow for storage capacity of approximately 5 tonnes of each additive onsite.

Equipment for the Bioremediation Facility would include a front end loader and aeration equipment.

The treated soil would be analysed in accordance with the NSW EPA Waste Classification Guidelines (2009) and generic and specific approvals as applicable prior to beneficial reuse. Approximately 100,050 tonnes per annum of treated soil produced by bio-remediation would be used for beneficial reuse.

Bio-remediation is an effective proven treatment technology for the following waste types.

Table 5: Waste Types Treated by Bio-remediation

Waste Code	Description
J120	Waste oil/hydrocarbon mixtures/emulsions
K100	Animal effluent and residues (abattoir effluent, poultry and fish processing wastes)
N120	Soils contaminated with a controlled substance
N190	Filter cake
N205	Industrial wastewater treatment/disposal residues

3.12 Administration, Maintenance and Amenities

Administration, Amenities and a Maintenance Workshop would be incorporated into the design of the new building. The layout of these would be determined during detailed design.

3.13 Re-siting Stockpiles

Stockpiling of processed and unprocessed waste materials would continue in accordance with existing consent conditions and the Site EPL conditions. Existing stockpiles as shown on Figure 3 are required to be relocated for construction of the Waste Treatment Facility. Potential re-location areas would be determined as part of the EIS.

3.14 Stormwater

The Project would include upgrade of the existing stormwater management infrastructure. The Site would have a catchment boundary drainage system. The drainage through perimeter diversion drains would be collected into a Stormwater Management Facility as shown on Figure 4. The layout of this system would be determined during detailed design.

3.15 Water Supply

Water demand would be met through an existing connection to Sydney Water mains water supply that runs along Lee Holm Road and along the northern site boundary and reuse of onsite stormwater for dust suppression.

3.16 Utilities

The Project would utilise existing utilities connections.

3.17 Construction of the Project

Construction methods would be determined at the time of construction in accordance with the project approval conditions. Estimated construction time is approximately 6 months. Construction would be carried out in accordance with a Construction Environmental Management Plan and Construction Quality Assurance Plan and would comprise the following key activities:

- Roadworks for access and internal routes;
- Construction of Weighbridge;
- Construction of Waste Treatment Facility and C&I and C&D Processing Building; and
- Construction of stormwater management infrastructure.

Roadworks: the construction of the Site access and entry roads would have a construction period of approximately 1 month and involve the preparation of base and sub-base layer, asphalt or concrete and sealing where required and associated stormwater drainage and collection.

Weighbridge: Construction of the new weighbridge would have a construction period of approximately 1 month and involve installation of concrete access ramps, construction of weighbridge office.

Waste Treatment Facility and C&I and C&D Processing Building: Construction would take approximately 3 months and involve construction of the foundation and slab would involve excavation of footings, laying formwork, placing reinforcement, concrete pouring and curing, erection of the walls and cladding. It would also involve the installation of the ventilation systems, sprinkler system, electrical and plumbing.

Stormwater management infrastructure: Construction of stormwater management infrastructure is expected to include installation of sediment and water storage basin, culverts, drainage channels and rock lined apron at point of discharge. Construction period would be approximately 3 months.

3.17.1 Equipment

Equipment necessary for the construction of the Project would include dozers, graders, compaction equipment, backhoes, excavators, rollers, truck, concrete pumping equipment, air compressors, concrete vibrators and saws, mobile cranes and welders.

3.17.2 Construction Environmental Management

Prior to construction a Construction Environmental Management Plan (CEMP) would be prepared. All construction works would be undertaken in accordance with the construction environmental controls presented within the EIS and include consideration of relevant Project approval conditions.

3.17.3 Construction Hours

Standard construction hours of 07:00 to 16:30 Monday to Friday and 08:00 to 13:00 on Saturdays with no work on Sundays and public holidays is proposed. The construction phase duration is expected to be 6 months.

3.17.4 Work Force

The construction workforce would vary throughout the construction period depending on the activities underway. Typically, the construction workforce would be up to 20 persons (under normal conditions) and vary up to 50 persons (during high activity events).

3.18 Operation of the Project

3.18.1 Hours of Operation

It is proposed that the Project would receive waste and dispatch products 24 hours a day all year round. Processing operations would be undertaken between 6 am and 6 pm.

The technical assessments completed for the EIS will consider the proposed operational hours for each activity.

3.18.2 Work Force

A total of up to 30 personnel is estimated for the operation of the Project.

3.18.3 Environmental Management during Operation

A detailed description of environmental management during operation would be provided in the EIS and would include:

- Traffic and transport management;
- Materials and waste management;
- Landscape and visual impact management;
- Water Management;
- Air quality management; and
- Noise, vibration and lighting management.

4.0 STRATEGIC AND STATUTORY CONTEXT

This section provides an overview of the Project in relation to relevant strategic and legislative planning requirements. A detailed assessment of all the relevant legislation would be undertaken as part of the EIS.

4.1 Commonwealth Legislation

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

- World heritage properties
- National heritage places
- Ramsar wetlands of international importance
- Listed threatened species and communities
- Listed migratory species
- Commonwealth marine environment
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines)
- A water resource, in relation to coal seam gas development and large coal mining development

The requirement for a Commonwealth approval is assessed through a referral process to the Commonwealth Department of Environment and Energy. If the Commonwealth Minister for Environment and Energy determines that a Project is likely to have a significant impact, the Project would become a controlled action and approval of the Commonwealth Minister is required.

The need for a referral is based on two triggers. The first is that it must relate to NES matters. The second is that it must have a significant impact on such matters.

An initial assessment of the Project against MNES suggests that the Project would not have a significant impact upon these matters and therefore referral to the Commonwealth Minister for Environment and Energy is not considered required. This would be further assessed during technical assessment completed during the EIS.

4.2 NSW Legislation

4.2.1 Environmental Planning and Assessment Act 1979

The NSW EP&A Act and the accompanying *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) provide the statutory and regulatory framework for the environmental assessment and approval of development in NSW. As noted in Section 1.4, existing site activities operates under existing use rights in accordance with the EP&A Act and EP&A Regulation.

Part 4 of the EP&A Act provides for the assessment of ‘development’ that requires development consent, whilst Division 4.1 of Part 4 provides for control the assessment of State Significant Development (SSD).

State Environment Planning Policy (State and Regional Development) 2011 (SRD SEPP) identifies projects that trigger SSD. The Project would be considered SSD under Clause 23 of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011*, which refers to:

23 Waste and resource management facilities

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

Designated Development

The Project is also considered to be designated development requiring an Environmental Impact Statement (EIS) to accompany the DA prior to determination. As specified in Schedule 3 of the EP&A Regulation, the Project is considered designated development as it meets the following trigger:

Clause 32 - Waste management facilities or works

(1) Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste…

Integrated Development

Integrated Development includes development proposals that require development consent and one or more further specific approvals under additional legislation. Where integrated approval is required, the development application must be submitted to the relevant approval body for assessment. The Project will trigger integrated development (under the *Protection of the Environment Operations Act 1997* and Section 91 of the EP&A Act), requiring amendment or a new Environmental Protection Licence (EPL) for the Project.

4.2.2 Other Legislation

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

- *Protection of the Environment Operations Act 1977* (POEO Act): The Project would be a Scheduled Activity as per Schedule 1 of the POEO Act and would consequently require amendment to the existing EPLs for the Site under Section 48 of the POEO Act.
- *Biodiversity Conservation Act 2016* (BC Act): The BC Act provides for the protection and management of threatened species, populations and ecological communities in NSW.
- The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act): The WARR Act aims to encourage the most efficient use of resources to reduce environmental harm and ensure that resource management is undertaken in a logical, sustainable and organised manner. The Project would promote resource recovery and therefore be consistent with the WARR Act.
- *Roads Act 1993*: Roads and Maritime Services would be consulted during the preparation of the EIS.

4.2.3 Environmental Planning Instruments

Local Planning Instruments – Zoning and Permissibility

The relevant local planning instrument is the *Penrith Local Environment Plan 2010* (the LEP). The Project site is zoned as IN1: General Industrial under the LEP. A waste or resource management facility is not permitted in this zoning under the LEP.

In accordance with Division 23 of *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP), clause 120 identifies IN1: General Industrial as a prescribed zone as follows:

120 Definitions

In this Division:

prescribed zone means any of the following land use zones or a land use zone that is equivalent to any of those zones:

…

(c) IN1 General Industrial,

…

***…** with resource recovery facility, waste disposal facility, waste or resource management facility and waste or resource transfer station have the same meanings as in the Standard Instrument.*

Clause 121 identifies that prescribed zones permit with consent the following:

121 Development permitted with consent

(1) Development for the purpose of waste or resource management facilities, other than development referred to in subclause (2), may be carried out by any person with consent on land in a prescribed zone.

(2) Development for the purposes of a waste or resource transfer station may be carried out by any person with consent on:

(a) land in a prescribed zone, …

(c) land on which development for any of the following purposes is permitted with consent under any environmental planning instrument:

(i) industry,

(ii) business premises or retail premises,

(iii) freight transport facilities.

(3) Development for the purpose of the recycling of construction and demolition material, or the disposal of virgin excavated natural material (within the meaning of Schedule 1 to the Protection of the Environment Operations Act 1997) or clean fill, may be carried out by any person with consent on land on which development for the purpose of industries, extractive industries or mining may be carried out with consent under any environmental planning instrument.

Therefore the Project is located within the “Prescribed Zone” of IN1: General Industrial. In accordance with the ISEPP this zoning permits resource recovery facilities and/or waste or resource management facilities. Furthermore, in accordance with Clause 8(1) of the ISEPP:

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

Therefore the Project is permitted with consent in accordance with the ISEPP.

State Environmental Planning Policies

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

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

In addition to permissibility of the Project, the ISEPP identifies development that is considered to be Traffic Generating Development. As per Schedule 3 of the ISEPP, a “Waste or Resource Management Facility” …of any size or capacity is considered to be Traffic-generating development to be referred to RMS.

State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (SEPP 33)

SEPP 33 links the permissibility of a development proposal to its safety and environmental performance. The Project is within the definition of a “potentially hazardous industry” or “potentially offensive industry” under SEPP 33. A screening assessment to determine the need for a preliminary hazard analysis would be undertaken by the Proponent, the findings of which would be presented in the EIS.

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

The Site may include contaminated land. SEPP 55 provides for a State-wide planning approach to the remediation of contaminated land and aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

4.2.4 Strategic Planning

As identified in Section 2.1, the Project is aligned with and consistent with the Greater Sydney Commission’s 2018 “Greater Sydney Region Plan: *A Metropolis of Three Cities”* and the Western City District Plan (a subplan of the Greater Sydney Region Plan).

In relation to waste, the Greater Sydney Region Plan’s Planning Priority W19 seeks to optimise self-sufficiency through developing greater localised precinct-wide waste processing capacity that promotes efficiency. The location of the Project including its proximity to identified major projects to be constructed and its access to transport links including the M4 (and future Outer Sydney Orbital) makes the Site a strategic resource recovery asset that would play a key role in achieving this vision.

The Western Sydney District Plan identifies the need to retain industrial land locally for waste management and recycling such as being proposed by the Project. In addition, the Project directly addresses the Western Sydney District Plan’s stated aim to develop recycling and waste management facilities within the region, which will support the development of a circular economy and address the capacity to accommodate projected growth identified within the Greater Sydney Region Plan.

The Site is adjacent to the Outer Sydney Orbital Corridor preferred corridor route as identified within “Maps for consultation North South Rail Line & South West Rail Link Extension recommended corridors Transport for NSW” March 2018” (refer to Figure 5). The Proponent would consult with RMS on the Outer Sydney Orbital Corridor alignment and further issues associated with the Project as part of the EIS.

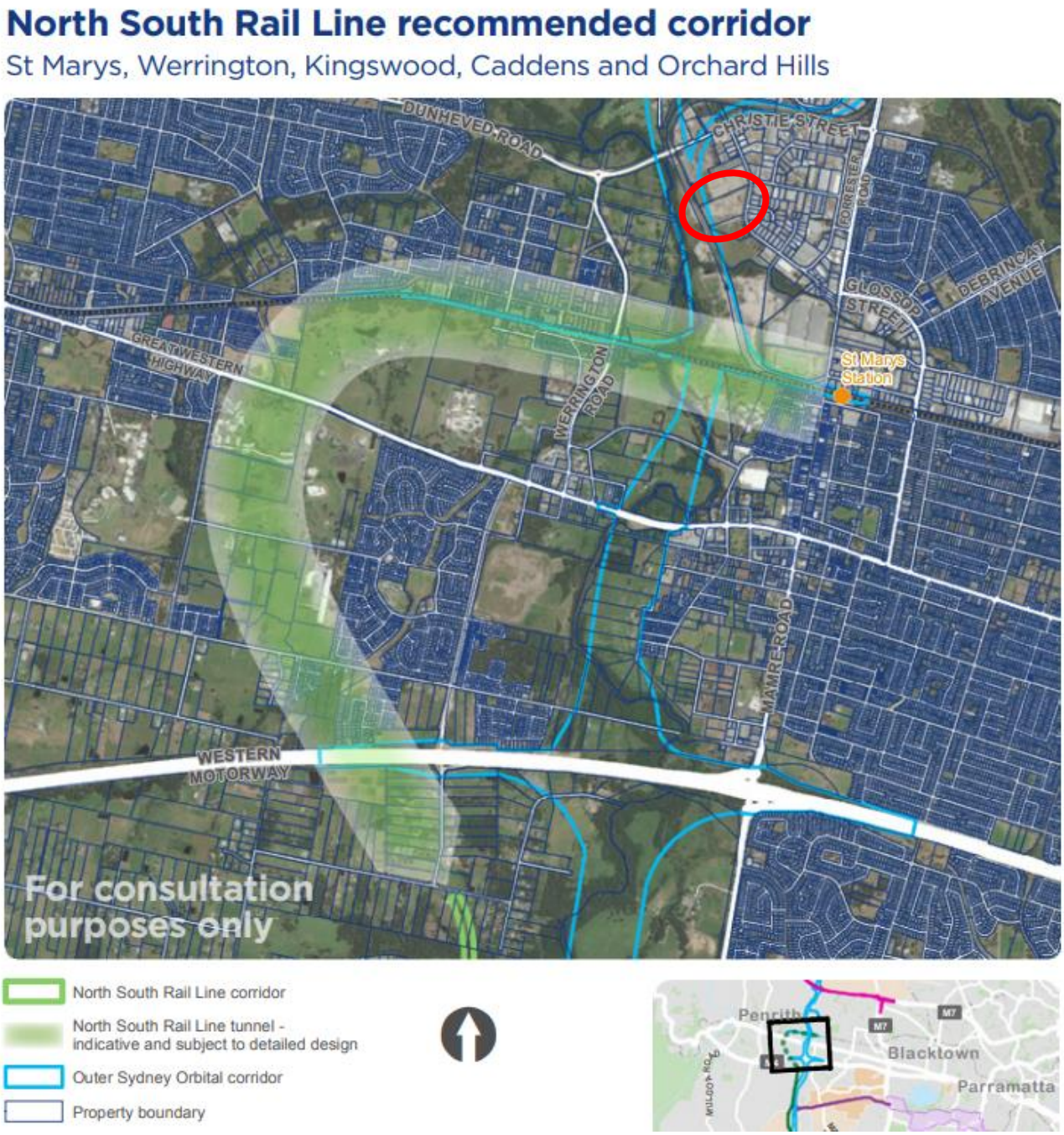

Figure 5: As adapted from "Maps for consultation North South Rail Line & South West Rail Link Extension recommended corridors Transport for NSW" March 2018 p3.

5.0 MATTERS AND IMPACTS

A preliminary environmental risk analysis has been completed to assist in the identification of key issues for the Project based upon likelihood and consequence of potential adverse impacts. The findings of the Preliminary Risk Assessment is presented in APPENDIX A. The assessment of risk is based upon knowledge of the Site including desktop investigations, existing conditions of consent and licences and further identification of environmental constraints and opportunities related to the Site and the activities being proposed as part of the Project. The Environmental Risk Assessment would be further developed and provided as part of the EIS, incorporating further site investigation and identified mitigation measures, the SEARs, and community and stakeholder liaison, to ensure all issues associated with the Project are addressed appropriately. The identified potential key issues and how they would be addressed in the EIS are provided below.

5.1 Waste Management

EPL 5857 for the Site authorises a number of scheduled activities including resource recovery and stockpiling of materials. Waste management employed throughout the operation of the Project would facilitate the maximisation of reuse and resource recovery opportunities, and minimise impact on the surrounding community and environment. Once fully operational, the facility would handle a number of waste streams as identified within the Project Description (refer to Section 3.0). Handling of the waste streams received and processed at the Site would be further detailed in the EIS.

Risks associated with the Project include:

- Receipt of non-conforming wastes at the Site not permitted to be handled.
- Unplanned disruption to operations resulting in large quantities of materials being stored on the Site.

The EIS would identify and discuss the waste management streams relating to the Project. This would involve identifying, quantifying and classifying all waste streams received and processed at the Site in accordance with relevant assessment documentation including obligations under the POEO Act and the NSW Department of Environment, Climate Change and Water, Waste Classification Guidelines (2009). In addition, the EIS would address potential waste management impacts associated with the Project and identify management and mitigation measures for resource use and waste.

5.2 Traffic, Access and Car Parking

Access to the Site is presented in Figure 4 at the southern boundary of the Site.

Construction of the Project would require the use of heavy vehicles to deliver construction plant, equipment and materials to the Site. The construction period would also result in increased use of light vehicles on the surrounding road network associated with the construction workforce. However, it is anticipated that traffic impacts during the construction phase of the Project are likely to be minimal.

During operation the Project, material and waste loads would be directed through the weighbridge for processing. Staff and visitors entering the Site would not pass over the weighbridges. The Project would provide parking spaces for visitors and staff.

Operation would result in an increase in truck and vehicle movements associated with transportation of material to and from the Site and on site operations. The EIS will include a Traffic Impact Assessment that would identify and assess the impacts associated with the Project including:

- The current and future capability of local and regional road infrastructure;
- The type and frequency of heavy vehicles proposed to utilise the Site;

- The suitability of the Project layout to accommodate the change to traffic vehicle movements;
- Details of the internal road layout network and parking in accordance with Australian Standards.

The EIS would include recommendations to mitigate the likely impacts of the Project on the road network including operational management plans and the suitability of the existing road network to accommodate the Project. In addition, appropriate consultation with RMS would be undertaken to satisfy the requirements of ISEPP.

5.3 Noise and Vibration

Background noise levels will be largely influenced by existing operations at the Site and the surrounding road network. The nearest residential receivers are located approximately 1 km to the East of the Site.

During construction and operation of the Project, noise emissions would vary depending on the activities being undertaken. The extent of impacts would vary according to the relationship of the construction works to the receiver location, intervening structures and the construction activity. However, given the background noise and intervening structures, noise impacts to surrounding receivers are expected to be medium prior to mitigation and management measures and low to noise sensitive receivers given their distance from the Site. Noise mitigation may include full or partial enclosure of infrastructure and equipment, maintenance and potential re-sitting of noise bunds and/or re-siting of existing plant on the Site.

A noise and vibration assessment would be undertaken as part of the EIS to determine the potential impacts of the Project during construction and operation. This assessment will:

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

5.4 Air Quality and Greenhouse Gas

During construction and operation of the Project, it is likely there would be additional dust generation and particulate emissions including from earthworks, processing, storage and transport, vehicles, and plant in addition to potential greenhouse gas emissions of plant and vehicles and odours from waste during operation.

An air quality and greenhouse gas assessment would be completed as part of the EIS to identify and assess the potential impacts of emissions of key pollutants and cumulative particulate matter to inform mitigation and management measures for the design and operation of the Project.

5.5 Landscape and Visual

Environmental constraints mapped within *Penrith Local Environment Plan 2010* identify the Site is partially located on land identified as having scenic and landscape values (refer to Figure 6). The LEP identifies within Clause 7.5 (1) the objective of this clause is:

(a) to identify and protect areas that have particular scenic value either from major roads, identified heritage items or other public places,

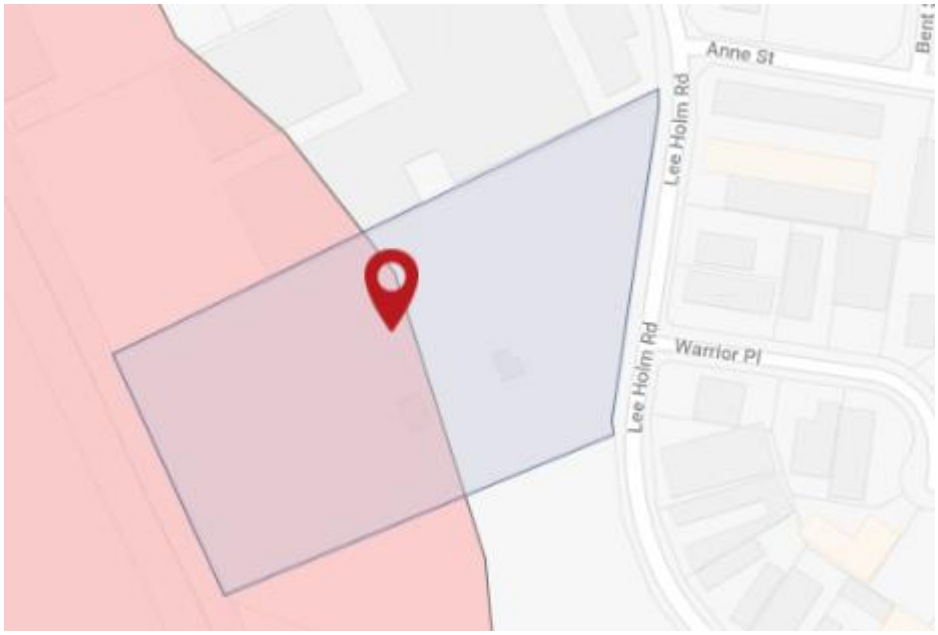

Figure 6: Scenic Protection land indicated in red (*Penrith Local Environment Plan 2010*)

The Project seeks to optimise existing activities on the Site in addition to providing for additional resource recovery infrastructure. Being located within a well-established existing industrial area, the Site is unlikely to impact upon scenic value from public places. While the Site is located adjacent to land mapped as RE1 Public Recreation, this land is also identified as part of the Outer Sydney Orbital Corridor and as such will likely result in rezoning in the future to accommodate roadway.

Assessment of the Project upon landscape and visual amenity would be assessed during the EIS. This would include:

- Identification of the visual qualities present, including the existing landscape character of the region, sensitive locations, catchments and key viewpoints;
- An assessment of the visual impacts of the Project including the magnitude of change to existing views and the visual sensitivity of the viewers;
- The identification of feasible and reasonable measures to mitigate impacts with identified mitigation measures incorporated in the Project design.

5.6 Soil and Water

The Site is relatively flat with stormwater generally draining to either the South West corner of the Site or the northern boundary area of the Site. These areas are identified as flood prone land in the LEP. The existing stormwater drainage system for the Site would be supplemented, to accommodate the Project (refer to Section 3.14) to ensure potential discharges are within generally agreed expectations of Penrith City Council and the EPA.

An assessment of the potential impacts of the Project on groundwater, surface water and waste water at the Site and its immediate surrounds would be completed as part of the EIS. This assessment would include:

- Identifying, assessing and managing any potential risks associated with contamination as a result of uncontrolled release of fuel, leachate or waste waters from increased processing activities during operation.
- Identifying management for clean and sediment laden surface water.

- Assessment of hydrological conditions for the site and the project.
- Identification of management and mitigation measure utilising the hierarchy of mitigation measures to address these issues and incorporate into the Project design.

5.7 Hazards and Dangerous Goods

Existing operations on the Site involve the use and storage of hazardous and dangerous goods including diesel, LPG, oils, greases and hydraulic fluids for plant and infrastructure. Proposing to continue to utilise and store these materials in addition to further additives and wastes, the Project may be classified as a “potentially hazardous industry” or “potentially offensive industry” under SEPP 33. As such, a screening assessment to determine the need for a preliminary hazard analysis would be undertaken by the Proponent, the findings of which would be presented in the EIS.

The EIS would confirm the types, quantities, storage locations and transport movements of dangerous goods proposed to be utilised for the Project. Where any exceedance of relevant thresholds are identified, the EIS would include a comprehensive Preliminary Hazard Analysis (PHA) to determine the cumulative risks associated with the Project.

5.8 Socio-economic

A socio-economic assessment would be undertaken in accordance with relevant standards and would include consideration of strategic planning documents such as the Greater Sydney Region Plan: *A Metropolis of Three* Cities, and the *Western* City District Plan and relevant statistics and further documents that address socio-economic considerations.

Given that the Project seeks to optimise and expand an existing land use on the Site with a similar footprint, it is considered unlikely there would be significant social or economic impacts. Potential construction impacts of the Project are anticipated to be localised and the Project would support ongoing operations and employment at the Site and provide ancillary waste services to the local economy.

5.9 Bushfire

The Site contains land classified as bushfire prone with surrounding buffer area in accordance with relevant mapping and the LEP (refer to Figure 7). However, it is not considered there is a significant risk during construction and operation during the Project. Despite this medium to low assessment, the EIS will address the potential for bushfire hazards to ensure that the Project addresses any relevant requirements for building or development appropriately.

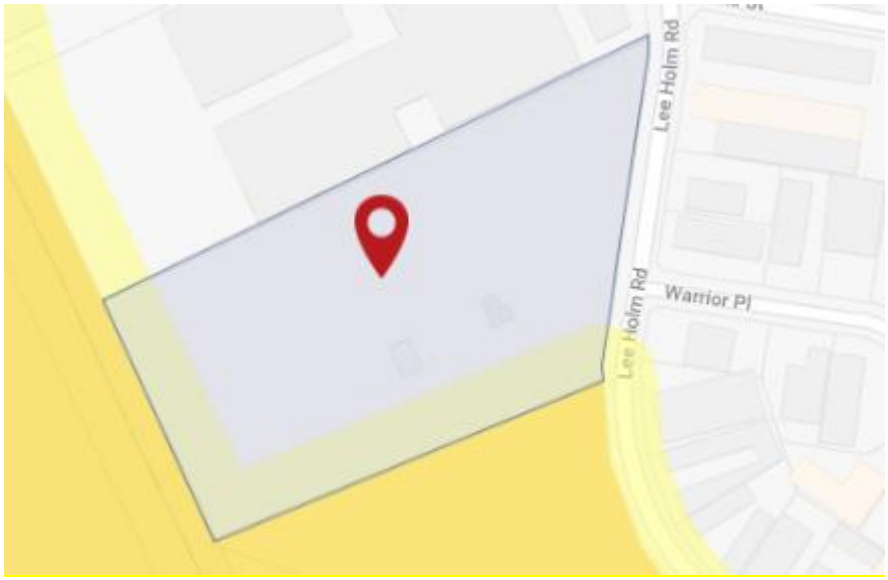

Figure 7: Bushfire prone land indicated in yellow (*Penrith Local Environment Plan 2010*)

5.10 Biodiversity

With the Project seeking to predominantly utilise the existing disturbed footprint on the Site to optimise waste recovery, it is considered unlikely there will be significant potential impacts upon biodiversity within the Site and surrounding area.

5.11 Heritage

A search of relevant publicly available databases conducted on 15 October 2018 did not identify any items or areas of Aboriginal heritage or non-Aboriginal heritage significance within or in close proximity to the Site. As a result of previous disturbance at the Site there is limited potential for the discovery of unexpected items of heritage value.

5.12 Cumulative Impacts

The EIS would include an assessment of known cumulative impacts of the Project in relation to the Site and surrounding area. This section of the EIS would:

- Outline how cumulative impacts have been addressed in relation to known strategic planning documentation that affect the Site;
- Acknowledge the inherent cumulative impact assessment built into some established assessment methodologies e.g. for air quality and traffic;
- Determine whether the project, in combination with the other impacts, may cause a significant or unacceptable change to an environmental, social or economic matter, now or in the future; and
- Determine, to the extent possible, the project's relative contribution to those cumulative impacts.

6.0 COMMUNITY AND OTHER STAKEHOLDER ENGAGEMENT

The Proponent is committed to consulting with the all stakeholders including government agencies, Penrith City Council and the local community. This will ensure that stakeholders have the opportunity to understand the Project and its context and can provide appropriate input and feedback to the Project assessment and determination.

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

- Penrith City Council;
- Environment Protection Authority;
- Department of Planning and Environment;
- Office of Environmental and Heritage;
- Roads and Maritime Services; and
- Nearby land owners and occupiers that may be affected by the Project.

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

7.0 CONCLUSION

Hi-Quality Recycling Services Pty Ltd operates existing resource recovery activities at the Site including crushing and screening, soil sorting and processing, construction and demolition (C&D) waste recycling and material stockpiling.

The Proponent proposes further resource recovery infrastructure and waste processing activities on the Site including C&I resource recovery, Cement Stabilisation, a Waste Treatment Facility, FGAS Water Treatment Facility, Bio-remediation Facility and ancillary infrastructure and activities including weighbridge, site access, parking, wheel wash, administration and amenities, sedimentation and stormwater controls.

The purpose of the Project is to facilitate increased resource recovery, waste processing and more efficient operation on the Site.

The Project would be assessed as SSD under Clause 23 (waste and resource management facilities) of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* and as such, requires the preparation of an EIS and consent from the Minister for Planning and Environment.

The potential environmental impacts of the Project without mitigation have been identified and assessed as part of a preliminary environmental risk assessment. The potential key impacts of the Project identified as having a medium risk include:

- Traffic, Access and Parking;
- Waste Management;
- Noise and Vibration;
- Landscape and Visual Amenity;
- Soil erosion, Stormwater Runoff, Contamination and Flooding;
- Air Quality and Greenhouse Gases;
- Hazardous and Dangerous Goods; and
- Bushfire.

Low risk impacts of the Project included impacts to biodiversity, potential socio-economic impacts and heritage as identified in the risk assessment (APPENDIX A).

The environmental risk analysis would be further developed and provided as part of the EIS, incorporating further site investigation and identified mitigation measures, the SEARs, and community and stakeholder liaison, to ensure all issues associated with the Project are addressed appropriately. All environmental issues would be further assessed within the EIS, with technical studies being completed where required. Mitigation and management measures would be identified and proposed within the EIS to reduce environmental impacts to an acceptable level where required.

In addition to addressing the above environmental issues, the EIS would include the following in accordance with Schedule 1 of the EP&A Regulations:

- A detailed description of the Project including its components, construction activities and potential staging;
- A comprehensive assessment of the potential impacts on the key issues including a description of the existing environment, assessment of potential direct and indirect and construction, operation and staging impacts;

- Description of measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the potential impacts; and
- Identify and address issues raised by stakeholders.

8.0 IMPORTANT INFORMATION ABOUT YOUR REPORT

Your attention is drawn to “Important Information Relating to this Report” (LEG04, RL2), which is attached as APPENDIX B of this Report. The statements presented in this document are intended to advise realistic expectations of the Report and ensure that all parties who may rely on this Report are aware of the responsibilities each assumes in so doing.

9.0 REFERENCES

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NSW Environment Protection Authority (EPA) (2018) “Too Good To Waste” Discussion paper on a circular economy approach for NSW.

NSW Environment Protection Authority (EPA) (2018) NSW Circular Economy Policy Statement “Too Good To Waste”.

Transport for NSW (March 2018) “Maps for consultation North South Rail Line & South West Rail Link Extension recommended corridors”

Legislation

Biodiversity Conservation Act 2016

Environmental Planning and Assessment Act 1979

Environmental Planning and Assessment Regulation 2000

Environmental Protection and Biodiversity Conservation Act 1999

Penrith Local Environmental Plan 2010

Protection of the Environment Operations Act 1997

Roads Act 1993

State Environmental Planning Policy No. 33 - Hazardous and Offensive Development

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (State and Regional Development) 2011

Waste Avoidance and Resource Recovery Act 2001

Signature Page

Golder Associates Pty Ltd

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Principal Environmental Planner

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APPENDIX A

Preliminary Risk Register

Identified Risk	Description	Unmitigated Risk
Traffic and Transport	Increase in traffic congestion and reduced network efficiency during construction	Medium
	Increase in traffic congestion and reduced network efficiency during operation due to increased site activities.	Medium
	Accidents occurring on site as a result of increased interaction between heavy and light vehicles and plant due to increased site activities.	Medium
Waste management	Receipt of non-conforming wastes at the Site not permitted to be handled.	Medium
	Unplanned disruption to operations resulting in large quantities of residual waste from waste processing being stored on site.	Medium
Noise and Vibration	Noise and vibration impacts on the amenity of sensitive receivers during construction and operation.	Medium
Landscape and Visual	Road user and sensitive receivers' views are permanently altered during construction and operation. While the Site is partially located on land identified as scenic protection zone, and mapped as RE1 Public Recreation, this land is identified as part of the Outer Sydney Orbital Corridor and as such will likely result in the rezoning in the near future.	Medium
Soils and Geology	Soil erosion due to operation and construction activities.	Medium
	Contamination of soil as a result of uncontrolled release of leachate or waste waters from processing activities during operation.	Medium
	Contamination of soil as a result of uncontrolled release of fuel from fuel storage tank or refuelling area.	Medium
Water Quality and Hydrogeology	Sediment laden runoff during construction and operation.	Medium

Identified Risk	Description	Unmitigated Risk
	Contamination of surface water or groundwater as a result of uncontrolled release of waste waters from processing activities.	Medium
	Flooding impacts from development of the site.	Medium
Air Quality and Greenhouse Gas	Increased vehicle and plant emissions increasing contribution to greenhouse gas emissions during construction and operation.	Medium
	Dust from construction and operations reducing local air quality.	Medium
	Odours from waste during operations affecting sensitive receivers.	Medium
Hazardous and Dangerous Goods Storage	Use and storage of potentially hazardous and dangerous goods result in spillage and/or contamination.	Medium
Bushfire	Increased potential for bushfire hazard.	Medium
Biodiversity	Potential impact upon fauna and flora biodiversity at the Site and surrounding area.	Low
Social	Potential changes in market and property values due to development of the Project	Low
Cultural Heritage	Impacts to unanticipated heritage items during construction.	Low

APPENDIX B

Important Information Relating to this Report

The document ("Report") to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd ("Golder") subject to the important limitations and other qualifications set out below.

This Report constitutes or is part of services ("Services") provided by Golder to its client ("Client") under and subject to a contract between Golder and its Client ("Contract"). The contents of this page are not intended to and do not alter Golder's obligations (including any limits on those obligations) to its Client under the Contract.

This Report is provided for use solely by Golder's Client and persons acting on the Client's behalf, such as its professional advisers. Golder is responsible only to its Client for this Report. Golder has no responsibility to any other person who relies or makes decisions based upon this Report or who makes any other use of this Report. Golder accepts no responsibility for any loss or damage suffered by any person other than its Client as a result of any reliance upon any part of this Report, decisions made based upon this Report or any other use of it.

This Report has been prepared in the context of the circumstances and purposes referred to in, or derived from, the Contract and Golder accepts no responsibility for use of the Report, in whole or in part, in any other context or circumstance or for any other purpose.

The scope of Golder's Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

At any location relevant to the Services conditions may exist which were not detected by Golder, in particular due to the specific scope of the investigation Golder has been engaged to undertake. Conditions can only be verified at the exact location of any tests undertaken. Variations in conditions may occur between tested locations and there may be conditions which have not been revealed by the investigation and which have not therefore been taken into account in this Report.

Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder's affiliated companies or the employees, officers or directors of any of them.

By date, or revision, the Report supersedes any prior report or other document issued by Golder dealing with any matter that is addressed in the Report.

Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification

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