wildenvironment
environmental planning and management solutions

Environmental Impact Statement

July 2020

halgan pty ltd

Proposed Liquid Waste Treatment Facility
10 Davis Road, Wetherill Park
Halgan Liquid Waste Solutions

Wild Environment Pty Ltd
Level 1, 85 Annandale NSW 2038
PO Box 66, Annandale NSW 2038

STATEMENT OF VALIDITY

Prepared under Section 4.12 (8) of the Environmental Planning and Assessment Act 1979. Schedule 3 of the Environmental Planning and Assessment Regulation 2000. Environmental Impact Statement prepared by Wild Environment Pty Ltd.

Application Number	SEAR 1483	
Project Name	Halgan Liquid Waste Treatment Facility	
Development	Fit-out and operation of a liquid waste treatment facility processing 50,000 tonnes per annum (tpa) of grease trap waste.	
Location	10 Davis Road, Wetherill Park. NSW 2164 - Lot 603 in DP 260618 in the Fairfield City local government area.	
Applicant	Halgan Pty Limited	
Date of Issue	22 July 2020	
Signature		
Name	Andrew Wild	Glenn Horne
Title	Principal Environmental Engineer	Operations Manager
Company	Wild Environment Pty Ltd	Halgan Liquid Waste

SUMMARY

Halgan is an established Australian company with a strong market presence manufacturing wastewater treatment equipment. Halgan has recently expanded its Sydney presence with the lease of a new facility at 10 Davis Road, Wetherill Park NSW 2164.

Halgan is proposing treatment of 50,000 tonnes per annum (tpa) of liquid grease trap waste (K110) in a dedicated new area within the existing building. Residual waste would be transported off site to approved organic reuse or recycling facilities.

This Environmental Impact Statement (EIS) has been prepared to support the development application, and in accordance with the Secretary's Environment Assessment Requirements (SEAR Number 1483) issued by NSW Department of Planning, Industry and Environment (DPIE).

The Proposed Site

10 Davis Road, Wetherill Park is a 3,820 square metre (sqm) site (Lot 603/260618) and zoned *General Industrial*. The site is located near major arterial roads -The Horsely Drive, Elizabeth Drive and Reconciliation Road.

The site has two driveways, parking for approximately 26 cars, an existing 1,400 sqm building with clear span, dual-access roller doors, and existing administration/office facilities.

Wetherill Park is an established industrial area which permits a wide range of manufacturing activities on a 24/7 basis, providing they are *not hazardous or offensive*. Adjacent land uses are light and heavy industrial, including manufacturing, fabrication, transport, waste treatment/transfer stations, recycling (e.g. Cleanaway, SUEZ), and chemical plants.

The Proposed Operation

Purpose-built small grease trap waste tankers would collect grease trap waste from customers and transport to site. Unloading, treatment and load-out would be carried out within the existing building.

Operations would be primarily from 4am to 4pm Monday to Friday (excluding public holidays), although approval is requested for 24/7 operations, 52 weeks per year, in order to cater for emergency contingencies and ameliorate traffic congestion.

The tanker fleet will be licenced by Sydney Water (Waste Safe) for transport of grease trap waste (Category 1 trackable waste).

Operations would generate negligible noise or air emissions beyond the site with effective treatment and mitigation. Unloading and treatment operations would be carried out within a bunded, confined area under negative ventilation, with a best-practice scrubber system discharging extracted and treated air to the atmosphere.

The existing building is well-suited to the existing Halgan operations and proposed treatment operations, with minor structural modifications required. Construction will primarily comprise new solid internal walls, bunds, installation of storage tanks and physical separation treatment scrubber units, pipework and electrical/control systems, and commissioning.

Approximately eighteen (18) staff will be employed in total, with five (5) dedicated to the liquid waste operations. No off-site staff parking will be required, as ample parking is available on-site, including disabled and visitor parking, to comply with existing Consent and Council DCP requirements.

Existing facilities would be used for office requirements and amenities. All treated water will be discharged to sewer via a Sydney Water Trade Waste Agreement.

The site is zoned IN1 - Industrial and leased on a long term (5 +5 year) basis and has a current consent (DA 578/2006) for *"storage and general warehousing of cement bags and related building products".*

The Proposal is defined as designated development and requires an EIS to be prepared to address all requirements of the SEARs. The Proposal will be assessed by Fairfield City Council and determined by Sydney Western City Planning Panel under Part 4 of the EP&A Act. The Proposal is also defined as integrated development as it is a scheduled activity and will require a licence from the NSW EPA.

Three changes have been made by Halgan to the proposed development since initial consultation with Council in late 2019:

1. Manufacturing of plastic treatment tanks by heat-treatment has been halted, as consultation with Fairfield City Council determined that manufacturing was not consistent with the site's current consent.

   Halgan manufacturing will now be carried out at its Crestmead facility in Queensland. Consent for manufacturing at 10 Davis Road, Wetherill Park may be sought in the future, and for this reason the concept design, assessment, and studies for this EIS have considered the future cumulative impacts of both liquid waste treatment and potential manufacturing;
2. Liquid waste trucks will now enter the site from Davis Road and exit from the building onto Elizabeth Street. This change resulted from a review of the layout within the existing building, and early findings of the Traffic Assessment. It is considered that this change, and re-configuration of the proposed layout within the building, have optimised the proposed operation and reduced impacts;
3. The proposed acceptance of fire wash waters (N140), waste oils (J100), oily waters (J120), groundwaters (Z140), and drilling mud/muddy waters (no code) has been deleted from the proposed development. The total volume of liquid waste proposed to be accepted and treated remains at 50,000tpa, however this would fully comprise liquid grease trap waste (K110).

Assessment Process

Environmental risk assessment has been carried out for operation of the proposed development. The following specialist studies were carried out and concluded:

- Air quality assessment - to optimise air quality design and equipment selection, and to predict potential odour and amenity impacts. With the inclusion of a comprehensive air collection and treatment system, all relevant NSW EPA requirements would be met, and no adverse impacts are anticipated;
- Traffic, access, and parking analysis - to assess impacts on local roads, parking requirements, site access and internal manoeuvrability. The study concluded that all

relevant Fairfield City Council and Transport for NSW requirements would be met, and no adverse impacts are anticipated on neighbours or the local area. Ample parking and access are available at the site;

- Acoustic Study - to model likely noise and vibration generation and impacts on surrounding land uses. The Proposal readily complies with requirements and would have negligible, if any, impacts on neighbours or residential areas;
- Stormwater and Flood Assessment Plan - as Wetherill Park is within Council's flood-risk zone, and the part of the site is within a medium-risk area of local overland flooding. The site was surveyed, compared to the predicted flood levels, and measures developed to manage risk to operations, access and adjoining properties etc. A Flood Management Plan was prepared as required by Council's Development Control Plan (DCP), including evacuation plans in the event of a flood. The proposed facility has been designed so that it will not be impacted by flood events or cause off-site impacts.

Key operational documents provided include Fire Safety Schedule and draft Pollution Incident Response Management Plan. All operational environmental management plans will be updated prior to commissioning and submitted as part of the application for the facility EPA Licence and Occupancy Certificate.

Environmental assessment concludes that the proposed changes would have negligible environmental and community impact, and no adverse impacts on neighbouring land uses. The changes are concluded to be consistent with all planning instrument requirements and would enable greater recycling within the Smithfield-Wetherill Park Industrial Estate and across Sydney.

The project has been assessed in terms of the principles of ecologically sustainable development, as required by legislative and Halgan's policy requirements. The proposed changes to the facility are concluded to be justified in terms of the principles of ESD and in social, economic, and environmental criteria, and will:

- Provide greater treatment and recycling capability for grease trap waste and oily water in the growing Sydney metropolitan market;
- Provide benefits to the community and environment through the encouragement of recycling and cleaner production techniques;
- Be compatible with current and future land use in the Wetherill Park Industrial Estate;
- Provide employment during construction and ongoing operations.

The proposed development is also concluded to fully comply with all legislative, statutory and policy guidelines of NSW Government, NSW EPA, and Fairfield City Council.

END OF SUMMARY

TABLE OF CONTENTS

LIST OF APPENDICES

[page left blank]

1. INTRODUCTION

1.1 BACKGROUND

This EIS has been prepared by Wild Environment Pty Ltd on behalf of Halgan Liquid Waste Solutions Pty Ltd (Halgan) to support the development application for the proposed liquid waste treatment facility (Lot 603/DP 260618) at 10 Davis Road, Wetherill Park NSW 2164. The site is located in the Smithfield-Wetherill Park Industrial Estate, south of the Prospect Reservoir. **Figure 1.1** shows the site location:

Figure1.1: Site Location of Lot 603/DP 260618

1.2 OUTLINE OF THE PROPOSAL

Halgan has recently relocated from Brookvale with the lease of a new site at 10 Davis Road, Wetherill Park. The existing building is currently used for storage and distribution of plastic water treatment tanks units, and administration/sales/technical support within the existing office facilities at the site.

Halgan is proposing treatment of 50,000 tpa of liquid grease trap waste (K110) in a dedicated new area within the existing building. Treated residues would be transported off site to approved organic recycling applications.

Operational hours for unloading, treatment and load-out would be carried out within the building. Operations would be primarily from 4am to 4pm Monday to Friday, although approval for operations 24/7, 52 weeks per year will be sought in order to cater for industry emergency contingencies.

The tanker fleet would be licenced by Sydney Water (Waste Safe) for transport of Category 1 waste - this has not been included within this EIS.

Operations would generate negligible noise or air emissions beyond the site with effective treatment and mitigation. Unloading and treatment operations would be carried out within a bunded, confined area with managed ventilation, with a best-practice scrubber system discharging extracted and treated air to the atmosphere.

The existing building is well-suited to the proposed manufacturing and treatment operations, with minor structural modifications required. Construction will primarily comprise of new solid internal walls, bunds, installation of storage tanks and physical separation treatment scrubber units, pipework and electrical/control systems, and commissioning.

Approximately eighteen (18) staff will be employed, including five (5) new staff as part of the proposed development. No off-site staff parking will be required, as the ample parking is available on-site, including disabled and visitor parking, to comply with Council DCP requirements. Existing facilities would be used for office requirements and amenities. Treated water will be discharged to sewer in accordance with a Sydney Water Trade Waste Agreement.

1.2.1 Changes to Proposed Development

Three changes have been made by Halgan to the proposed development since initial consultation with Council in late 2019:

- Manufacturing of plastic treatment tanks by heat-treatment has been halted, as consultation with Fairfield City Council determined that manufacturing was not consistent with the site's current consent. Halgan manufacturing will now be carried out at its Crestmead facility in Queensland. Consent for manufacturing at 10 Davis Road, Wetherill Park may be sought in the future, and for this reason the concept design, assessment, and studies for this EIS have considered the future cumulative impacts of both liquid waste treatment and potential manufacturing;
- Liquid waste trucks will now enter the site from Davis Road and exit from the building onto Elizabeth Street. This change resulted from a review of the layout within the existing building, and early findings of the Traffic Assessment. It is considered that this change, and re-configuration of the proposed layout within the building, have optimised the proposed operation and reduced impacts;
- The proposed acceptance of fire wash waters (N140), waste oils (J100), oily waters (J120), groundwaters (Z140), and drilling mud/muddy waters (no code) has been deleted from the proposed development. The total volume of liquid waste proposed to be accepted and treated remains at 50,000tpa, however this would fully comprise liquid grease trap waste. This change resulted in the proposal, which had previously triggered the threshold for State Significant Development (SSD), being redefined as designated development, although the SEARs (including Agency and Council requirements) were unchanged.

1.2.2 The Proponent

The proponent is Halgan Liquid Treatment Pty Ltd (Halgan), a privately-owned company trading for more than twenty years. Halgan is an established Australian company with a strong market presence manufacturing liquid waste treatment equipment for the industrial and commercial market in Brisbane, Sydney, and Melbourne.

Over the past twenty years, Halgan has manufactured a wide range of treatment units including grease traps, stormwater tanks and rainwater tanks etc. using heat-treatment plastic (roto-moulding) to provide equipment that is lightweight, durable, and sustainable. For further information on Halgan's services refer to the web site at www.halgan.com.au.

1.2.3 Need for Proposed Development

Rapid population growth in the Sydney metropolitan area, and the increasing popularity of restaurant/takeaway/home-delivery meals, has resulted in an increase in the number of commercial kitchens.

Since Sydney Water introduced stringent discharge requirements in the 1990's to restrict the discharge of oils to the sewer system, the volume of grease trap waste requiring collection and treatment has grown rapidly.

The proposed development would increase the treatment capacity in Sydney to meet the changing waste market safely and sustainably, and increase recycling for beneficial reuse, generally by land application.

Treated water for discharge to the sewer system will be in accordance with a Sydney Water Trade Waste Agreement.

The proposed development is described in detail in **Section 5** of this EIS.

1.2.4 Project Schedule

Subject to planning and other approvals, construction and installation of the plant and equipment would be carried out over a three-month period.

Commissioning and optimisation would then take approximately one month, during which all management plans and procedures would be reviewed and updated if necessary. Operations would commence following the issue of the Occupancy Certificate and NSW EPA Licence.

1.3 OBJECTIVES OF THE DEVELOPMENT

The primary objective of the proposed development would be to provide improved capability to treat and beneficially reuse grease trap waste for the growing Sydney market.

1.4 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The proposed changes to the facility will be assessed under Part 4 of the *Environmental Planning & Assessment (*EP&A*) Act, 1979*.

The premises are located within the Smithfield-Wetherill Park Industrial Estate, and the site is zoned IN1 – General Industrial under Fairfield Local Environmental Plan (LEP) 2013. The proposed development is consistent with the currently approved land use and zoning and is permissible with consent.

The site and proposed development will be assessed with regard to Fairfield City Wide Development Control Plan (DCP) 2013. Consistency with these planning instruments is detailed in **Section 2** of this EIS.

The site has a current planning Consent (DA 578/2006) for "*storage and general warehousing of cement bags and related building products*". This is consistent with its current use for storage and general warehousing of plastic water treatment units. Consideration will be given in the future to seeking consent for manufacturing of the plastic tanks in the existing building, subject to Council approval.

The Proposal would be defined as designated development because, pursuant to *EPA Regulation* (2000) Schedule 3 (clause 32) (1c), the development would be a "*waste management facility or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste .. more than 5,000 tpa of liquid organic materials".*

The Proposal will be assessed by Fairfield City Council and determined by Sydney Western City Planning Panel under Part 4 of the EP&A Act. The Proposal is also defined as integrated development as it is a scheduled activity and will require a licence from the NSW EPA.

Halgan sought Secretary Environmental Assessment Requirements (SEARs) from DPIE to set out the requirements for the Environmental Impact Statement (EIS). The SEARs were issued in July 2020 (refer **Appendix A)**.

The development would be a scheduled activity and defined as integrated development pursuant to Schedule 1 of the *Protection of the Environment (Operations)* Act (1997). A Licence from the NSW Environment Protection Authority (EPA) would be required.

The assessment concludes that there are no actions that could have a significant impact on matters of National Environmental Significance, hence it is considered that there are no additional approvals required under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999.*

The EIS assesses the cumulative impacts of the existing site operations and the proposed changes, and all relevant policies and statutory instruments.

2. ASSESSMENT AND APPROVAL PROCESS

The environmental and planning framework relevant to the proposed development can be categorised into three areas and discussed below:

- ***Development consent framework*** governs the consent process and generally derived from the EP&A Act;
- ***Environmental planning instruments and strategy documents*** establish the matters for consideration for assessment of the Proposal;
- ***Environment protection legislation*** determines the specific environmental approvals required for the Proposal.

2.1 DEVELOPMENT CONSENT FRAMEWORK

2.1.1 Environmental Planning and Assessment (EP&A) Act 1979

Development consent is required under Part 4 of the EP&A Act if an environmental planning instrument states that a project is permissible with development consent (refer to **Section 2.2.1.1** for a description of the permissibility of the proposed development under the Fairfield Local Environmental Plan 2013).

The EP&A Regulation (2000), Schedule 3, Clause (2) (i), states that plastics industries are defined as designated development if they:

1. *manufacture more than 2,000 tpa of synthetic plastic resins, or*
2. *reprocess more than 5,000 tpa of plastics per year otherwise than by a simple melting and reforming process.*

This EIS seeks consent for treatment of liquid waste. Consent for manufacturing at 10 Davis Road, Wetherill Park may be sought in the future, and for this reason the concept design, assessment, and studies for this EIS have considered the cumulative impacts of both liquid waste treatment and potential manufacturing in the future.

The Proposal is defined as designated development because, pursuant to *EPA Regulation* (2000) Schedule 3 (clause 32) (1c), the development would be a "*waste management facility or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste .. more than 5,000 tpa of liquid organic materials".*

Halgan sought SEARs from DPIE to set out the requirements for the EIS (refer SEARs No. 1483 in **Appendix A**). The Proposal will be assessed by Fairfield City Council and determined by Sydney Western City Planning Panel under Part 4 of the EP&A Act. The EIS must also meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 of the *EP&A Regulation (2000).*

2.1.2 Integrated Development

The proposed development is defined as a scheduled activity pursuant to Schedule 1 of NSW *Protection of the Environment Operations* (POEO) 1997 Act, requiring concurrence approval from NSW EPA. An environment protection licence will be required for operation of the facility and the proposed development considered integrated development in accordance with section 91A of the *EP&A Act.*

2.2 ENVIRONMENTAL PLANNING INSTRUMENTS AND STRATEGY DOCUMENTS

Under the *EP&A Act*, land development is subject to local, regional, and state planning instruments, as outlined below.

2.2.1 Local Planning Instruments

2.2.1.1 Fairfield Local Environment Plan (2013)

The subject land, Lot 603/DP 260618, is zoned General Industrial Zone IN1 in accordance with Fairfield LEP 2013. The objectives of the zone and how the development meets those objectives are set out in **Table 2.1** below:

Table 2.1: Consistency with Objectives of LEP 2013, General Industrial Zone IN1

Objective	Consistency with Objective
To provide a wide range of industrial and warehouse land uses.	Proposed development is consistent with existing and permissible land uses within zone and surrounding areas. A broad range of industrial employment opportunities are encouraged by facilitating beneficial reuse of resources for reprocessing.
To encourage employment opportunities.	Consistent with objective: will encourage employment directly (at facility) and indirectly in related service businesses.
To ensure development is not likely to detrimentally affect the viability of any nearby business centre.	No impact.
To minimise any adverse effect of industry on other land uses.	Previous operations and assessed impacts of change conclude no adverse impacts on other land uses.
To support and protect industrial land for industrial uses.	Maintains valuable industrial use on existing site, with no adverse impacts on surrounding industrial lands.

The proposed changes to the existing facility are considered to comply with these definitions and should therefore be permissible with consent.

The General Industrial Zone IN1 also prohibits hazardous and offensive industry. The EIS demonstrates that, with appropriate mitigation measures, there will be no adverse odour, noise, or amenity impacts, and therefore that the Proposal is not hazardous or offensive.

There are no LEP principal development standards (e.g. lot size, height, FSR etc.) controls relating to the site, and in any case, the envelope of the building will not be

altered. The land has no heritage items located on or near it, is not within a potential acid sulphate soil area, riparian area, or bush fire risk area.

Council has identified the site as having a medium risk of overland flooding, which is assessed within this EIS process, and an appropriate Flood Management and Evacuation Plan has been developed.

2.2.1.2 Fairfield City Wide Development Control Plan 2013

Fairfield City Wide Development Control Plan (DCP) 2013 provides detailed guidelines and standards that must be considered for all new development. Particular elements of the DCP of relevance to the proposed development include:

1. Environmental Site Analysis (DCP Chapter 3**)**, specifically the requirements for submitting a DA and an outline of information to be included in an EIS;
2. Development Control for Industrial Development (DCP Chapter 9), Guiding Principles for the Development. Also EIS **Table 2.2**;
3. Flood Risk Management (DCP Chapter 11). Also EIS **Table 2.2**;
4. Car Parking, Vehicle & Access Management (DCP Chapter 12). Also EIS **Table 2.2.**

Table 2.2: Fairfield City Wide DCP 2013 Relevant Provisions

Provision	Consideration	Outcome
9.2 Car parking, vehicle & access management	Refer to: • TfNSW requirements for transport and accessibility, and relevant assessment guidelines. • Fairfield City Council requirements for car parking and vehicular site access.	Refer to **Section 6.6** and **Appendix H.** Assessment concludes the Proposal fully complies.
9.4 Streetscape & amenity	Hours of operation, if more than 500m from residential areas, to be considered based on Acoustic Report.	More than 500m from residential areas. Also refer **Section 6.5** and **Appendix G.**
Chapter 11	Part of the Land identified by Council to be at within a medium-risk overland inundation zone (S149 Certificate). Refer also SEARs for DPIE Climate Change & Sustainability, EPA, and Council requirements.	Flood Risk Management Plan developed. Refer to **Section 6.2** and **Appendix F.**
12.1.1 Parking Rates	Resource Recovery facility – Merit-based assessment	Traffic/access/parking Study. Refer to **Section 6.6** and **Appendix H.**
12.2 Design Guidelines	Provides detailed design guidelines for car parking.	Proposal includes car parking which complies with the design provisions. Refer to **Section 6.6** and **Appendix H.**

2.2.1.3 Current Development Consent

The site has a current consent (DA 578/2006) for *"storage and general warehousing of cement bags and related building products"* (refer **Appendix C**). A comparison of how existing consent conditions to the current use and proposed development is set out in **Table 2.3**.

Table 2.3: Comparison of Proposal with Existing Development Consent

Summary of Condition		Existing Use	Proposed Use
1	Compliance with approved plans 578/2005: 1/2-2/2	Complies	Proposal within existing approved building
2	Davis Rd driveway to be widened to a minimum 8 metres to enable B-double satisfactory access	Complies	Will comply
3	Vehicular Crossing Application	N/A	Will comply
4-7	Prior to Construction/Operation	N/A	Will comply
8	Carparking: 31 off-street car spaces shall be provided. One off-street disabled carpark. To be marked and maintained	Complies	Refer Section 6.6 and Appendix H.
9	Deliveries: ▪ all vehicles enter and exit in forward direction ▪ B-doubles and 12m rigid semi-trailers to be used for servicing and operations ▪ All loading and unloading to be done on site, not on public roads ▪ All loading & unloading to be done within building	Complies	Will comply
10	Operational Hours: 6.00am to 5.30pm	Complies	24/7 operation requested
11	Advertising Signs subject to development consent	Complies	Will comply
12	Use of Premises: no retail to general public. Site to be clean/ tidy	Complies	Will comply
13	Storage of Goods: all works/ storage to be within building	Complies	Will comply
14	Noise and Vibration: Use of premises shall avoid unreasonable noise to adjoining and nearby occupations	Complies	Will comply
15	Lighting: shall not impact on amenity of occupants of adjacent or nearby premises	Complies	Will comply
16	Public Address System: shall not emit offensive noise on any public place	Complies	Will comply
17	Trafficable bunds: shall be installed to all exits from building to prevent pollutants entering stormwater system	Complies	Will comply
18	Storage of Flammable and Combustible Liquids shall be in accordance with AS1940 – 2004	Complies	Will comply
19	Waste Receipts: permanent record of both liquid and solid waste removed from site to be maintained and made available upon request	Complies	Will comply

2.2.2 State and Regional Plans

State Environmental Planning Policies

Consideration has also been given to relevant State Environmental Planning Policies (SEPPs) and Plans including:

- SEPP (Infrastructure) 2007
- SEPP No. 33 - Hazardous and Offensive Development
- SEPP No. 55 - Remediation of Land
- SEPP (Western Sydney Parklands) 2009
- NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014-2021
- A Plan for Growing Sydney 2014

SEPP (Infrastructure) 2007

Under the Infrastructure SEPP, Zone IN1 General Industrial is a prescribed zone in accordance with Clause 120. This clause identifies a resource recovery facility as:

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

In addition, a resource recovery facility is defined as a type of waste or resource management facility under the following definition:

"A waste or resource transfer station, a resource recovery facility, or a waste disposal facility."

Clause 121 of the Infrastructure SEPP states:

"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."

The proposed development is therefore in accordance with Clause 121 of the Infrastructure SEPP and therefore permissible with consent.

In addition, Clause 104, in conjunction with Schedule 3, of the Infrastructure SEPP identifies resource recovery or waste transfer stations of any size or capacity as being traffic generating activity under Column 1 of Schedule 3. The provisions of this SEPP require the consent authority to give written notice of the development application and consider any responses received from the consent authority, in this case Transport for NSW.

SEPP No. 33 - Hazardous and Offensive Development

SEPP 33 provides definitions for 'hazardous industry', 'hazardous storage establishment', 'offensive industry' and 'offensive storage establishment'. The definitions apply to all planning instruments, both existing and future. The policy also requires specified matters that are defined in the policy as 'potentially hazardous' or 'potentially offensive', to be considered for proposals.

An assessment of the proposed development was undertaken using the methodology in *Applying SEPP 33, Hazardous and Offensive Development Application Guideline*. The guidelines include a threshold screening test used to determine whether a development is potentially hazardous. The proposed changes were assessed as follows:

- Maximum quantities of dangerous goods do not exceed the screening thresholds for any class of good;
- The transportation screening thresholds are not exceeded;
- The development therefore does not fall within the definition of potentially hazardous industry.

The proposed changes have the potential to emit polluting discharges (primarily odour) that would cause a level of offence in the absence of control measures.

However, an air quality / odour assessment study (see **Section 6.4** and **Appendix G**) concluded there would be negligible impacts from the proposed development, odour levels would comply with NSW EPA odour goals, and would not adversely impact neighbouring land uses. With the odour control measures proposed, the development is concluded not to be offensive and should therefore be permissible within the zoning.

Further, public health and safety, and the occupational amenity of neighbouring land uses, will not be impacted by vectors due to extensive and rigorous controls as described in **Section 6.9.**

This EIS therefore concludes that the proposed changes would not exceed the screening test of SEPP 33 as potentially hazardous or offensive.

SEPP No. 55 - Remediation of Land

Changes would be carried out by installation of facilities within existing building. No excavation is anticipated, but should this be required, any waste would be classified in accordance with NSW EPA Guidelines and disposed of to appropriately licenced facilities.

10 Davis Road is not listed on the NSW EPA Contaminated Lands Register (refer **Appendix E**). SEPP No. 55 therefore does not apply to the proposed development.

SEPP (Western Sydney Parklands) 2009

Nearby land to the site is located within the area known as the Western Sydney Parklands and to which the State Environmental Planning Policy (Western Sydney Parklands) 2009 applies. There are no provisions within this SEPP which apply to development adjacent to the parkland sites and therefore the SEPP does not apply to the Proposal development.

NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014-2021

Provides targets for the reduction in waste to 2021 with the objectives of:

1. Avoiding and reducing waste generation;
2. Increasing recycling;
3. Diverting more waste from landfill;
4. Managing problem wastes better;
5. Reducing littering and illegal dumping.

The Strategy includes targets to increase recycling of municipal solid waste, and commercial and industrial waste to 70% by 2021-2022. The proposed facility will assist in meeting this target and is considered to be consistent with the NSW WARR Strategy.

A Plan for Growing Sydney 2014

Action 4.2, Identify and Protect Land for New Waste Management Facilities, identifies that Sydney will require additional waste and recycling infrastructure capacity of:

- 165,000 tpa for municipal (local council) waste and 380,000 tpa for commercial and industrial waste;
- an additional 25 community recycling centres for recycling of household hazardous waste.

The Plan identifies the need for the identification and protection of new locations for waste management infrastructure. The proposed Halgan facility is an example.

2.3 ENVIRONMENTAL LEGISLATION

2.3.1 NSW State Legislation

Protection of The Environment Operations Act 1997

The *Protection of the Environment Operation Act (POEO) 1997* aims to protect, restore, and enhance environmental quality, decrease risks to human health and prevent the degradation of the environment. The Act provides for the regulation of noise, air and water pollution and waste management.

Waste facilities are a scheduled activity under the Act, and as such require an Environment Protection Licence (EPL) from NSW EPA, which set conditions that must be adhered to during operation. Pending assessment, General Terms of Approval will be sought from NSW EPA, and an Environment Protection Licence secured prior to operation of the proposed development.

2.3.2 Commonwealth Legislation

No Commonwealth legislation is considered to be applicable to this Proposal. No vegetation is to be cleared or species impacted by the proposed development.

2.3.3 Other Agency Requirements

Relevant agencies and key stakeholders were consulted during preparation of the Scoping report. NSW DPIE sought requirements from NSW Government Authorities and Fairfield City Council during preparation of the SEARs.

Initial consultation has been carried out with Sydney Water regarding sewer capacity and Trade Waste Agreement requirements. Adequate capacity exists in the local sewer system and no issues are anticipated in meeting discharge requirements.

Initial consultation has also been carried out with Transgrid regarding clearance for works in the vicinity of the overhead easement. No issues are anticipated, and this approval will be secured prior to construction.

2.4 CONCLUSION

All relevant statutory instruments and requirements have been considered in the concept development and assessment of this Proposal. It is considered that all matters have been appropriately addressed where applicable, and that the Proposal fully complies with the objectives and requirements of all relevant statutory instruments.

3. CONSULTATION

Halgan embraces the principles of sustainable development, and actively seeks input and involvement from the wider community. Halgan is committed to early engagement of all interested stakeholders and parties potentially affected by the development, and a consultation strategy has been implemented to provide information and gain feedback.

3.1 CONSULTATION PROGRAM

A list of organisations consulted, and issues raised is provided in **Table 3.1**.

Table 3.1: Stakeholder Consultation and Issues Raised

Organisation Consulted	Date	Comments
Fairfield City Council (pre-DA meeting)	8 Oct. 2019	• Odour, noise, traffic/access, flood assessment reports required • site suitability and permissibility. Verify site manoeuvrability and parking • Demonstrate compatibility between manufacturing and liquid treatment operations • BCA Compliance Statement required prior to Occupation • Verify setback and landscaping (DCP Ch9) • Management plans for plastic bead if used for manufacturing • Fire/SEPP33
Fairfield City Council	27 Mar 2020	• Telephone consultation to discuss how Council comments have been addressed in EIS
Transgrid	2 Oct 2019	• Preliminary consultation for approval to carry out works near overhead powerline easement. No initial objections.
DPIE	30 Oct 2019	• Provided overview and sought feedback • DPIE requested further detail on waste types and operational contingencies • Halgan to review and implement DPIE Major Projects and draft Early Engagement Guidelines • DPIE advised Waiver Applications to be submitted for Aboriginal Cultural Heritage and Biodiversity Assessment • Ongoing consultation carried out during EIS preparation
DPIE	Jan-April 2020	• Regular consultation prior to submission for adequacy review
NSW EPA	15 Nov 2019	• Provided overview to Manager, Hazardous Materials • Sent Scoping Report and meeting request • Met EPA representatives on 10 December 2019
NSW Fire & Rescue (9742 7434)	15 Nov 2019	• Agency will review and respond to EIS
Sydney Water	Sept. 2019	• Sufficient local sewer capacity exists • Trade Waste Agreement will be required, with stringent discharge limits and monitoring
DPIE Climate Change & Sustainability	Feb 2020	• BDAR issued for biodiversity • Consulted by telecon 19 February 2020. No further consultation requested until EIS submitted

3.2 CONSULTATION WITH LANDOWNERS AND SURROUNDING BUSINESS

Halgan acknowledges the need to be a good neighbour and to minimise its footprint while operating a viable recycling operation.

Adjacent businesses have been consulted in early October 2019 to explain the Proposal and seek feedback. No objections were raised at that stage.

Further consultation with businesses was carried out during preparation of this EIS. No objections were raised. Halgan will implement an on-going "good neighbour" policy prior to operation of the Proposal, with continued regular consultation to identify off-site impacts. A copy of the Proposal mail out is provided in **Appendix M.**

Table 3.2: Consultation Contact Details of Surrounding Businesses

Company Name	Company Address
Flame Cut	68 Elizabeth Rd Wetherill Park
Danny Jones Engineering	81 Elizabeth Rd Wetherill Park
Status Paint and Panel (NSW) Pty Ltd	26B Davis Rd Wetherill Park
El Toro Smash Repair Centre	11 Davis Rd Wetherill Park
Safeman Australia	25A Davis Rd Wetherill Park
Cornell Diesel Service	26 Davis Rd Wetherill Park
Excess Technology	26A Davis Rd Wetherill Park
Technology Locker	26B Davis Rd Wetherill Park
Master Kitchens	27 Davis Rd Wetherill Park
Keystone Acoustics	7- 8 Davis Rd Wetherill Park

4. OPTIONS ASSESSMENT

4.1 NEED FOR THE PROPOSAL

4.1.1 Introduction

Prevention of organics and oils from discharge to the sewer system and the broader environment is a well-established and essential principle. This Proposal meets the stated and legislated policies of the NSW Government, Sydney Water and Halgan, in waste avoidance and protection of the environment.

4.1.2 Strategic Fit with State and Regional Initiatives

The proposed changes are consistent with the NSW Government's current waste management framework which focuses on reducing potential hazards to the environment and capturing value from materials that would otherwise be disposed of to landfill, or illegally disposed.

The NSW Government introduced the WARR Act 2001, which considers the potential resource value and future use of materials in accordance with ecologically sustainable development principles.

An exhaustive search was carried out within Sydney to identify the most suitable site for relocation of Halgan's Brookvale operation to cater for longer-term growth and establishment of a liquid waste treatment facility. The site at 10 Davis Rd was selected as it met the search criteria and had the following characteristics:

- Appropriate zoning (IN1-General Industrial);
- Appropriate access and size of site to justify investment;
- Suitable existing building with excellent clearances;
- Strong local employment focus and suitable skill base;
- Ready access to potential markets;
- Excellent access to arterial road network to enable transport of manufactured goods, and treated material to regional NSW for recycling by land application and concentrated oils to specialist recyclers;
- Ample off-street parking; local business synergies for maintenance and supplies;
- Long term lease enabling investment to create industry-best practice operation.

On a local level, the proposed development is consistent with the objectives of Chapter 9: Development Controls for Industrial Development in Fairfield City Council's City Wide DCP (2013), as the Proposal supports and reinforces its recycling and waste management principles.

4.1.3 Benefits to Commercial and Industrial Industries

The proposed development will provide economic and cleaner production advantages for commercial generators of liquid waste through its ability to recycle this waste safely, in a highly accessible and environmentally friendly facility. This material can then go on to be reused for industrial and agricultural purposes.

4.1.4 Conclusion

By reducing environmental harm associated with liquid waste in accordance with ecologically sustainable development principles, the proposal is consistent with NSW Government, Fairfield City Council, Halgan's Corporate Policy and community expectations.

4.1.5 Consequences of Not Proceeding

The principal alternative to the Proposal is a “Do Nothing” scenario, resulting in a growing Sydney market with limited access to additional treatment capacity. Under the “Do Nothing” scenario:

- Further stress would be placed on finite and already limited, treatment capacity;
- Supply of resources for beneficial reuse such as land application, would be reduced;
- Effective management of liquid waste treatment would likely to diminish, and costs increase;
- Community, Government, and regulatory expectations for reducing and recycling waste to create a valuable resource would not be met.

5. DESCRIPTION OF THE PROPOSAL

5.1 SITE LOCATION LAND OWNERSHIP AND SURROUNDINGS

The site is located in the Smithfield-Wetherill Park Industrial Estate on Lot 603/DP 260618, 10 Davis Road, Wetherill Park NSW 2164. This industrial estate is located approximately 35km west of Sydney CBD, south of the Prospect Reservoir. **Figure 1.1** in **Section One** shows the location of the facility and the surrounding land uses.

The site is owned by F.S.G. (HOLDINGS) Pty Ltd, and leased by Halgan under a long-term lease (refer to Certificate of Title in **Appendix B**).

Access to the Smithfield-Wetherill Park Industrial Estate is via Hassall Street, Davis Road, Elizabeth Street and Victoria Street.

Reconciliation Drive provides access to the M4 Motorway. Hassall Street provides wide carriageways and experiences constant traffic flows over extended operating periods.

Hassall Street is well serviced by a number of major roads including The Horsley Drive to the south, the Cumberland Highway to the east and Westlink M7 to the west.

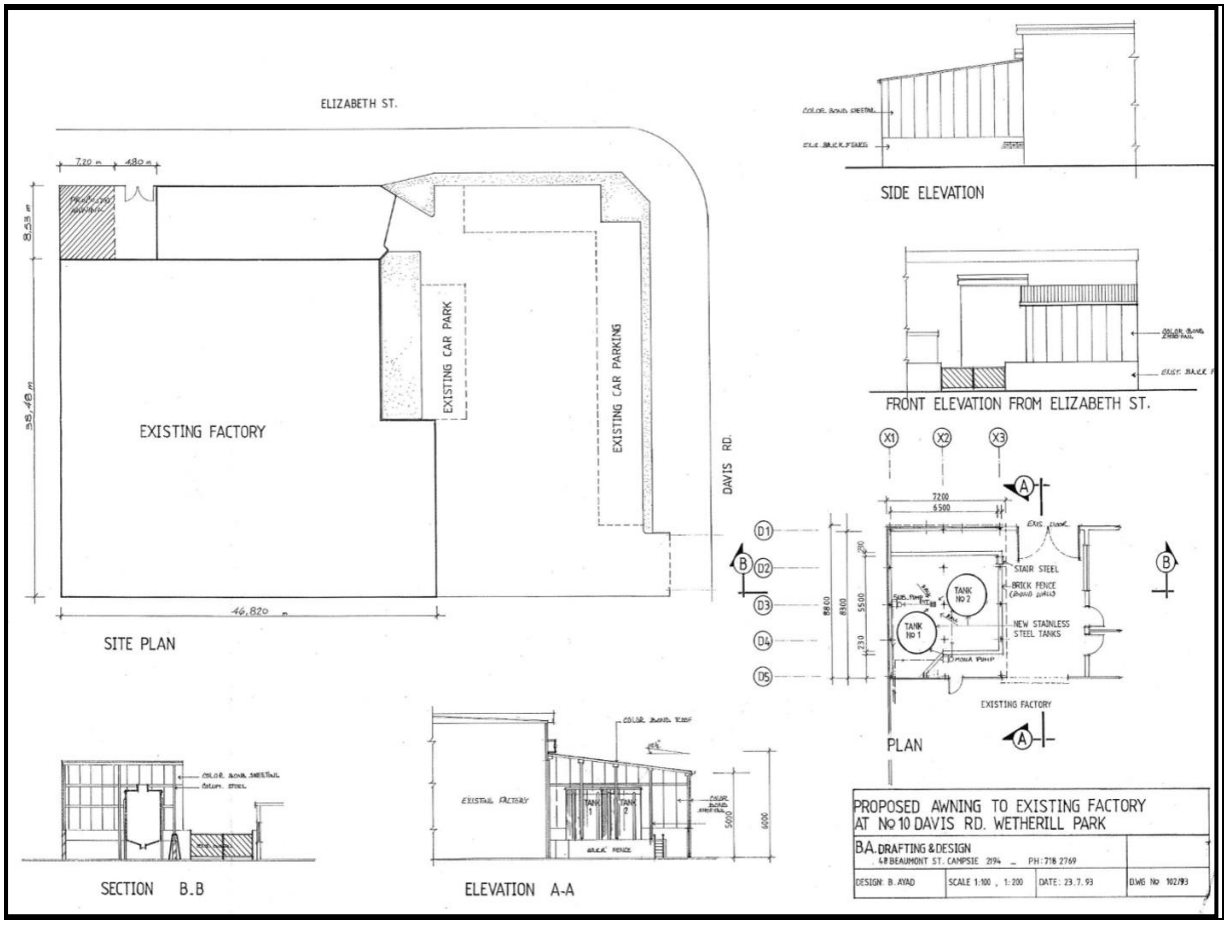
The site is also subject to a 30-metre easement for an overhead power line. TransGrid has advised Council that it also intends to enter into restrictive covenant agreements with owners for a further 15 metres either side of the existing easement. As no external building works are contemplated, approval from Transgrid may only be required for transport of plant into the site during the construction phase, and for potential installation of solar panels.

Adjoining sites are of similar design and use, comprising a mix of light and heavy industries such as cabinet making, panel beating, and engine repair workshops.

Figures 5.1 and **5.2** show an aerial overview and the existing site plan respectively. There will be no change to the footprint, area, or elevation of site buildings as a result of the Proposal.

Figure 5.1: Aerial Overview of Existing Site, Lot 603/DP 260618, 10 Davis Rd, Wetherill Park

Figure 5.2: Existing Site Plan, Lot 603/DP 260618, 10 Davis Rd, Wetherill Park



5.2 DESCRIPTION OF EXISTING FACILITIES

The area of the site is approximately 3,820 sqm, and dimensions approximately 77m by 54m.

Primary access to the site is from Davis Road. There is a wide grassed verge on the western and northern frontages, with several established native street trees.

The existing building is well suited to manufacturing and industrial operations, with a floor area of approximately 1,658 sqm, and dimensions approximately 46m by 38m wide.

The building is of utilitarian design, with 8 metre internal clearances, a concrete slab floor, a steel structure, a galvanised steel roof and concrete panel walls. Access is by roller doors from the main entrance off Davis Road, and secondary egress to Elizabeth Street.

The floor slab of the building is designed to capture all spillages. Dust suppression sprinklers have been installed in the roof and suitable fire protection is in place.

Office facilities comprise approximately 260 sqm, consisting of an adjacent ground-floor administration office, and a mezzanine office overlooking the operational area.

Vehicle parking consists of 29 spaces on the concrete apron fronting the building, which are suitable for both light and heavy vehicles.

Halgan anticipates that in future, subject to assessment and consent, the existing building would also be used for manufacturing plastic tanks for waste treatment, which are transported and sold to businesses in NSW. The southern eastern section of the building has therefore been allocated to the installation of a roto-moulding machine, and north-western section for storage of plastic treatment tanks, as shown in **Figure 5.3.**

The potential plastic moulding process is straight-forward and would comprise the following basic steps:

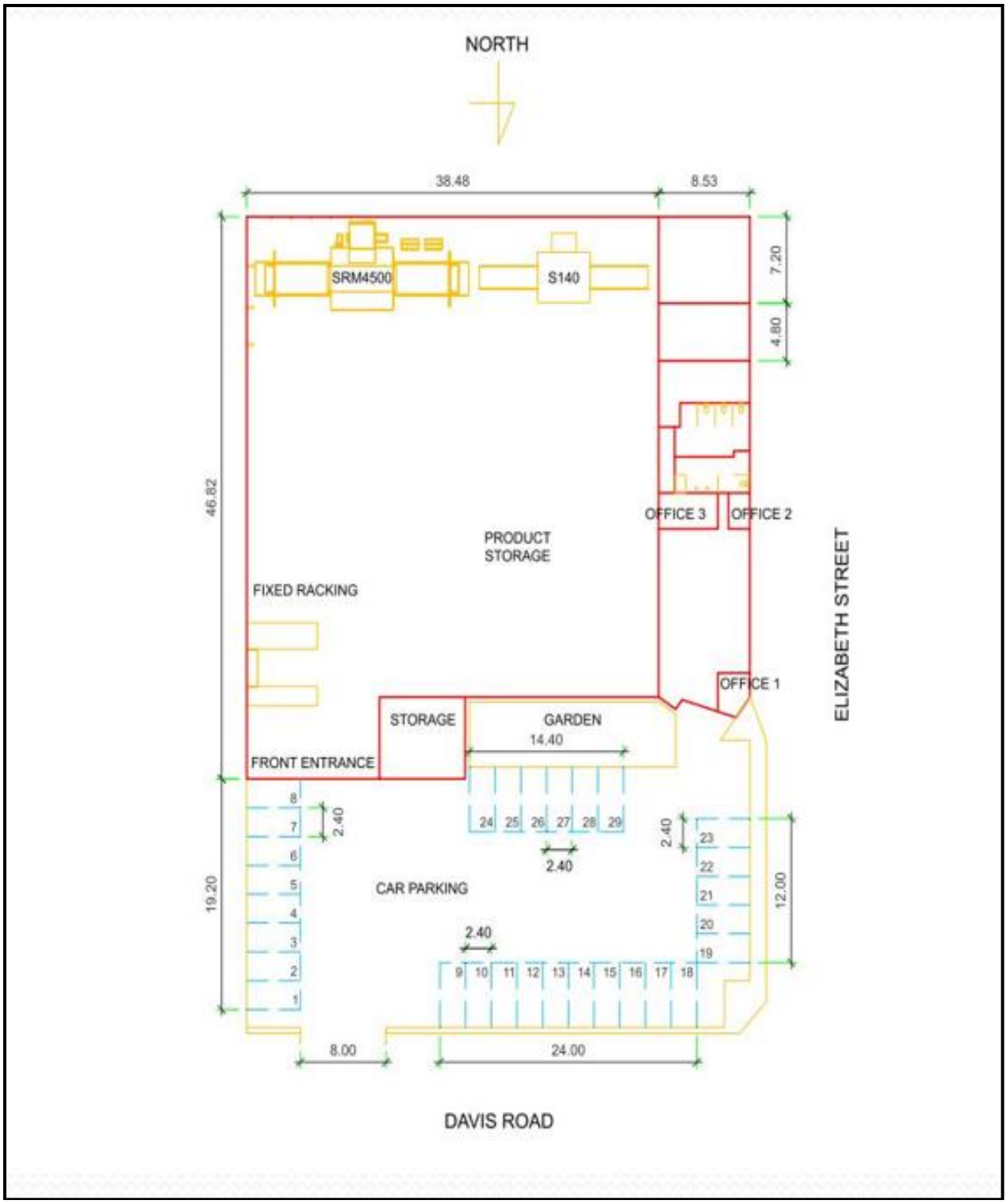
1. Plastic beads would be transported to site and heat-treated (by gas) in a large rotating moulding machine;
2. Formed units would be tested, modified as required and stored in internal racks for short periods;
3. Finished units would be transported by heavy rigid vehicles (HRVs) to distributers, plumbers, and commercial end-users.

This EIS has taken into account, potential future manufacturing in the assessment process, noting that this would be subject to consent and any relevant approvals.

The existing operation is as follows:

- A total of 13 employees: 6 people in the warehouse and 7 people in the office;
- The hours of operation are 7.00am – 4.00pm Monday to Friday (i.e. no weekends or public holidays);
- Current deliveries are 3 to 4 trucks per week which are typically rigid vehicles (trucks) up to 12.5 metres long. These are external transport company trucks and do not have to be parked on the site;
- Halgan has one (1) small rigid truck (6.4 metres long), which it parks on site.

Figure 5.3: Existing Site Layout Showing Storage Areas and Machinery Installation



5.3 PROPOSED FACILITIES AND PROCESSES

The Proposal comprises acceptance and treatment of 50,000 tpa of liquid grease trap waste (K110) * in a dedicated new area within the existing building. Residual waste would be transported off site to approved organic reuse, recycling facilities, or disposal.

* Transport of liquid wastes in Australia is regulated by the *Australian Hazardous Waste Data and Reporting Standard* (2017), developed and adopted by all Australian, state and territory governments. This Standard designates industrial liquid waste codes using National Environment Protection *Movement of Controlled Waste between States and Territories* Measure (NEPM).

5.3.1 Liquid Treatment Waste Process

The dedicated treatment area, shown in **Figure 5.5**, would be designed, built, and operated to receive and store liquid waste streams so they remain separate. This is required to prevent any risk of cross-contamination from treated and untreated waste.

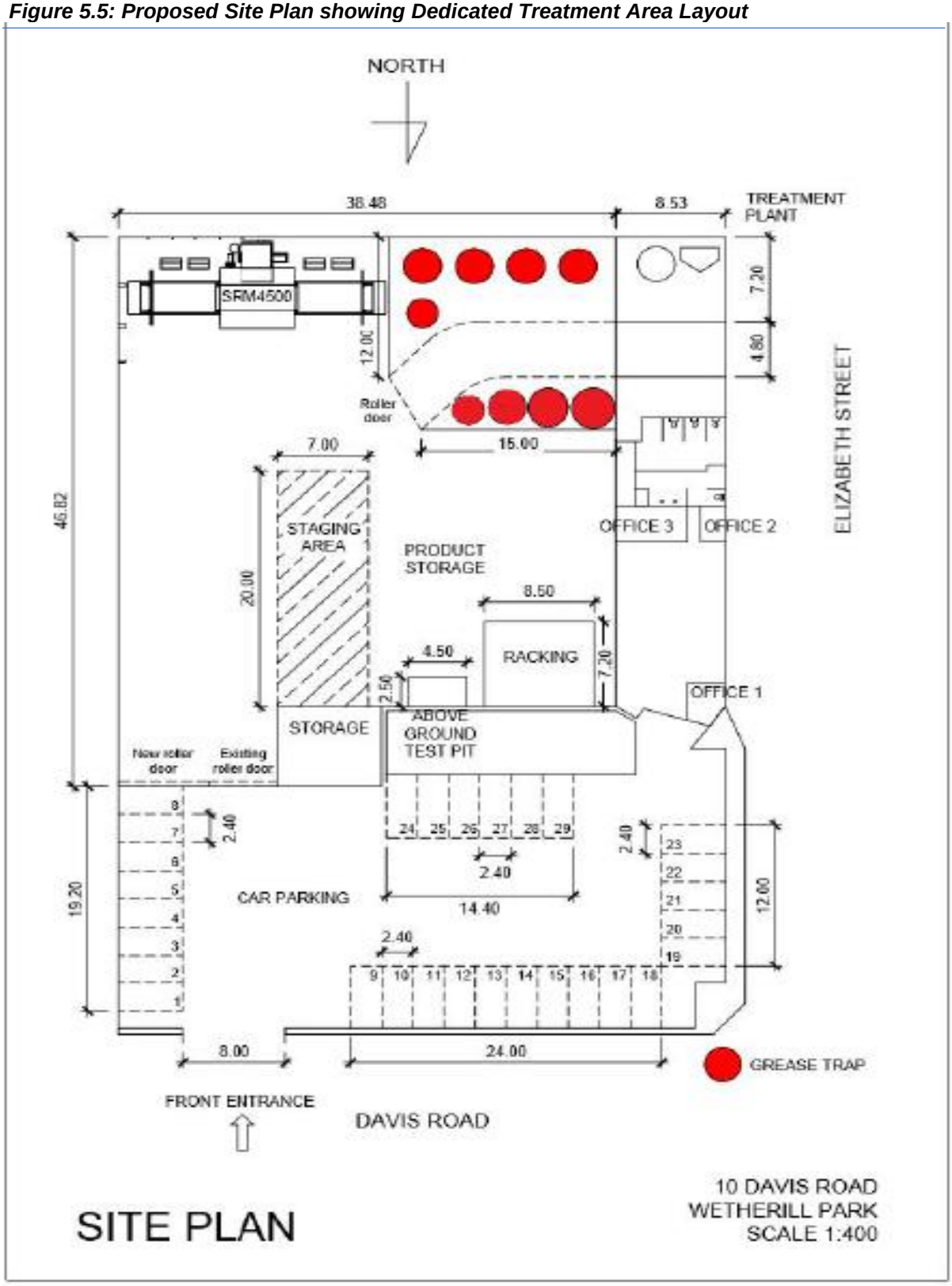
A small fleet of specialised liquid waste tankers would collect liquid waste from businesses and transport to the site. Incoming liquid waste loads would generally be homogenous loads from sources like businesses, restaurants, and supermarkets.

Dedicated trucks would be used for the transport of grease trap waste as shown in **Figure 5.4**. Trucks would be approved by Sydney Water for the transport (only) of grease trap waste.

Figure 5.4: Collection Vacuum Tanker (Grease Trap Waste)

All receival and storage tanks would be hard plumped to eliminate the need for operators to disconnect/connect hoses. Treatment systems will be automated with lock out systems to prevent cross contamination.

Figure 5.5: Proposed Site Plan showing Dedicated Treatment Area Layout



The handling process would entail:

1. Tankers entering the yard in the forward direction by the main Davis Road entrance into a bunded unloading bay within the new enclosed treatment operations area. The roller door will be closed prior to discharge. There would be no queuing of trucks as, in the worst-case scenario, two trucks could wait within the building while one is unloading. Trucks will exit via the existing western roller door onto Elizabeth Street and turn left;
2. Operators activating the automated lock out system. Tankers will discharge under vacuum through a primary screening mechanism into two 20KL receival tanks. Receival tanks will have load cells installed to electronically record loads and volumes. The primary screens will remove any gross solids and contamination, with air ducted to the scrubber;
3. The contents of the receival tanks pumped to storage tanks. All connection lines within the facility will be hard plumbed which will eliminate any leakages and minimise fugitive emissions. All tanks and equipment would be selected, designed, and constructed to comply with AS1940 *Storage and Handling of Flammable and Combustible Liquids* as appropriate, and NSW EPA *Guidelines for Bunding and Spill Management*;
4. Grease trap waste settled for at least 4 hours in accordance with the NSW EPA *Resource Recovery Order – Treated grease trap waste* (*2014*). After settling, the treated water will be pH adjusted, then pumped to the Diffused Air Flotation (DAF) unit for treatment prior to discharge to Sydney Water sewer system. The recovered oil, grease and solids will be separated and sent to storage tanks for lime amendment.

   Approximately 70% of waste will be treated water, which will be tested then discharged to sewer in accordance with the Sydney Water Trade Waste Agreement. After the settled water is removed from the storage tank/s the remaining oil/grease and solids are pumped to a solids-storage tank. The floating layer (oil/grease) will be incorporated into the bottom settled solids layer allowing saponification by the addition of lime. The lime-amended sludge will then be directed to an approved reuse facility approved by the EPA;
5. The entire treatment area being enclosed and subject to odour management. All potentially contaminated air will be treated through the scrubber prior to discharge in accordance with the EPA Licence (refer **Figure 5.6**). The treatment area will be bunded in accordance with EPA Guidelines, and cleaned daily. Any spills will be attended to immediately;
6. Treated product stored separately and removed daily to beneficial reuse, primarily land application for grease trap material. It is anticipated that on average one load per day of each stream will be removed, so that the material is stored on site for less than 24 hours, thereby reducing storage volumes.

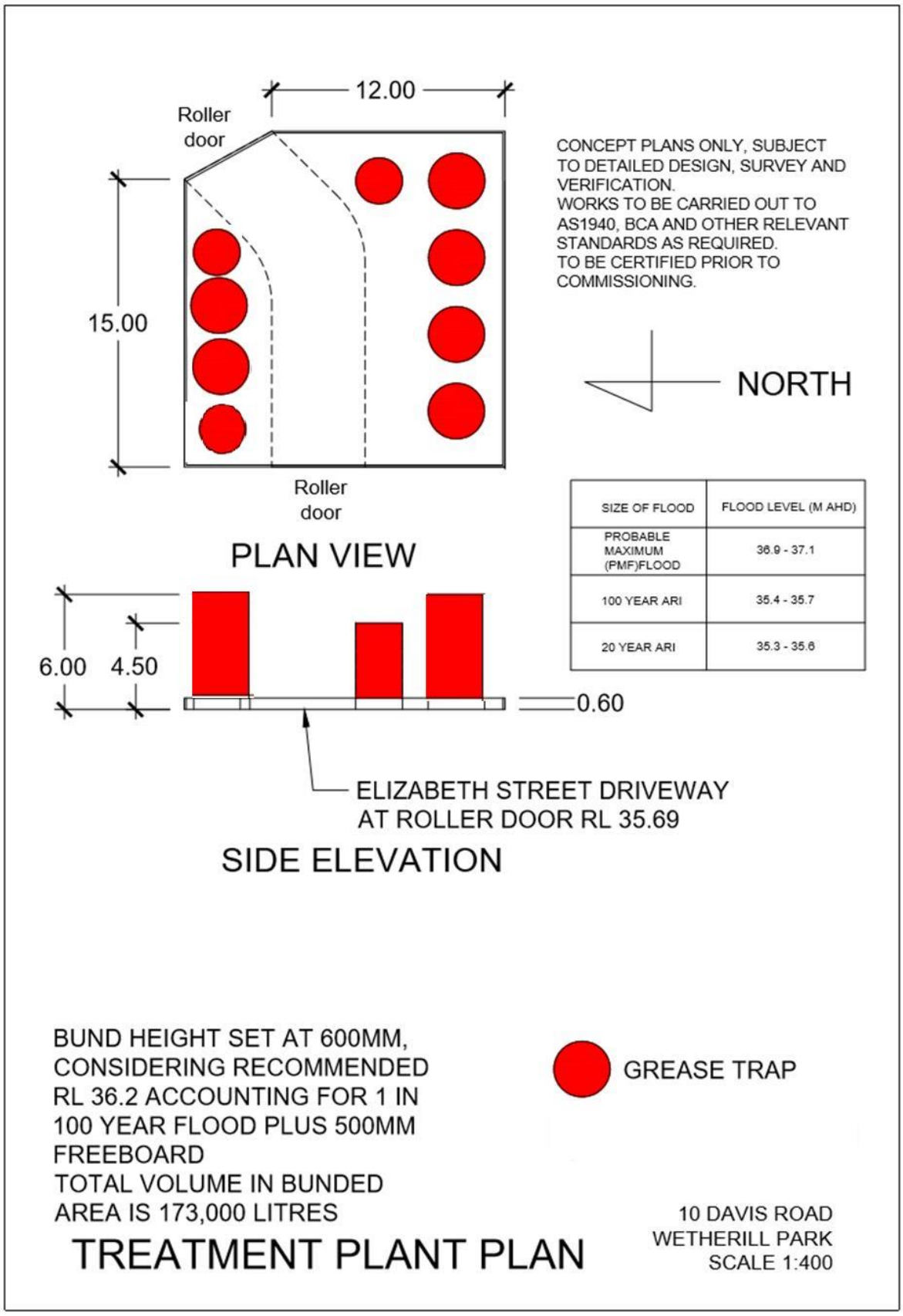
The treatment area (**Figure 5.5**), has been designed to avoid flood risk (refer **Figure 5.7** and **Section 6.2**). The bund volume exceeds the EPA requirements, floor and bund walls will be impermeable, and the facility will be certified to AS1940 and other relevant requirements prior to commissioning.

Technical details of the proposed treatment process are included in **Appendix D,** and operational management measures are further discussed in **Section 7**.

Figure 5.6: Granular Activated Carbon (GAC) Canisters for Air Filtration

This modular system allows all offensive gases to be scrubbed, with additional canisters installed if required.

Figure 5.7: Elevation showing Bund Heights and Predicted Flood Levels



5.3.2 Office and Warehouse Waste Disposal and Recycling

Currently the existing facility disposes of small volumes of packaging waste, paper/cardboard recycling and general solid waste through segregated bins and a commercial waste disposal company.
The proposed changes will result in little change to existing waste management, except during construction when volumes will increase for a short period and be managed in accordance with the Waste Management Plan (**Appendix L**).

5.3.3 Liquid Waste Disposal and Recycling

Details of the liquid waste streams, sources, treatment methods, recycling uses and quality control, as required by the SEARs, are set out below:

1. Grease trap waste means any grease, oils, solids, water, or other matter resulting only from the preparation or manufacturing of food that is collected in a grease trap in the usual course of the grease trap operation.

   This definition includes DAF units used to treat grease trap waste but does not include grease trap waste collected from grease traps in hospitals and shopping centres other than those solely from the preparation of food.

2. Halgan Liquid Waste would service grease traps within the Sydney metropolitan area in accordance with the requirements of Sydney Water.
3. In 2019 there was approximately 14,000 registered grease traps with Sydney Water. Grease traps are required to be serviced (emptied) on an agreed frequency. The average frequency defined by Sydney Water is 13 weeks.
4. To cater for the increase in grease trap waste generation, due to population growth and industry growth, there is a need for additional grease trap treatment based in the Sydney area.
5. Halgan has been also been approved to service grease traps in the Australian Capital Territory (ACT). There are currently no approved treatment facilities in the ACT and all grease trap waste must be transported interstate for treatment.
6. Following treatment, to comply with EPA soil injection guidelines, the concentrated grease trap waste will be tested by a NATA approved laboratory in accordance with the EPA "*Treated Grease Trap Waste Exemption 2014*".

   The waste will be retained on site until the testing results are received and compliant. Upon receival of the test results the treated grease trap waste will be transported to an approved beneficial site for soil injection / reuse, or the waste will be directed to Earthpower or similar to assist in power generation.

7. Anticipated volumes at full capacity will comprise:

   - Maximum Weekly volume: 960 tonnes
   - Maximum monthly volume: 4,100 tonnes
   - Maximum Annual volume: 50,000 tonnes

5.3.4 Liquid Waste Quality Control

All waste received at the treatment facility will be unloaded to dedicated storage tanks. All tanks will be vented to the site air scrubber system.

All tanks and process will be automated via a SCADA system. Transfer of waste material will be via positive displacement pumps using hard plumbed transfer lines. The facility design ensures all waste liquid is managed for minimal operational contact

on site. Prior to acceptance, samples will be taken from the vehicles to ensure the grease trap waste liquid conforms with the accepted characteristics of grease trap. Grease trap waste will be subject to waste identification via the Waste ID program. Interstate waste will be validated by accompanied paperwork.

Incoming Waste Validation

Incoming grease trap waste received at the facility will be tracked in accordance with Sydney Water requirements. All vehicles will be required to comply with the Sydney Water Waste ID tracking, known as QR2. On arrival at site the drivers will scan the QR2 code affixed to the site. Once scanned, the volume delivered will be identified. This volume will then be verified via the receival tank scales to ensure volumes correspond.

Outgoing Waste Validation

Grease trap waste directed to soil injection will be treated in accordance with the EPA *Treated Grease Trap Waste Order 2014*, which includes:

- screening to remove physical contaminants;
- allowing the grease trap waste to settle by operation of gravity for at least 4 hours, so that the floating fats and oils, the aqueous liquid waste, and the solids portions of the grease trap waste to separate;
- the floating layer must either be removed or be incorporated into the bottom settled layer following saponification by the addition of lime. Grease trap waste will be allowed to settle for a minimum of 4 hours.

Once the grease trap waste is settled and stabilised, it will be weighed and transported to an approved location for soil injection and applied to land as a soil amendment.

5.3.5 Transport, Hours of Operation and Staffing

Operations would be carried out 12 hours a day, Monday to Friday, fifty-two weeks per year, excluding public holidays. No works would be carried out on Saturdays and Sundays unless deemed an emergency. Core hours of deliveries/operation would be 4.00am to 4.00pm. Trucks would leave site from 4.00am to meet market requirements and avoid traffic congestion. Two operators would be employed, with one working from 4.00am to 2.00pm, and the second from 6.00am to 4.00pm. To allow for contingency and emergency situations, approval is sought for 24/7 acceptance of waste.

IN1 Zoning allows for operation 24 hours a day with approval.

The proposed Liquid Waste facility will employ a total of 5 people with 3 drivers and 2 in the Liquid Waste facility. Total employees and cars on site requiring parking for the existing operation plus the Proposal will be a maximum of 18 people and/ or 18 cars.

5.3.6 Costs, Funding and Staging

The projected capital cost for the proposed changes is $1.3 million, and would generally comprise:

- Detailed design and procurement of key items of plant/equipment following planning consent;
- Construction of segregation wall and bunding, finished with an epoxy resin to ensure bund integrity;

- Installation of prefabricated tanks and equipment (e.g. scrubbers, screens, and DAF);
- Installation of pipework, ducting, valves and controls, electrics, signage, and fire safety equipment etc;
- Commissioning, training, optimisation, and revision of management plans.

The duration of construction is anticipated to be three months, followed by one month of commissioning and optimisation. Operations would commence only after the EPA Licence and Occupancy Certificate have been secured.

Five new full-time jobs would be created: two operations staff for the treatment plant and three new roles as truck drivers.

5.4 AUXILLIARY FACILITIES

No change in auxiliary features or utilities such as electricity, gas, water or security will be required by the proposed changes. All unloading, treatment and load out would be carried out internally.

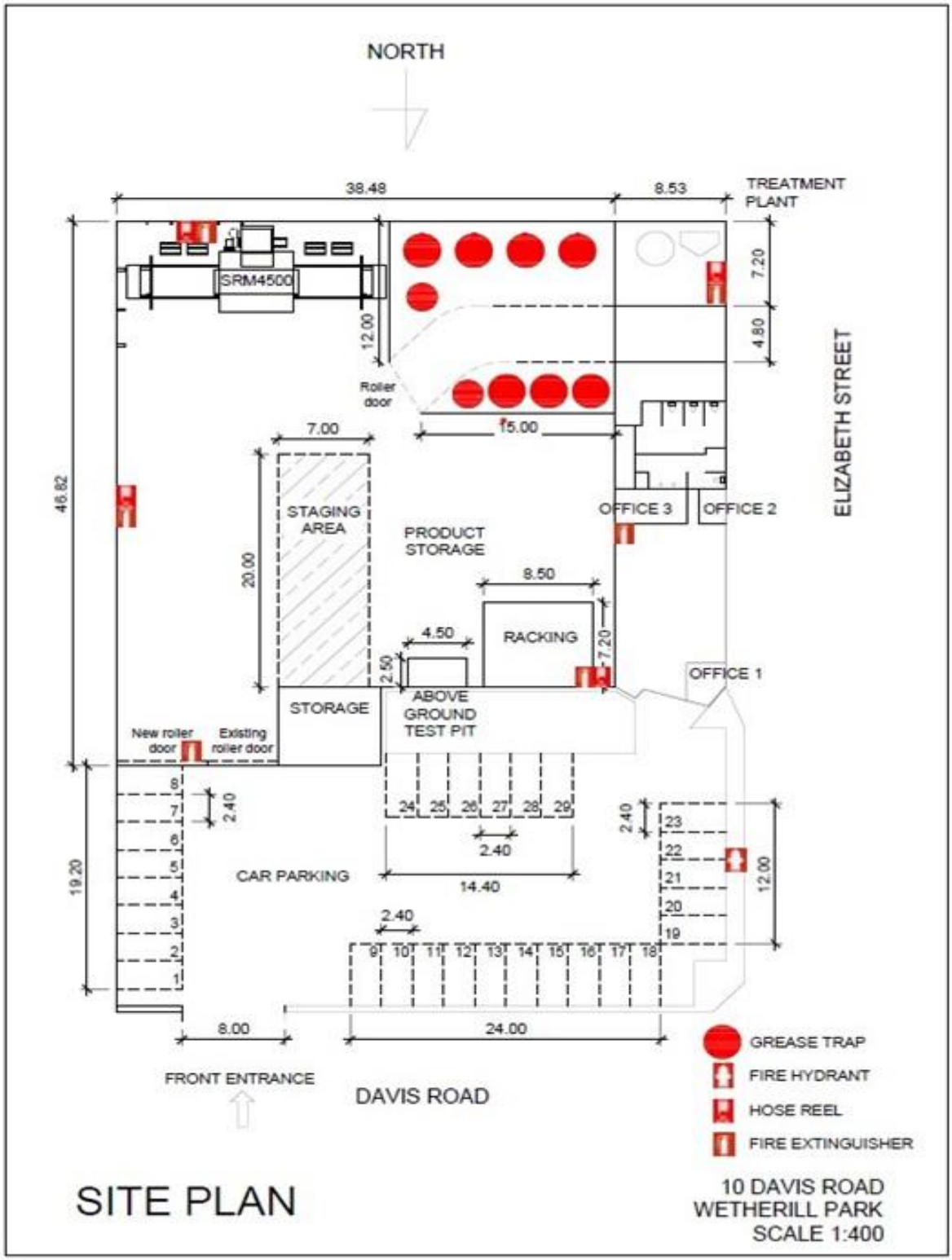
Stormwater will continue to be kept separate from process water and prevented from entering the sewer. All stormwater pits on the site are fitted with a strainer.

All water from the operations area would be contained within sumps within the bunded area. This would be treated through the DAF prior to sewer discharge. Discharge to Sydney Water's existing sewer, in compliance with trade waste agreement standards, will continue.

The existing emergency and fire systems will be upgraded as required for the proposed changes.

Figure 5.8 shows the existing fire protection equipment for the site. A comprehensive fire safety audit will be carried out during detailed design and an updated fire safety schedule prepared. This will set out any additional equipment, emergency lighting, signage, safety doors and detection systems to be installed, to meet BCA standards, regulations, and policy requirements. This would be done prior to commissioning, included in management plans, and certified by an accredited auditor.

Figure 5.8: Existing Fire Protection Equipment for the Site



6. EXISTING ENVIRONMENT AND RISK ASSESSMENT

6.1 LAND USE AND ENVIRONMENTAL SETTING

6.1.1 Existing Land Use

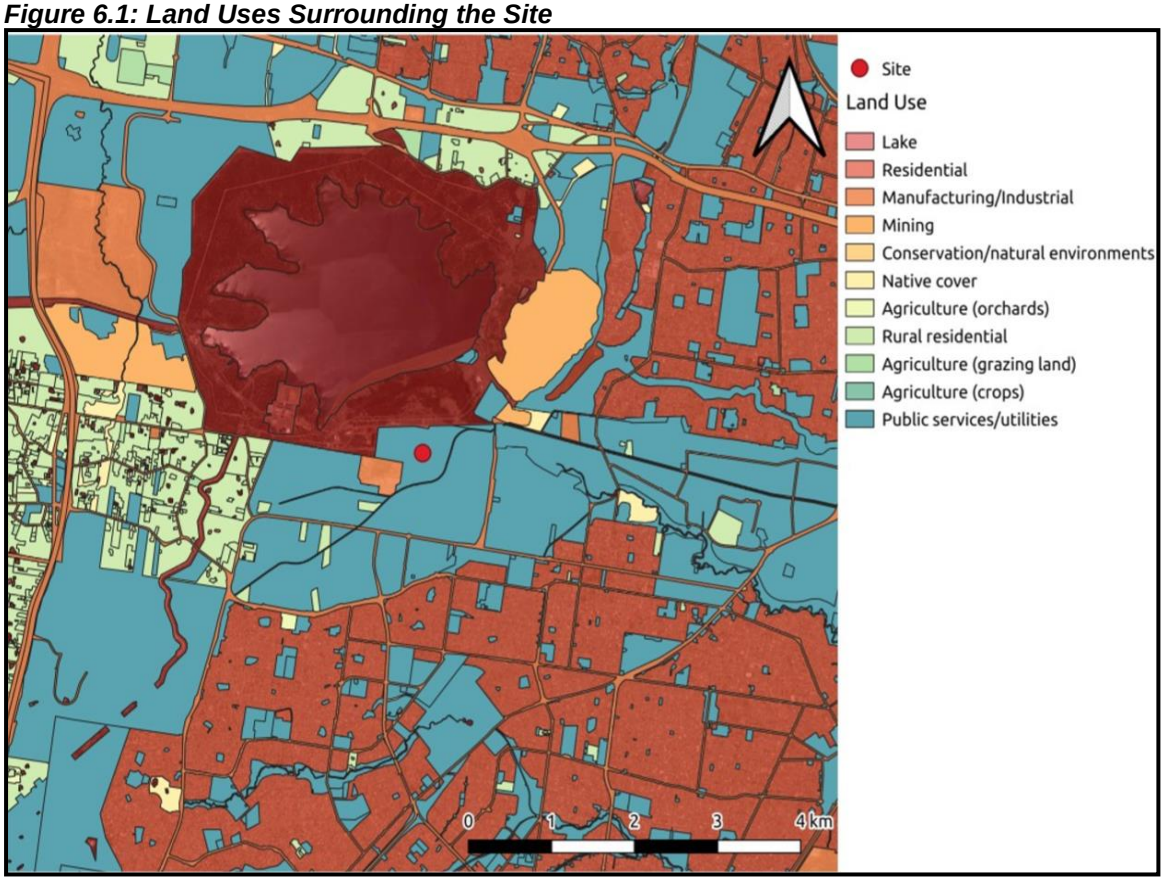
The Halgan site is Lot 603/DP 260618, 10 Davis Road, Wetherill Park NSW 2164. The site is located in the Smithfield-Wetherill Park Industrial Estate, south of the Prospect Reservoir and bounded by Hassall Street, The Horsley Drive and Cowpasture Road. The Estate is described by Fairfield City Council as the largest industrial estate in the southern hemisphere, housing over 1,000 firms and employing 20,000 people.

The facility is surrounded by extensive light and heavy industry with immediate neighbours as follows:

- North: light industrial (equipment/cabinet manufacture and engine repairs);
- East: mixed transport, manufacturing storage and other businesses;
- South: light and heavy industry;
- West: light industrial (equipment/cabinet manufacture and engine repairs).

The nearest residential area is approximately 1.4 km to the south. A map of surrounding land uses is provided in **Figure 6.1**.

Figure 6.1: Land Uses Surrounding the Site



The site is zoned General Industrial Zone IN1 in accordance with *Fairfield Local Environment Plan (LEP) 2013*. As set out in **Section 2.2,** preliminary assessment concludes the Proposal complies with the objectives and requirements of this zoning.

6.1.2 Environmental Risk Analysis – ERA Process

The SEARs require an environmental risk assessment (ERA) of the Proposal to identify the key issues for further assessment within the EIS.

The ERA process began at the concept development phase, through to the preparation for the SEARs request. The process was further developed to scope the environmental investigations and guide the project design of this EIS.

The ERA enables the EIS to:

- Identify and address key environmental issues including any environmental impacts of the Proposal and the effectiveness of management measures in minimising degradation or deterioration of the biophysical, economic, or social environment;
- Identify potential environmental impacts that are not considered key issues i.e. those that would respond well to appropriate mitigation measures and management;
- Identify residual environmental impacts likely to remain after the application of the mitigation measures. In significant cases, greater commitment to management strategies to mitigate the effect, or appropriate modifications to the design of the Proposal, may be required.

6.1.3 Risk Analysis Methodology

The ERA was undertaken by Halgan and Wild Environment in accordance with *Australian and New Zealand Standard AS/NZS 4360:2004 - Risk Management* principles. The analysis ranked the risk of each potential impact by identifying the consequences of the impact, followed by the likelihood of the impact occurring. Definitions of the consequence levels used are provided in **Table 6.1.**

Table 6.1: Definition of Consequence Levels

Consequence Level	Definition
Catastrophic	Cause long-term and irreversible impact(s). Result in a major prosecution under relevant environmental legislation.
Major	Cause medium-term, potentially irreversible impact(s). Result in a fine or equivalent under relevant environmental legislation.
Moderate	Result in medium-term, reversible impact(s).
Minor	Result in short-term, reversible impact(s).
Insignificant	Result in minor, negligible impact(s).

The likelihood of an impact occurring is identified by considering the frequency of activities that may cause an impact and the probability of the impact occurring during that activity. The level of likelihood has been classed as:

- Very likely - almost certain to occur during normal or abnormal operating circumstances;
- Likely - likely to occur during normal operations;
- Possible - may occur in course of normal operations;
- Unlikely - unlikely to occur during normal or abnormal operating circumstances;
- Very unlikely - the event may occur in exceptional circumstances only.

By combining the consequence and likelihood, the risk rating is determined and shown as a risk assessment matrix, illustrated in **Table 6.2** below:

Table 6.2: Risk Assessment Matrix

	Very Likely	Likely	Possible	Unlikely	Very Unlikely
Catastrophic	**25**	**20**	**15**	**10**	**5**
Major	**20**	**16**	**12**	**8**	**4**
Moderate	**15**	**12**	**9**	**6**	**3**
Minor	**10**	**8**	**6**	**4**	**2**
Insignificant	**5**	**4**	**3**	**2**	**1**

Risk rating scores have been determined for each combination of consequence and likelihood is shown in **Table 6.3** below:

Table 6.3: Risk Rating

Risk Rating Score	Risk Category	General Description
12 - 25	High	Detailed assessment and planning are necessary to develop appropriate measures to mitigate and manage the potential impacts.
4 -10	Medium	Potential impacts can be mitigated through the application of relatively standard environmental management measures.
1 - 3	Low	Potential impacts do not require specific management measures or are mitigated adequately through other working controls (such as detailed design requirements, normal working practice, quality, and safety controls).

The potential effectiveness of the proposed mitigation measures has been assessed and the degree of effectiveness of the mitigation measures are classed as:

- Very effective: the measure would decrease the risk rating score by 12 points, i.e. from 20 points (high) to 8 points (medium);
- Effective: the measure would decrease the risk rating score by 7 points i.e. from 12 points (high) to 5 points (medium);
- Partly effective: the measure would decrease the risk rating score by 3 points i.e. from 6 points (medium) to 3 points (low);
- Not effective: the measure would not change the risk rating.

6.1.4 Environmental Risk Analysis

Using the risk framework from **Section 6.1.2**, an ERA has been undertaken for the Proposal based on investigations and assessment of the environmental issues during the preparation of the EIS. This considers the input from various government agencies and other stakeholders during the consultation process.

The EIS includes potential impacts, benefits and consideration of proposed mitigation and management measures. Mitigation and management are detailed in full in the Compilation of Mitigation Measures (**Section 7.1** of the EIS). The results of the environmental risk assessment are presented in **Table 6.4.**

Table 6.4: Environmental Risk Assessment Results

Aspects	Potential impact example	Overall Consequences	Overall Likelihood	Risk Rating	Proposed Mitigation Measure	Effectiveness	Effectiveness Factor	Residual Risk Rating
Waste Management	Integrity of waste management processes, and the potential for harmful adverse impacts on the surrounding area because of waste handling and transport.	Major	Possible	12 High	Refer Section 5.3 & 7.0	Effective	7	5 Medium
Air Quality - Odour	Odour from operations affecting surrounding landowners.	Major	Possible	12 High	Refer Section 6.4	Effective	7	5 Medium
Traffic and Transport	Increased traffic on the roads leading to site and site ability to safety operate within increased traffic flow.	Minor	Likely	8 Medium	Refer Section 6.6	Effective	7	1 Low
Noise	Noise from construction, operations and transport (traffic and transfer trucks in and out of site), machinery, and plant upon sensitive receivers.	Minor	Possible	6 Medium	Refer Section 6.5	Partly Effective	3	3 Low
Soil and Water	Leachate leaving site, impacting downstream environments.	Major	Unlikely	8 Medium	Refer Section 6.2	Effective	7	1 Low
Flood	Flooding impacts from further development of site.	Minor	Unlikely	4 Medium	Refer Section 6.2	Partly Effective	3	1 Low
Hazards	Breakdowns in operational procedures and/or storage and transport of materials may give rise to hazards and toxicity.	Major	Unlikely	8 Medium	Refer Section 6.12	Effective	7	1 Low

6.1.5 Environmental Risk Analysis Findings

The ERA has identified that no aspects of the Proposal present a high level of residual risk. There are two aspects of the Proposal which present a medium level of residual risk as follows:

- Waste Management
- Air Quality - Odour

The residual risk rating of 'medium' suggests that the residual risk can be managed through the application of environmental management measures. These are detailed in throughout **Section 6,** and in the Compilation of Mitigation Measures in Section 7.1.

The remaining environmental risks considered for the Proposal, including those identified within the SEARs, have been assessed as having 'low level' residual risk, once mitigation measures have been applied. These environmental risks can be managed through detailed design controls, conditions of consent, and normal working practices.

6.2 WATER QUALITY, DRAINAGE AND SOILS

6.2.1 Existing Environment

The site is located in the upper catchment for the Georges River, just south of the Prospect Reservoir. The nearest riparian lands are associated with the unnamed channel / creek approximately 430m to the south of the site and Prospect Creek, which is located approximately 900m to the northeast of the site (Fairfield LEP 2013).

The site is within the Blacktown soil landscape. Soils are generally shallow to moderately deep (>100 cm), hard setting mottled texture contrast soils, red and brown podzolic soils on crests, grading to yellow podzolic soils on lower slopes and in drainage lines (loams, clay loams and clay). No acid sulphate soils risk is noted in the Fairfield LEP (2013) for the site. The site has a moderate salinity potential, generally attributed to urban development. Groundwater is generally more than ten metres below ground level in the local area.

A search of online records held by the NSW EPA's Record of Notices issued under the Contaminated Land Management Act 1997 (the CLM Act) did not identify the site as being subject to current or prior notices.

The s149 certificate for the site (Appendix B) indicates that:

- The land is not within an investigation area or remediation-site under Part 3 of the Contaminated Land Management Act 1997;
- The land is not subject to an investigation order or a remediation order within the meaning of the Contaminated Land Management Act 1997;
- The land is not subject to a voluntary investigation Proposal (or voluntary remediation Proposal) that is the subject of the EPA's agreement under Section 19 or 26 of the Contaminated Land Management Act 1997;
- The land is not subject of a site audit statement within the meaning of the Contaminated Land Management Act 1997.

The site has approximately 700m2 of permeable landscaping. Remaining site area (3,100m2) consists of either pavement or roof surfaces. All driveways and working areas on the site are fully sealed. Surface water runoff from the driveways, parking area and roof are directed to the Council stormwater system. All stormwater is directed to onsite sumps prior to discharge. Sumps are inspected and managed to

ensure the site discharge is not contaminated. All stormwater drains on site will be fitted with strainers to remove larger waste that may have been dropped on site.

6.2.2 Construction Impacts

The installation of the treatment facility would be internal to the existing building, does not require excavation, and would have negligible, if any, impact on the soils, existing water cycle or receiving waters.

As described above, all construction works will take place within a sealed bunded area. No excavation or other disturbance of the underlying soils is required.

Should the need for excavation arise during construction, due to unforeseen circumstances (e.g. utility connections), excavated soil would be stored in skip bins, sampled, and classified in accordance with NSW EPA Waste Classification Guidelines, and reused as fill or disposed of, appropriately. If excavation is needed, work would be carried out in accordance with the CEMP and the requirements of the NSW Department of Housing's Managing Urban Stormwater – Soils and Construction (Landcom, 2014).

6.2.3 Flood Risk Assessment

The site at 10 Davis Road Wetherill Park is subject to the flood related development controls included in the Fairfield City-Wide Development Control Plan 2013.

Based on the Council current information and models (Wetherill Park Overland Flood Study 2015), the site is not affected by mainstream or overland flooding. Fairfield City Council has provided a flood certificate which advises the predicted flood levels for the 10 Davis Road property and relevant flood hazard (refer **Appendix B**).

However, the flood certificate indicates that the property is partly located within a Medium Flood Risk Precinct, partly located within a Low Flood Risk Precinct as a result of overland flooding, and partly not affected by local overland flooding.

Based on survey levels, and Council's predicted flood levels for the site, Entech were commissioned to prepare a Stormwater and Flood Assessment Report (refer **Appendix F**). The Report describes the predicted flood impacts and mitigation strategies, flood levels, flood risk level, flood requirements including inundation prevention and evacuation strategies.

In order to accurately verify site levels, Project Surveyors Pty Ltd were commissioned to carry out a site survey in March 2020 to determine road, carpark, building, and street heights (refer to **Appendix D**). The surveyed level of the internal slab floor of the existing building was found to be RL 35.69, and the Plan assumes a level floor.

Based on the Council's flood modelling data, it appears that the carpark and buildings are wholly located within a Low Risk Flood Precinct. The buildings being within a Low Risk Flood Precinct indicate that the building floor levels are higher than the 1-in-100 Year flood level. The flood velocity maps indicate that Davis Road is a flood way which has significantly more flow velocity (and depth) when compared with the 10 Davis Road property.

The Stormwater and Flood Assessment Report found that:

- the building, office, and warehouse are not flood affected by the 1-in-100 Year flood event. The 1-in-100 Year flood extent appears to affect the landscape zone along the northern boundary only;

- the flood heights shown in the flood certificate indicates that the whole property is flood affected in the Peak Mean Flood (PMF) storm event;

- for flood planning, Fairfield City Council requires habitable building areas (e.g. office space, industrial) to be above the 1-in-100 Year flood height plus at least 500mm freeboard. As the predicted 1-in-100 Year flood height at the site is RL 35.7, installation of 600mm high impermeable bunds, to a height of RL36.29, around the proposed treatment facility, comfortably exceed Council's requirements RL36.20 (refer **Section 5, Figure 5.7**).

The Stormwater and Flood Assessment Report also:

- described the existing site and any buildings with reference to public roads and potential sources of flooding and flood water;

- reviewed the Flood Planning Certificate issued by Fairfield City Council and analysed the property with regards to flood levels, flood risk level and flood requirements including inundation prevention and evacuation strategies;

- concluded that, with appropriate bunding and placement of building infrastructure (e.g. power supply, chemical storage, and bunding of the liquid treatment facility to the Flood Planning Level (FPL), the proposed development is able to mitigate the risk of flooding as required by Fairfield City Council DCP.

The Stormwater and Flood Assessment Report analysed the Proposal in accordance with Council DCP (2013) requirements for industrial developments in Floodplains (Flood Risk Matrix in Schedule 6 of Chapter 11 of DCP), and concluded that the Proposal would comply with requirements (refer to Appendix C of Assessment report) and there are no issues with the proposed development from flood and evacuation during a flood event.

Key findings and recommendations of the Stormwater and Flood Assessment Report are:

- In the unlikely event that the 10 Davis Road buildings are impacted by flood water, controls should be put in place to prevent staff and visitors coming into contact with flood waters. Halgan acknowledges this recommendation and would monitor forecasts and cease operations in the event of impending major floods. Emergency evacuation plans include exiting the site onto Elizabeth Street to a marshalling point on the road verge (refer **Section 7.3** and **Appendix N)** to avoid the higher velocity flows on Davis Road;

- As part of the new development, it is recommended that any electrical contact points, such as: power points, switches, meter boxes, substations, are set at a level no less than RL36.2 (maximum 1- in-100 Year flood height plus 500mm freeboard). A higher level should be considered where critical infrastructure is required even during inundation i.e. for emergency lighting etc.;

- As part of the new development it is recommended that any chemical or waste storage area are set at a level no less than RL36.2 (maximum 1-in-100 Year flood height plus 500mm freeboard). The proposed treatment and storage facility have been designed for this requirement (refer to **Figure 5.7** for elevation of bund walls against flood levels). The unloading bays will be kept clean, and rollover bunds will protect entrances at all accesses to the existing building;

- Further, it is recommended that waste transfer areas are bunded to RL36.2 or have controls in place which prevent unguarded waste being contained below RL36.2 for long periods of times i.e. more than a day duration;

- Modifications to vehicle areas such as: carparks, loading zones, driveways, etc., are not required or proposed.

The current and proposed facilities comply with the above recommendations. The emergency evacuation and incident response plans (**Appendix N**) would be updated to cease work and receipt of waste within 24 hours of major floods, and evacuation to a marshalling point on Elizabeth Street in the event of site flooding.

6.2.4 Operation Impacts

All handling, treatment and transfer of waste would take place within a bunded, impermeable area within dedicated facilities within the existing building. Areas receiving and storing waste will be fully bunded in accordance with AS1940 and EPA 'Guidelines for Bunding and Spill Management'. Treated liquid will be disposed in accordance with the Sydney Water Trade Waste Agreement, which includes routine testing and auditing of water prior to discharge.

No changes to water supply, consumption or stormwater drainage system is proposed or required. All proposed works would be within the existing building. No water balance analysis is required as the existing building stormwater collection and discharge would not change. The liquid waste transfer and treatment would occur within the existing building. The site stormwater is collected externally and does not mix with the internal operations.

Operational impacts from the acceptance and storage of liquid waste are considered to be negligible. The proposed facility will be designed, built, and operated to mitigate any potential flood risk or impact on the operation, human health, neighbouring properties, or the environment. As there is no proposed modification to existing roof and pavement areas, and no changes to the site stormwater system, no assessment of the existing stormwater is required.

Under the provisions of SEPP 55, it is necessary to establish if the Proposal is to be undertaken on land which has been declared or found to be contaminated, where rezoning of the land is proposed or where development contemplates a change of use. As there is no excavation proposed, and the land is not declared to be contaminated, the site is concluded to be suitable for the proposed development, and complies with the objectives and controls set out in Section 3.6 (Land Contamination) of Fairfield City Wide Development Control Plan (DCP) 2013.

6.2.5 Mitigation Measures

6.2.5.1 Construction Phase

The following measures are to be included in the CEMP for implementation during construction of the proposed facility:

- All works to be carried out within bunded, paved areas;
- External areas to be kept clean, tidy and swept regularly, especially before rain;
- Daily inspections to be carried out;
- Should the need for excavation arise during construction due to unforeseen circumstances (e.g. utility connections), excavated soil would be stored in skip bins, sampled, and classified in accordance with NSW EPA Waste Classification Guidelines, and reused as fill or disposed of, appropriately. If excavation is needed, work would be carried out in accordance with the CEMP and the requirements of

the NSW Department of Housing's Managing Urban Stormwater – Soils and Construction (Landcom, 2014);

- Sumps are inspected and managed to ensure the site discharge is not contaminated;
- All stormwater drains on site will be fitted with strainers to remove larger waste that may have been dropped on site.

6.2.5.2 During Operational Phase

The following mitigation measures are to be included in the OEMP and Evacuation Plan for implementing during operations:

- In the unlikely event of flooding on the site, the following flood controls should be incorporated into Incident and Evacuation Plans:
  - Workers prevented from leaving the site, including within motor vehicles, unless directed by emergency services;
  - Site waste transfer activities halted;
  - Chemicals returned to designated storage areas;
  - Warehouse roller doors closed, and if possible, barricaded ideally with sandbags;
  - Pollutant shut valves engaged to prevent release of contaminants;
  - Staff evacuated to designated safety areas;
  - Contact emergency services for excavation and advice.
- Under no circumstances should access be permitted to Davis Road in flood for people on foot or in vehicles, except at the direction of emergency services. Davis Road has significant depth and velocity flood water when compared to the 10 Davis Road property;
- Electrical contact points to be set at a level no less than RL36.2 (maximum 1-in-100 Year flood height plus 500mm freeboard). A higher level should be considered where critical infrastructure is required even during inundation i.e. for emergency lighting etc.;
- Waste transfer areas are bunded to RL36.2 or have controls in place which prevent unguarded waste being contained below RL36.2 for long periods of times, say more than a day duration;
- All works to be carried out within bunded, paved areas;
- External areas to be kept clean, tidy and swept regularly, especially before rain;
- Daily inspections to be carried out.

6.2.6 Conclusion

The assessment concludes that there would be minimal risk to receiving waters from the Proposal during construction and operations with the proposed controls. The risk of adverse flood impacts on, or from the Proposal is considered to be negligible.

6.3 BIODIVERSITY

6.3.1 Existing Environment

The Wetherill Park industrial precinct and site at 10 Davis Road has been heavily modified by industrial use. The majority of the site is hardstand and the existing building.

The roadside grass verge on Davis Road and Elizabeth Street is wide and has several larger gums (Sydney Bluegum) and bottlebrush. Trees are typical of street trees in industrial area, of average health and structure, and clearly impacted by occasional trimming to protect overhead powerlines (refer to **Figures 6.2, 6.3 and 6.4).**

The area is subject to heavy traffic with associated noise typical of heavy traffic and industry. No evidence was sighted of wildlife corridors, nests, possums, dreys, or hollows in trees surrounding the site.

Within the site there are several callistemon (bottlebrush) that were planted following development in the 1970's to provide amenity. There is limited flora and fauna resources on the site and its immediate surroundings, with little potential habitat. A NSW Bionet Atlas Search found no listed threatened species in the immediate vicinity (refer **Appendix E**).

Figure 6.2: Site View from Davis Road (Google Street View)

Figure 6.3: Site View from Davis Road - Elizabeth St intersection (Google Street View)

Figure 6.4: below: Site View from Elizabeth St (Google Street View)

6.3.2 Methodology

The assessment entailed a visual inspection and database searches. These formed the basis of the Biodiversity Development Assessment Report (BDAR).

6.3.3 Impact Assessment and Mitigation Measures

6.3.3.1 Construction

The proposed development area consists of internal alterations to an existing structure which has no impact on any flora or fauna species. Several small bottlebrush trees are located within the site, near the office entrance, and well outside the construction access zone, which will be clearly marked to avoid vegetation and parking conflicts.

No excavation or vegetation clearing is required during the construction activities. Proposed works will not entail excavation and will be carried out within the existing building within bunded areas, hence no impacts to water quality in the vicinity are anticipated.

Existing trees on site and road verge to be clearly marked and excluded from risk of impact during construction activities.

6.3.3.2 Operation

Operational activities would be carried out within the existing building, and trucks and products would be transported using existing concrete access and egresses. It is considered there would be negligible risk of impact to existing flora on and adjacent to site, which will be protected and maintained.

6.3.4 Conclusion

Assessment of biodiversity potentially impacted by the proposed development concludes:

- The local area, road verge and site has limited flora and fauna, typical of an established industrial area;
- Existing site trees comprise several small bottlebrush, planted following development in the 1970's, and will not be impacted by construction works;
- Operational activities associated with the proposed development will be carried out on existing roadways and within the existing building and would not impact flora on the road verge or within the site. Existing trees will be protected and maintained;

Assessment concludes there would be negligible risk of impact to biodiversity during construction or operation, and that the site represents a suitable location for the proposed liquid waste facility.

In response to an application submitted by Halgan, DPIE Energy, Environment and Science Group granted a BDAR Waiver on 9 December 2019 (refer **Appendix A**).

6.4 AIR QUALITY (DUST & ODOUR)

6.4.1 Introduction

An assessment of air quality impacts has been undertaken by Air Noise Environment **(**refer **Appendix G)**. The purpose of this report was to determine the potential odour generating sources from the Proposal, undertake modelling of the worst-case scenarios likely at the site, determine the likely impacts, and propose suitable mitigation measures and strategies.

The assessment has also been prepared to satisfy the SEARs, which requested the following be considered:

- A quantitative assessment of the potential air quality, dust and odour impacts of the development in accordance with relevant EPA guidelines;
- Details of buildings and air handling systems and strong justification for any material handling, processing, or stockpiling external to a building;
- Details of proposed mitigation, management, and monitoring measures.

A full summary of the SEARs requirements (including agency responses) are included within **Appendix A**. Section 1.3 of the Air Quality Assessment Report (refer **Appendix G)** sets where each of the SEARS and agency requirements are addressed.

6.4.2 Existing Environment

Air quality in the Wetherill Park precinct is typical of industrial areas, with adverse impacts from heavy traffic and industry. There are several large recycling operations in the vicinity, including Council and privately operated civil recycling operations.

SUEZ Wetherill Park Resource Recovery Centre and Cleanaway Waste Oil Recycling are also located on Davis Road, representing the nearest major industrial premises with odour and Volatile Organic Compound (VOC) emissions. Both sites operate under Environment Protection Licences. Other industrial premises in the area associated with cumulative air quality impacts are various spray booth operations.

6.4.3 Methodology

6.4.3.1 Odour Criteria

The odour assessment has been carried out in accordance with the odour criteria presented in the document "Assessment and Management of Odour from Stationary Sources in NSW", published by the NSW OEH in November 2006.

Table 6.5 presents odour criteria for various population sizes, as specified by the OEH.

Table 6.5: NSW EPA/OEH Odour Criteria

Population of Affected Community	Odour Assessment Criteria (OU)
Rural single residence	7.0
~ 10	6.0
~ 30	5.0
~ 125	4.0
~ 500	3.0
Urban area (≥ 2000) and/or schools and hospital	2.0

The NSW EPA/OEH air modelling and odour guidelines define a sensitive receptor as:

"...a location where people are likely to work or reside; this may include a residential dwelling, school, hospital, office or public recreational area."

While the definition includes "*where people are likely to work*," industry, or industrial premises are however, generally not considered to be sensitive receptors. The

activities undertaken in these areas are often inherently odorous.

The Air Quality Assessment assumed that the results of the dispersion modelling would be assessed against the 7 OU odour criteria at all locations beyond the boundaries of the facility, which is consistent with the criteria broadly adopted by developments in industrial precincts.

6.4.3.2 Modelling Methodology

Atmospheric dispersion modelling involves the mathematical simulation of the dispersion of air contaminants in the environment. The modelling utilises a range of information to estimate the dispersion of pollutants released from a source, including:

- meteorological data for surface and upper air winds, temperature, and pressure profiles as well as humidity, rainfall, cloud cover, and ceiling height information;
- emissions parameters including source location and height, source dimensions and physical parameters (e.g. exit velocity and temperature) along with pollutant mass emission rates;
- terrain elevations and land use both at the source and throughout the surrounding region;
- the location, height, and width of any obstructions (such as buildings or other structures) that could significantly impact on the dispersion of the plume;
- sensitive receptor locations and heights.

A detailed description of the above, and data used, is set out in the Air Quality and Noise Assessment Report **(Appendix G).**

For the purpose of the assessment, meteorological modelling has been undertaken using The Air Pollution Model (TAPM) and CALMET to predict localised meteorological conditions. The meteorological data derived from these models has been used as an input for the CALPUFF dispersion modelling.

The air modelling has been undertaken to identify air quality impacts on neighbouring industrial premises. As such a detailed receptor grid (300m x 300m, 5m spacing) has been adopted to ensure sufficient resolution for identifying the highest off-site concentration. Due to the effects of building downwash, the highest concentrations are expected to occur in close proximity to the development site.

6.4.4 Assessment

6.4.4.1 Potential Air Emissions

The proposed waste stream for the Halgan facility is 50,000 tpa of liquid grease trap waste (K110). This includes receival of waste, storage, non-thermal separation and emissions via an odour control unit.

Odour from liquid waste is considered to be the main indicator for assessing potential air quality impacts for the site. The main source of odour is associated with the venting of emissions from tanks via an OCU system. All tanks and treatment processes will be hard plumbed to the OCU system, and emissions will be vented via a rooftop exhaust.

Odour emissions are also expected to occur during the loading of trucks with treated material or sludge for transportation off site. This will occur only approximately 3 times a day (or 1.5 hours a day, assuming half an hour for loading each truck). While odour emissions during this activity will not be connected to the OCU system, the potential for odour impacts from this activity are expected to be minor due to the infrequent nature of the activity (1.5 hours per day) and low flow rate associated with emissions

(< 0.02 m3/s flow rate, based on 30 m3 of waste and half an hour of loading).

Other potential sources of odour include spills and waste residue on vehicles and equipment. These are considered fugitive emissions and can be minimised through appropriate odour management measures and good housekeeping.

6.4.4.2 Air Emissions Data

Air emissions data has been sourced from previous modelling and sampling undertaken by Air Noise Environment for similar liquid waste facilities in Sydney and Brisbane involving grease trap waste. Specific reference data was drawn from a recently commissioned site in Glendinning in Sydney that treats similar liquid wastes by similar treatment methods and is considered representative of the waste sources and air emissions.

The similar Glendinning facility has been monitored since the initial modelling and hence the odour sources, flux and emission rates have been verified as comparable to the proposed Halgan facility. Sampling methods and locations were in accordance with relevant Australian or other established standards, and analysis was carried out by NATA-accredited facilities.

Table 6.6 presents a summary of the odour and sampling results during unloading/loading of liquid waste for the similar Glendinning facility. Emissions during unloading are expected to be higher compared to emissions from undisturbed storage tanks. The Volatile Organic Compound (VOC) sampling did not identify any VOCs in the organic grease trap waste (all results were below the detection limit).

Table 6.6: Odour Sampling Results
(OCU Inlet/ Outlet during grease trap unloading for a similar Facility)

Test	Sampling Location	Odour Concentration (OU)	Odour Emission Rate (OUV/s)
1	OCU Inlet	2670	1027.2
1	OCU Outlet	73	27.9

Based on the emissions data above, **Table 6.7** presents the modelled odour emissions data considered in the modelling. It is noted that the odour emission rate at the OCU outlet was 27.9 OUV/s (which represented a 97% reduction from 1027.2 OUV/s at the inlet). To allow for some conservatism in the modelling, a total odour emission rate of 100 OUV/s has been adopted for the proposed rooftop OCU outlet.

Table 6.7: Modelled Rooftop Vent Emissions

Source	X (km)[a]	Y(km)[a]	Relative Height (m)[b]	Diameter (m)[c]	Exit Velocity (m/s)[d]	Temp (C°)[e]	Emission Rate (OUV/s)
OCU Rooftop Exhaust	305.896	6253.927	9.0m (1.0m above roof)	0.3	5.0	Ambient	100

a Centre of existing building

b Assumed height above roof

c Assume exit diameter for a similar OCU and exhaust system

d Conservative velocity estimate for a mechanically vented OCU system

e Ambient emission temp expected (no thermal treatment involved in proposed process)

Key assumptions for the modelling (**refer Appendix G**) included:

- Conservative emission, flux and odour control removal rates: A highly conservative modelling scenario has been adopted whereby liquid waste loading is occurring continuously 24/7. In practice, loading will occur intermittently (1-2 trucks per hour) between the hours of 4 am and 4 pm on Monday to Friday.
- Halgan and Air Noise Environment have reviewed various odour treatment technologies and determined that Granular Activated Carbon (GAC) would be the most suitable for the proposed development. It removes a diverse mix of complex odours and VOCs, has the highest odour removal efficiencies compared to other technologies, is effective under variable odour loads, and requires minimal ancillary equipment and maintenance;
- Emissions are related to tank breathing, particularly during filling of the tanks when odour in the tank head space is forced out. All emissions from tanks will pass through the GAC Odour Control Unit (OCU) system prior to being released via a new stack 9.0m high (1.0m above the rooftop of the existing building);
- Liquid waste tankers will enter the premises via the roller door entry off Davis Road and into a bunded unloading area. The roller door to the liquid facility will be closed, prior to any unloading of liquid;
- The operations are proposed to occur 12 hours a day (core hours 4 am to 4 pm), Monday to Friday. No works would be carried out on Saturdays and Sundays unless deemed an emergency.

The modelling has been undertaken to identify air quality impacts on neighbouring industrial premises. A detailed receptor grid (300m x 300m x 5m spacing) plus boundary receptors was adopted to ensure sufficient resolution for identifying the highest off-site concentration. Due to the effects of building downwash, the highest concentrations are expected to occur in close proximity to the development site.

6.4.4.3 Modelling Results

Table 6.8 presents the predicted air modelling results. The results of the modelling indicate predicted ready compliance with the NSW EPA criteria.

Table 6.8: Predicted Air Quality Modelling Results

Location	High Predicted Concentrations off-site (mg/m3)	Averaging Time	Criteria
Highest off-site	0.75	99th Percentile, Peak	7 OU
Western Boundary	0.70		
Northern Boundary	0.52		
Eastern Boundary	0.53		
Southern Boundary	0.69		

It is noted that the NSW EPA does not define odour criteria for nearby industrial premises. The 7 OU criterion has been adopted as the highest possible value with NSW applied to residential areas (i.e. single rural dwellings). The predicted peak 99th odour concentration is also below the limit of detection (1 OU), therefore, the contribution to odour in the area can be considered negligible. The modelling shows compliance by a significant margin for odour assuming an appropriately designed OCU system is implemented on site, as shown in **Figure 6.5**.

Figure 6.5: Predicted Ground Level Odour Concentration plot (criteria 7OU)

It is noted that the modelling is highly conservative by assuming the following:

- 24/7 waste loading activity;
- A relatively low exit velocity of 5 m/s (typical mechanically exhausted OCU vents are in the range of 10 m/s or more);
- A 90% odour reduction efficiency for the OCU – commissioning testing at an existing OCU indicates an odour reduction efficiency of up to 97%. Given the above assumptions, it is expected that ground level concentrations would be lower in practice.

Overall, all predicted concentrations are below the criteria by a significant margin. Therefore, potential air quality impacts are expected to comply with the relevant criteria contribution of overall odour in the surrounding industrial area as a result of the proposed operations are expected to be minimal.

As the material to be treated is liquid, there will be no negligible dust or particulate matter generated. Daily sweeping of the working areas, and stringent general housekeeping, will ensure no accumulation or generation of dust.

6.4.4.4 Construction Phase Assessment

No adverse odour or air quality impacts are predicted during the construction phase. Installation of the containment walls, bunding, tanks, pipework and equipment would have negligible temporary impacts as this would entail placement of prefabricated panels and tanks etc. If required, damping down of the work area will be carried out to suppress nuisance dust.

6.4.5 Proposed Mitigation Measures

The air dispersion modelling assumes that an GAC OCU is installed at the liquid waste facility. All storage tanks are proposed to be hard plumbed to the OCU such that all odorous emissions will be vented through the OCU and out a rooftop exhaust. Based on previous sampling at a grease trap liquid waste facility, the pre-treated odour emissions during grease trap loading is approximately 1000 OUV/s. The use of an activated carbon filtration system achieved a 97% reduction based on post-treatment sampling. The modelling completed as part of this assessment assumes only a 90% reduction efficiency.

Attention must also be given to general odour management techniques and measures to further control odour emissions from the site. These measures should be implemented on a day-to-day basis. Management procedures would include:

- availability of spill kits to allow for prompt containment of spills which could be odorous;
- stringent housekeeping regime, subject to inspection and audit;
- regular inspection and cleaning of any inground sumps;
- installation and operation of best-practice foul air collection and scrubber system;
- minimum exit velocity of 10 m/s from the OCU discharge vent;
- segregated area to be kept under negative pressure with all air scrubbed prior to atmospheric discharge;
- implementation of a waste acceptance evaluation procedure to ensure all waste received on site meets the relevant criteria;
- careful facility design to capture odour point sources and limit potential for fugitive

emissions to be generated;

- closure of rollers doors during all waste unloading activity to minimise the potential for fugitive odour emissions;
- waste transferred regularly to reduce volumes and risk of fugitive emissions;
- vector/pest control program to be implemented;
- good neighbour program, monitoring and contact management program to be implemented;
- cleaning of vehicles where necessary prior to departure from site;
- use of odour neutralisers if required;
- availability of spill kits to allow for prompt containment of spills which could be odorous;
- stringent housekeeping regime, subject to inspection and audit;
- regular inspection and cleaning of any inground sumps;
- daily odour survey observations around the boundary of the site;
- work procedures in the event of any particularly odorous loads (e.g. use of odour neutraliser, identifying waste source and investigating possibility of treating off-site or diverting to another waste facility);
- additional OCU medium on-site at all times (e.g. additional activated carbon to be stored on site and used once the OCU has reached capacity).

6.4.6 Conclusions

Computational air modelling and assessment has been undertaken for the proposed Halgan Liquid Waste facility at 10 Davis Road, Wetherill Park. The results and findings of the assessment can be summarised as follows:

- The nearest receptors are industrial premises surrounding the development site. The nearest residential zones are 1.4 km from the site;
- Air quality modelling of odour and VOCs demonstrates ready compliance with the ambient air quality criteria at and beyond the boundary of the site (as defined in the NSW Approved Methods for the Modelling and Assessment of Air Pollutants in NSW 2017). The results show that the operation of the liquid waste facility is expected to have minimal contribution to the current air quality environment in the surrounding industrial area;
- The recommended odour mitigation and management measures provided in **Section 6.4.5** would be implemented. These measures will enable the proposed facility to operate in a manner that is conducive to achieving the outcomes of Protection of the Environment Operations Act (1997) and the POEO (Clean Air) Regulation (2010) with respect to air emissions, negligible dust or air quality impacts anticipated during the construction phase.
- Overall, based on the results of the air modelling, the proposed operation is expected to comply with the relevant NSW legislation and the site represents a suitable location for the proposed liquid waste facility from an air quality perspective.

6.5 NOISE & VIBRATION

6.5.1 Introduction

An assessment of noise and vibration impacts from the proposed development has been undertaken by Air Noise Environment **(Appendix G)**. The purpose of this assessment was to determine potential noise and vibration impact at the nearest residential and industrial receivers to the site. The assessment also considered construction, operational and transport noise impacts associated with the development.

The Noise and Vibration Impact Assessment Report has also been prepared to satisfy the SEARs and Agency requirements, which requested the following be considered:

- a quantitative assessment of potential construction, operational and transport noise, and vibration impacts in accordance with relevant EPA guidelines;
- identify all noise sources from the development (including both construction and operation phases). Detail all potentially noisy activities including ancillary activities such as transport of goods and raw materials;
- specify the times of operation for all phases of the development and for all noise producing activities;
- identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals;
- determine the existing background and ambient (LAeq) noise levels in accordance with the NSW lndustrial Noise Policy (NSW EPA 2017);
- determine the existing road traffic noise levels in accordance with the NSW Environmental Criteria for Road Traffic Noise, where road traffic noise impacts may occur;
- details and justification of the proposed noise mitigation and monitoring measures.
- A full summary of the SEARs requirements (including agency responses) are included within **Appendix A**. Section 1.3 of the Air Quality Assessment Report (refer Appendix G) sets where each of the SEARS and agency requirements are addressed.

6.5.2 Existing Environment

The Smithfield-Wetherill Park Industrial Estate is zoned General Industrial in accordance with Fairfield City LEP 2013. The area has mixed heavy and light industrial businesses, and warehousing and distribution. Prospect reservoir is located to the north. The areas north, south, east, and west of the subject site are all considered industrial and host a range of heavy industries that operate 24 hours a day.

Background noise in the area is generally associated with traffic, including a high portion of heavy vehicle movements, and surrounding industrial operations.

The nearest private residential receivers are located approximately 1.4 km to the south of the subject site on Maugham Crescent, Wetherill Park. These residences are located immediately south of the industrial estate, and approximately 170 metres north of The Horsely Drive, an arterial road with high traffic flows.

6.5.3 Methodology

6.5.3.1 Modelling

Noise modelling of the sources was completed using the proprietary software CadnaA (Computer Aided Noise Abatement Model), and incorporated local meteorology, terrain, ground type and air absorption in addition to source characteristics to predict noise impacts at receptor locations. The prediction method incorporated into CadnaA is in accordance with ISO Standard 9613-2 (1996) Acoustics Attenuation of sound during propagation outdoors.

6.5.3.2 Noise Criteria

The acoustic assessment has been carried out in accordance with the NSW EPA Noise Policy for Industry (NPI, 2017) and associated standards. The NPI sets two separate noise criteria to meet environmental noise objectives: one to account for intrusive noise and the other to protect the amenity of particular land uses.

Intrusive noise refers to noise that exceeds background noise levels (as defined by the Rating Background Level or RBL) by more than 5 dB. The project intrusiveness noise level seeks to protect an area against significant change in noise levels. The intrusiveness criteria for the assessment applies only to sensitive receptors, such as residential dwellings.

It is noted that the nearest residential dwellings are 1.4 km away and shielded from the site by existing industrial buildings. Therefore, the potential impacts from the site operations are expected to be negligible, and continuous baseline noise monitoring was determined not to be required.

The project amenity noise levels aim to protect an area against cumulative noise impacts from industry and to maintain the acoustic amenity for specific land uses. Unlike the intrusiveness noise level which focuses on residential uses, the amenity noise level applies to all types of land uses (e.g. commercial, industrial, and residential). The project amenity noise level is defined as *recommended amenity noise level for land use of interest minus 5 dB(A).*

The receivers relevant to this noise assessment, based on the NPI land use criteria, include residential dwellings in an urban noise amenity area. Based on this, the recommended amenity noise levels are 60 dB(A), 50 dB(A) and 45 dB(A) for the day, evening, and night, respectively. Using these recommended levels and minus 5 dB(A) adjustment, **Table 6.9** below presents the Halgan project amenity noise levels.

Table 6.9: Project Amenity Noise Levels

Period	Recommended Amenity Noise Level dB(A)	Adjustment dB(A)	Project Amenity Noise Level dB(A)	
			LAeq, period	LAeq,15-minute
Residential				
Day	60	-5	55	58
Evening	50	-5	45	48
Night	45	-5	40	43
Industrial	70	-5	65	68
As per the NPI requirements, the LAeq, period amenity noise level can be converted an LAeq,15-minute noise level using a plus 3 dB(A) correction. An alternative correction may be considered with robust evidence.				

As required by the NSW NPI, the lower of the intrusive and amenity noise levels is to be adopted for an assessment. The final levels are referred to as the project noise trigger levels, which are summarised in **Table 6.10**.

Table 6.10: Project Noise Assessment Criteria

Period	Project Noise Trigger Level	
	Residential	**Industrial**
Day	40 LAeq,15-minute	68 LAeq,15-minute
Evening	35 LAeq,15-minute	68 LAeq,15-minute
Night	35 LAeq,15-minute	68 LAeq,15-minute

6.5.4 Noise Impact Assessment

6.5.4.1 Potential Noise Sources

The following key noise sources have been identified for the site:

- waste tanker movements;
- unloading pump;
- OCU system exhaust fan.

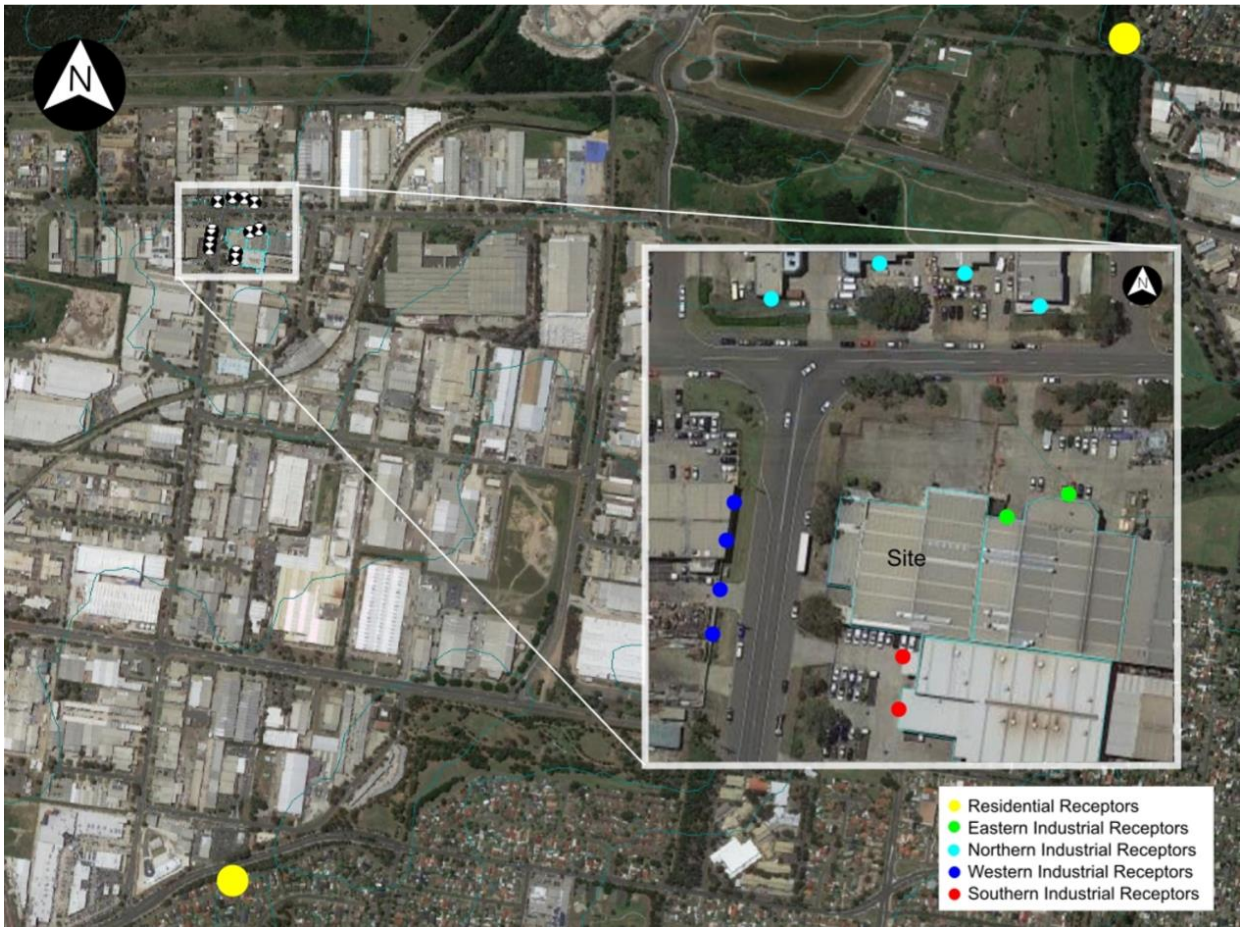
The OCU exhaust fan would operate continuously, while the unloading pump will be required only during unloading/loading of trucks. Approximately 18 waste tanker movements (15 trucks unloading and 3 trucks for outloading) are expected. This equates to 1-2 per hour for 12 hours of operations per day.

Overall, the potential operational noise impacts are considered to be minor, given the nature of the sources (e.g. small fixed plant and vehicle movements). Furthermore, the nearest residential receptors are at least 1.4 km away from the site and shielded from the site by industrial buildings.

6.5.4.2 Sensitive Receptors

A total of 12 discrete receptors have been modelled at 1.5 m above ground to represent the nearest industrial uses. Two additional receptors have been included to represent the nearest residential areas to the far east and south. **Figure 6.6** presents the modelled discrete receptors.

Figure 6.6: Modelled Noise Receptors at Site



6.5.4.3 Noise Modelling Scenario

The noise modelling considered a worst-case scenario with all key noise sources operating simultaneously:

- unloading pump;
- mechanical rooftop vents;
- odour control unit fan;
- truck movements;
- plastic roto-moulding machine (if consent is sought in the future).

The noise modelling has considered the operation of future plastic roto-moulding equipment to allow for the assessment of cumulative noise impacts. Noise source data is based on ANE's in-house noise source data, which includes noise measurements of similar activity and equipment. The noise-source data and locations are set out in the Assessment Report (refer **Appendix G.** Note that **Figure 2.2**, Proposed Site Layout, in the Assessment Report has now been superseded as treatment of oily water has been deleted from the proposal, however this is immaterial to the assessment of noise impacts).

6.5.4.4 Noise Modelling Results

Table 6.11 presents predicted operational noise levels. The results of the modelling indicate compliance with the noise criteria at both industrial and residential receptors by a significant margin.

Table 6.11: Predicted Noise Levels

Receptors	Predicted LAeq,15-minute Noise Level dB(A)	Project Noise Trigger Level
Industrial – South	42	68
Industrial – East	43	68
Industrial – West	45	68
Industrial – North	43	68
Nearest Residential	<10	35

There would be negligible, if any, vibration as only small and well-proven pumps and plant would be used.

6.5.4.5 Traffic Noise

The proposal is expected to result in up to 18 truck (15 in and 3 out) movements per day (or 1-2 per hour). This potential increase in truck movements is minimal compared to the expected number of vehicles movements in the surrounding industrial area. NSW Road Noise Policy specifies a 2 dB allowance to increase in LAeq,15-hour (7am-10pm) noise levels as a result of new development. For such a threshold to be exceeded, the proposed development would need to increase current traffic levels by almost double.

It is expected that 18 trucks per day would represent a small proportion of the existing movements in the area (and certainly not two times the existing movements).

6.5.4.6 Construction Noise and Vibration

Construction will primarily comprise involve installation of bunds, walls, tanks, and pipework within the existing building over a three-month period. Potential noise impacts will primarily be associated with operation of plant and equipment such as hand tools.

Construction hours will be 7.00am – 6.00pm, Monday to Friday. There will be a maximum of four construction workers on site at any one time that will require parking for two vehicles. Delivery vehicles will number up to 2 HRV vehicles per day and will use HIAB cranes. There may also be the use of small mobile cranes from time to time.

Potential impacts associated with construction of the proposed facility are expected to be minimal, given the large separation distance to the nearest sensitive receptors and the standard construction methods and working hours to be adopted.

Overall, these activities have a minimal sphere of influence in terms of noise and vibration impacts and are expected to have a minor impact on neighbouring industrial premises and negligible impact on the nearest residential receivers at least 1.4 km away.

6.5.5 Management and Mitigation

Best-practice measures will be adopted to mitigate noise and vibration, in accordance with Halgan's HSE Policy for its staff, and to prevent impacts on neighbours:

- careful facility design to limit potential for noise to be generated;
- installation and operation of plant and equipment that minimises noise during operation e.g. selection of extraction fans to minimise noise, use of neoprene washers and fixings to minimise noise and vibration from pumps;
- segregated area kept under negative pressure. All air discharged to atmosphere;
- closure of rollers doors during all waste unloading activity to minimise noise amenity impacts on neighbours;
- good neighbour program, monitoring and contact management program to be implemented;
- stringent maintenance regime, subject to inspection and audit.

6.5.6 Conclusions

A noise and vibration assessment has been undertaken for the proposed Halgan liquid waste treatment facility at 10 Davis Road, Wetherill Park. The results and findings of the assessment are summarised as follows:

- the nearest receptors are industrial premises surrounding the development site. The nearest residential uses are 1.4 km from the site;
- noise modelling demonstrates compliance with the noise criteria (defined by the NSW NPI 2017) at the nearest residential and industrial receptors using a highly conservative approach (all potential sources operating simultaneously and under worst-case meteorology);
- the potential for construction noise and vibration impacts are considered to be minimal given that activities will be limited to refurbishment of an existing building and only standard construction methods would be adopted;
- potential vibration impacts from the proposed activity are expected to be negligible,

based on the types of expected equipment operating on site (e.g. fixed plant, typical truck movement).

Overall, based on the results of the noise modelling, the proposed operation is expected to comply with the relevant NSW legislation and the site represents a suitable location for the proposed liquid waste facility from a noise perspective.

6.6 TRAFFIC, ACCESS AND PARKING

6.6.1 Existing Setting

6.6.1.1 The Site

10 Davis Road, Wetherill Park is located on the south eastern corner of Davis Road/Elizabeth Street intersection (refer **Figure 6.7**).

The existing development on the site includes an industrial building located at the rear, and a paved concrete parking and vehicle manoeuvring area at the front. The building has a production and storage (factory) area and vehicle loading area, as well as a smaller office area. Vehicle access to the building is via a high roller door 5 metres wide.

Vehicle parking is provided for 29 vehicles, in the external concrete paved area.

Vehicle access is via a combined entry/exit driveway 8.0 metres wide in Davis Road which is located approximately 40 metres east of Elizabeth Street.

A second driveway 6.0 metres wide is located in Elizabeth Street, some 62 metres south of Davis Road. This driveway is currently not used by Halgan, but will be used with the Proposal, for trucks to exit the liquid treatment bay after unloading.

The sight distance to and from the driveways in Davis Road and in Elizabeth Street is considered to be satisfactory and meets the requirements of AS2890.1 for the posted speed limits in Davis Road and Elizabeth Street.

The existing operation is as follows:

- A total of 13 employees: 6 people in the factory and 7 people in the office;
- The hours of operation are 7.00am – 4.00pm Monday to Friday (i.e. no weekends);
- Current deliveries are 3 to 4 trucks per week which are typically rigid vehicles (trucks) up to 12.5 metres long. These are external transport company trucks and do not have to be parked on the site;
- Halgan has one (1) small rigid truck (6.4 metres long), which it parks on site.

Figure 6.7: Site at 10 Davis Road, Wetherill Park

6.6.1.2 Transport Routes

Transport routes to and from the facility include Davis Road, Elizabeth Street, Victoria Street, Widemere Road, Cowpasture Road, The Horsley Drive, the M7 and other state roads in the regional area.

The main purpose of the Wetherill Park Industrial Precinct is to concentrate heavy vehicle movements and deliver them to an appropriate intersection within the regional road network.

The location of the site is well serviced by a number of arterial roads including The Horsley Drive to the south, The Cumberland Highway to the east, the Great Western Highway to the north, and Westlink M7 to the west.

Streets within the Industrial Estate have been designed specifically to cater for the movement of heavy vehicles within an industrial area. As such, they provide wide carriageways with lay-bys and turning areas sufficient for vehicles to enter all adjacent sites.

Davis Road, in the section between Elizabeth Street and Widemere Road Street, is a major collector road in the Wetherill Park industrial area.

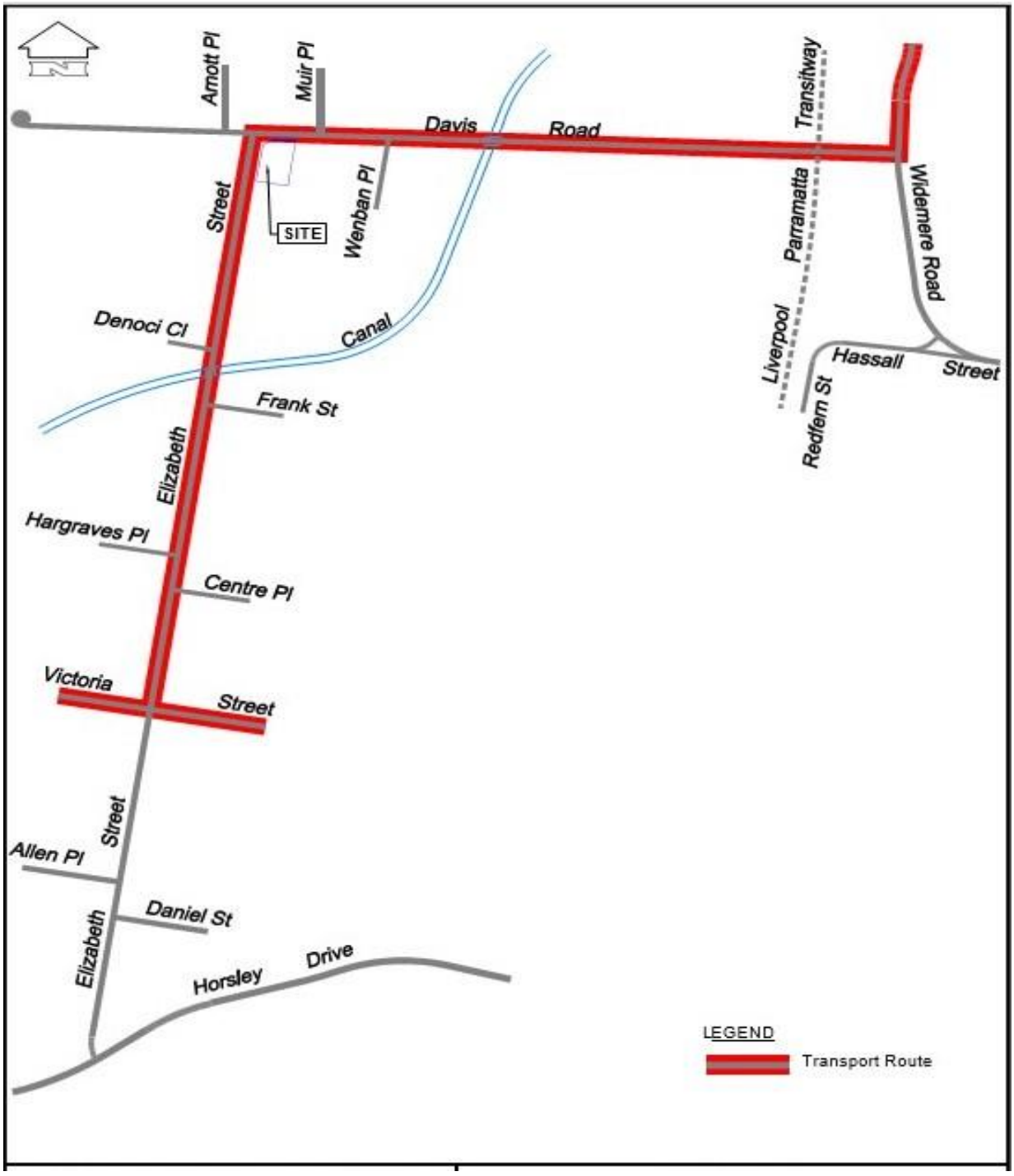
Davis Road adjacent the site is 13.0 metres wide providing for one (1) travel lane in each direction, plus room for parking on both sides.

Elizabeth Street, adjacent the site, is 18.4 metres wide catering for one (1) travel lane in each direction, plus a wide parking lane (5.4 metres wide) on both sides.

The speed limit on Davis Road and Elizabeth Street is 60km/h. Sight distance at the intersection of Davis Road/Elizabeth Street for vehicles turning out of Elizabeth Street is satisfactory, exceeds 100 metres in each direction and meets Austroad requirements as shown on **Figure 6.8.**

Public transport services in the area include a number of bus routes operated by Transit Systems. There are also a number of bicycle routes and facilities.

Figure 6.8: Transport Routes



6.6.1.3 Transport Conditions

Traffic counts were undertaken during the weekday AM (7.00am - 9.00am) and PM (4.00pm and 6.00pm) periods at the following intersections/locations:

- Davis Road/Elizabeth Street intersection;
- Elizabeth Street/Victoria Road intersection;
- Davis Road/Entry and Exit Driveway to Halgan site;
- Elizabeth Street/Victoria Street intersection.

The peak hours at the intersections and at the site driveway occurred at different times in the AM and PM peak periods.

A review of on-site traffic conditions and traffic modelling of the AM and PM peak hour traffic volumes indicates that traffic conditions at the Davis Road/Elizabeth Street intersection in terms of vehicle delay and level of service are good.

Traffic conditions at the Elizabeth Street/Victoria Street intersection are busier during the peak hours and the intersection operates close to capacity.

6.6.1.4 Proposed Liquid Waste facility

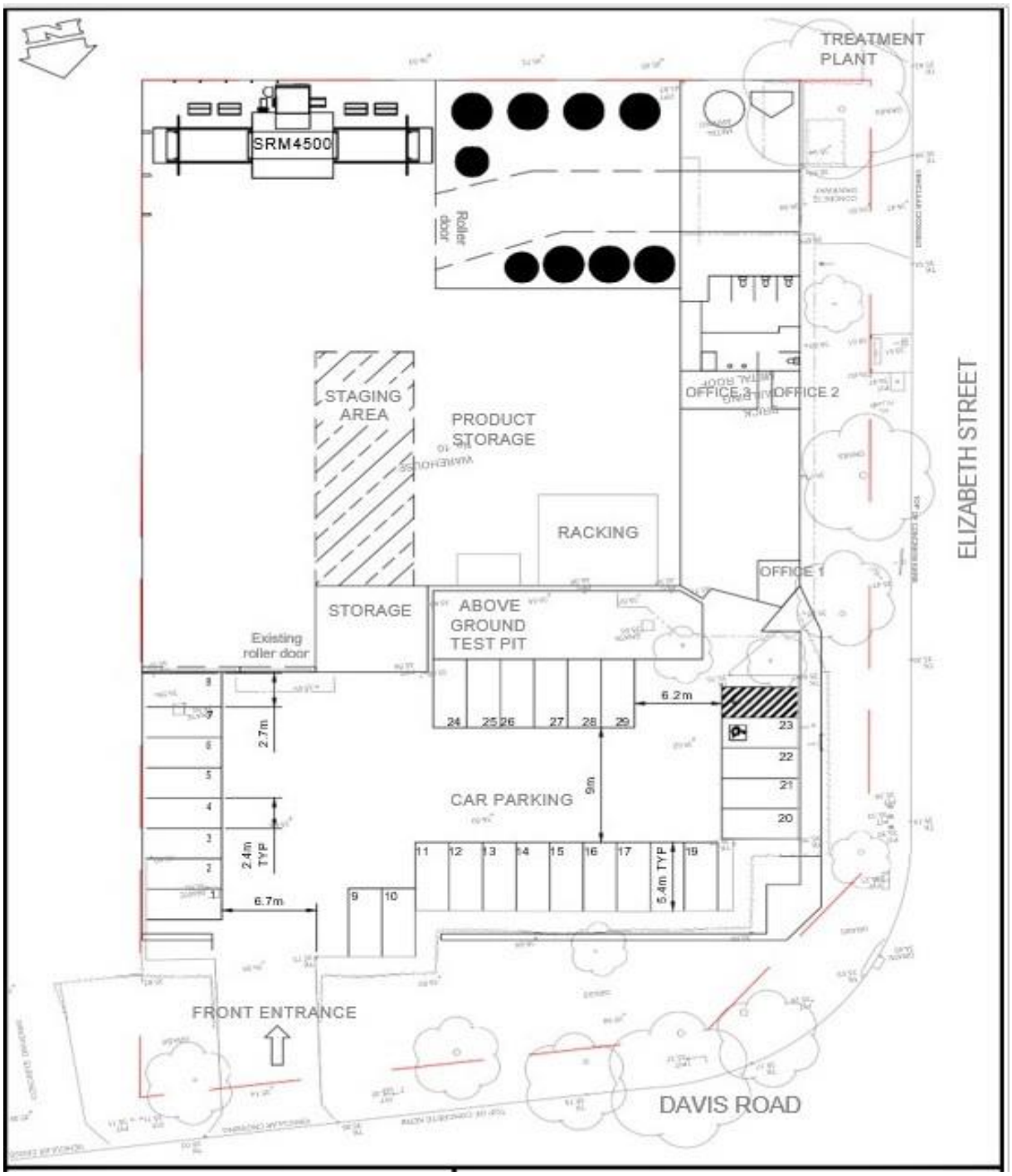
Halgan proposes to provide the liquid waste treatment plant inside the existing building at the south western end of the building near the Elizabeth Street driveway. Tankers will unload inside the building, within the facility. Sufficient queueing storage inside the building is available for four tankers.

The proposed hours of operation will be 4.00am to 4.00pm Monday to Friday with provision for emergency situations 24 hours a day, 7 days per week.

The facility will require a total of five new employees including three drivers and two in the facility. The facility's operation will be as follows:

- 3 trucks/tankers which will be parked on site overnight. These are/will be 8.3 metres long rigid trucks.
- At maximum capacity approximately 190 tonnes of liquid waste will be delivered and processed per day. This will require 15 tankers to deliver per day. It is Halgan's intention that it will allow other companies to bring liquid waste to be processed at the facility. These companies will use similar/the same tanker vehicles as Halgan.
- Halgan's 3 tankers will typically do 2 deliveries per day, with the rest made up by the other companies.
- The waste sludge to be removed from the facility (which will occur from time to time) can be transported in one of the 8.3-metre-long tankers and would typically leave the facility first thing in the morning.
- Vehicle access to the building will be via the existing roller door. A new internal roller door will be provided as part of the Proposal.
- With the provision of an accessible parking space, to AS2890.6 requirements, total parking for the Proposal will be 29 car spaces.
- The Halgan site with the proposed Liquid Waste Treatment facility will continue to use the existing driveway in Davis Road as an entry/exit driveway for cars.
- With the Proposal all trucks associated with the existing operation and the proposed liquid waste treatment facility will use the Davis Road driveway as the entry driveway and the Elizabeth Street driveway as an exit driveway (left turn out) with a one way drive through arrangement for all trucks, as shown on **Figure 6.9.**

Figure 6.9: Proposed Site Arrangement



6.6.2 Methodology

A Traffic Access and Parking Report (**Appendix H**) has been prepared by Transport and Urban Planning to assess the traffic, transport and parking impacts associated with the proposed liquid waste facility and will inform the preparation of the EIS.

The assessment has been undertaken in accordance with the SEARs requirements of Roads and Traffic Authority (now Transport for NSW (RMS)) Guide to Traffic Generating Developments October 2002.

Other technical standards/publications referenced in this assessment include:

- Austroads Guide to Road Design and RMS supplements;
- Austroads Guide to Traffic Management and RMS supplements;
- Austroads Guide to Traffic Management Part 12. Traffic Impacts of Developments;
- AS/NZS2890.1 (2002), AS2890.2 (2018) and AS/NZS2890.6 (2009).

6.6.3 Assessment of Traffic Impacts

6.6.3.1 Traffic Generation of Proposal

The increase in the traffic generation using the Halgan site due to the proposed Liquid Waste facility operating at full capacity will be:

- 5 additional light vehicle trips associated with the additional employees entering and exiting the site per day. The entry trips will occur between 3.30am (drivers) and 7.00am (plant operators) in the morning. The exit trips will occur between 4.00pm to 5.00pm.
- 15 tanker deliveries per day (i.e. 15 in/15 out). Halgan tankers (which number 3 in total), will exit the site at 4.00am and return twice during the day with the final return trip before 4.00pm.

Table 6.12 shows the maximum daily increase in vehicles generated by the proposed liquid waste facility, which will be a total of 40 vehicles a day consisting of 10 light vehicles, and 30 tankers.

The 30 tanker movements (15 in/15 out) assumes the facility is operating at 50,000 tpa, and the traffic generation during the day will be 1-2 tankers per hour entering and exiting the site.

Table 6.12: Weekday Traffic Generation (of the Proposal)

Type of Vehicle	In	Out	Total
Light Vehicles (Austroad Class 1 and 2	5	5	10
Tankers (Austroad Class 3)	15	15	30
Total	**20**	**20**	**40**

6.6.3.2 Traffic Impacts on Road Network

The assessment concludes that the impacts of the additional trips on the adjacent road network will be relatively minor, given the small number of vehicles generated by the Proposal (which number 48 vehicles per hour) spread over a number of roads.

To examine the impacts at the Davis Road/Elizabeth Street and Elizabeth Street/Victoria Street intersections and the Halgan driveway entrances in Davis Road and in Elizabeth Street, traffic modelling using the SIDRA 8 software has been undertaken.

As shown in **Figure 6.10,** The modelling adopted the existing traffic management and parking controls at both intersections and in Davis Road and Elizabeth Street along the frontage of the site, adjacent the site's driveways.

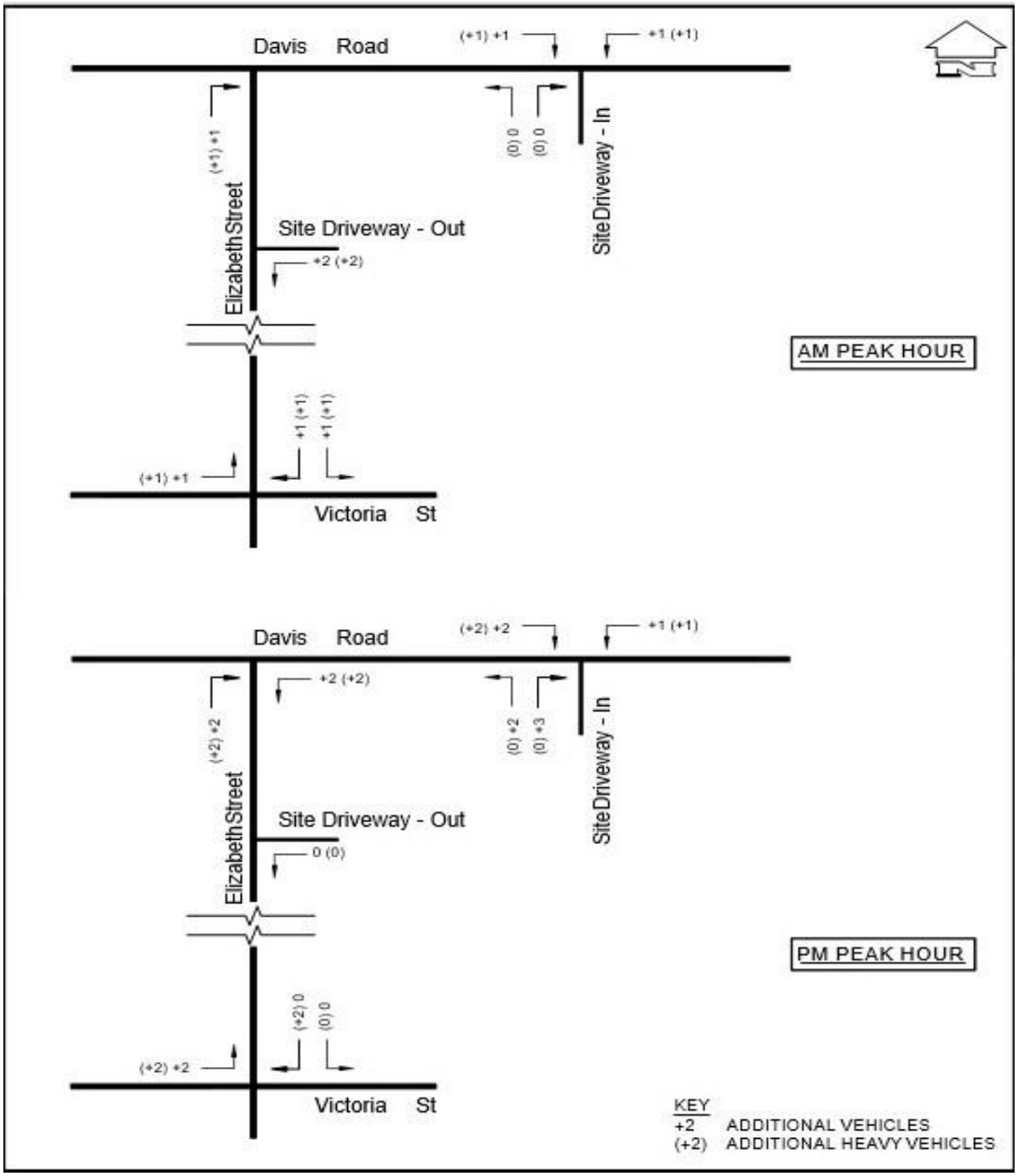
The modelling indicates:

- the intersection of Davis Road/Elizabeth Street will retain a Level of Service A operation with the Proposal in place, with little change in vehicle delays. Level of Service A represents a good operation;
- the intersection of Elizabeth Street/Victoria Street will retain a Level of Service E operation (same as existing), with a very small increase in vehicle delay. This demonstrates that the Proposal will have minimal impact on this intersection;
- the Halgan driveway entrance in Davis Road and the exit driveway in Elizabeth Street will retain a Level of Service A operation, which indicates a good operation.

The traffic impacts on the wider road network will also be small with no measurable impact likely to occur at any of the adjacent intersections, given the small increase in traffic movements associated with the Proposal.

The construction traffic will therefore have minor impacts on the road system.

Figure 6.10: Additional Traffic in AM and PM Peak Period



6.6.3.3 Road Safety

The Proposal is not expected to have any negative impacts on road safety on the road network.

The Proposal will generate relatively small volumes of traffic. The Proposal will use the existing driveways to the site which are assessed as satisfactory in terms of sight distance. All trucks exiting the Elizabeth Street driveway will turn left out of the site.

Traffic controls at the intersection adjacent the site can accommodate the additional traffic that will be generated by the Proposal during its construction and operation.

Traffic modelling of principal intersections adjacent the site shows that the Proposal will have no impact of the level of service of these intersections and minimal increase in vehicle delay.

6.6.3.4 Cumulative Traffic Impacts

The Proposal will have very small traffic and transport impacts, including cumulative impacts on the road network and public transport operations in the area. As noted previously, the Proposal requires 5 employees and will generate 40 vehicle trips a day (i.e. 20 in / 20 out). Ten (10) of these trips will be light vehicles (i.e. 5 in / 5 out) and the remaining 30 trips (15 in / 15 out) will be medium size tankers 8.3 metres long.

The additional 5 employee trips will have no measurable impact on public transport, and/or bicycle and pedestrian network.

6.6.4 Parking and Internal Operation

6.6.4.1 Internal Operation

The Proposal at maximum capacity will deliver and process 190 tonnes of liquid waste, which is 15 tankers per day, over a 12-hour period. Halgan's own trucks will total 6 tankers per day (i.e. 2 deliveries each truck per day) with the remainder made up of vehicles from other companies. Halgan will manage this facility so that tankers are spread over the day to reduce peaks and congestion.

The frequency of tankers arriving at the facility would typically be 1-2 tankers per hour. Most tankers will require 15 minutes to unload, with a maximum time of 20 minutes.

Figure 6.11 shows an 8.3-metre-long tanker entering via Davis Road, unloading at the facility, and then exiting the site to Elizabeth Street via a left turn. Manoeuvring is satisfactory and fully in accordance with AS2890.2.

In the event that additional tankers arrive at the facility while a tanker is unloading, the facility can easily accommodate this. Hence the Proposal's access operations and manoeuvrability are satisfactory even during peak hours.

Figure 6.12 shows that up to 3 additional tankers can be accommodated within the building while another truck is unloading at the facility (i.e. total of 4 tankers).

It is therefore considered that the Proposal will have adequate queueing storage area within the building to easily accommodate the maximum demand.

Halgan will park its 3 tankers on site overnight, and **Figure 6.13** shows that this parking can be easily accommodated within the building.

Figure 6.11: 8.3-meter-long Tanker Maneuvering on Site

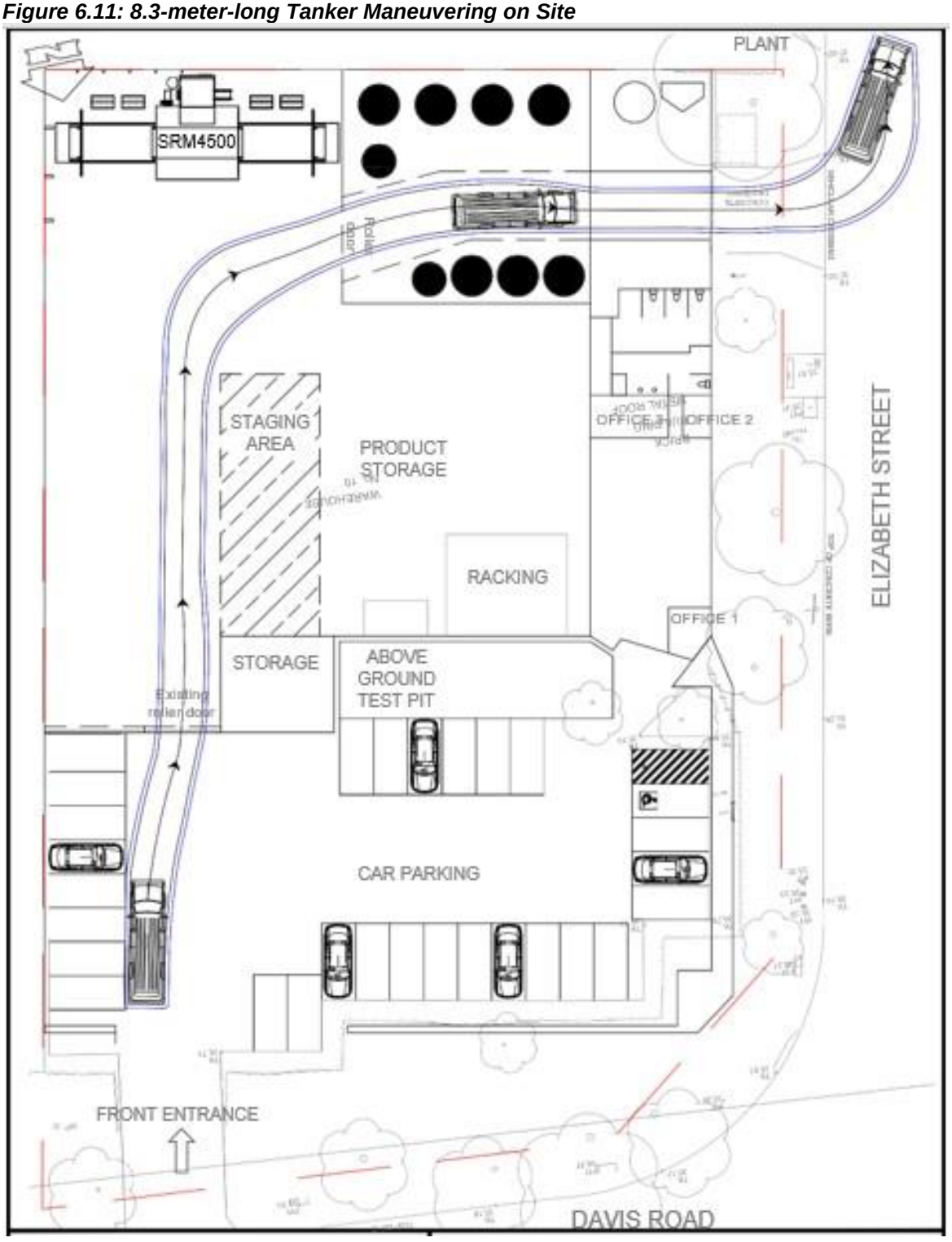


Figure 6.12: Tanker Queuing Capability Inside Building

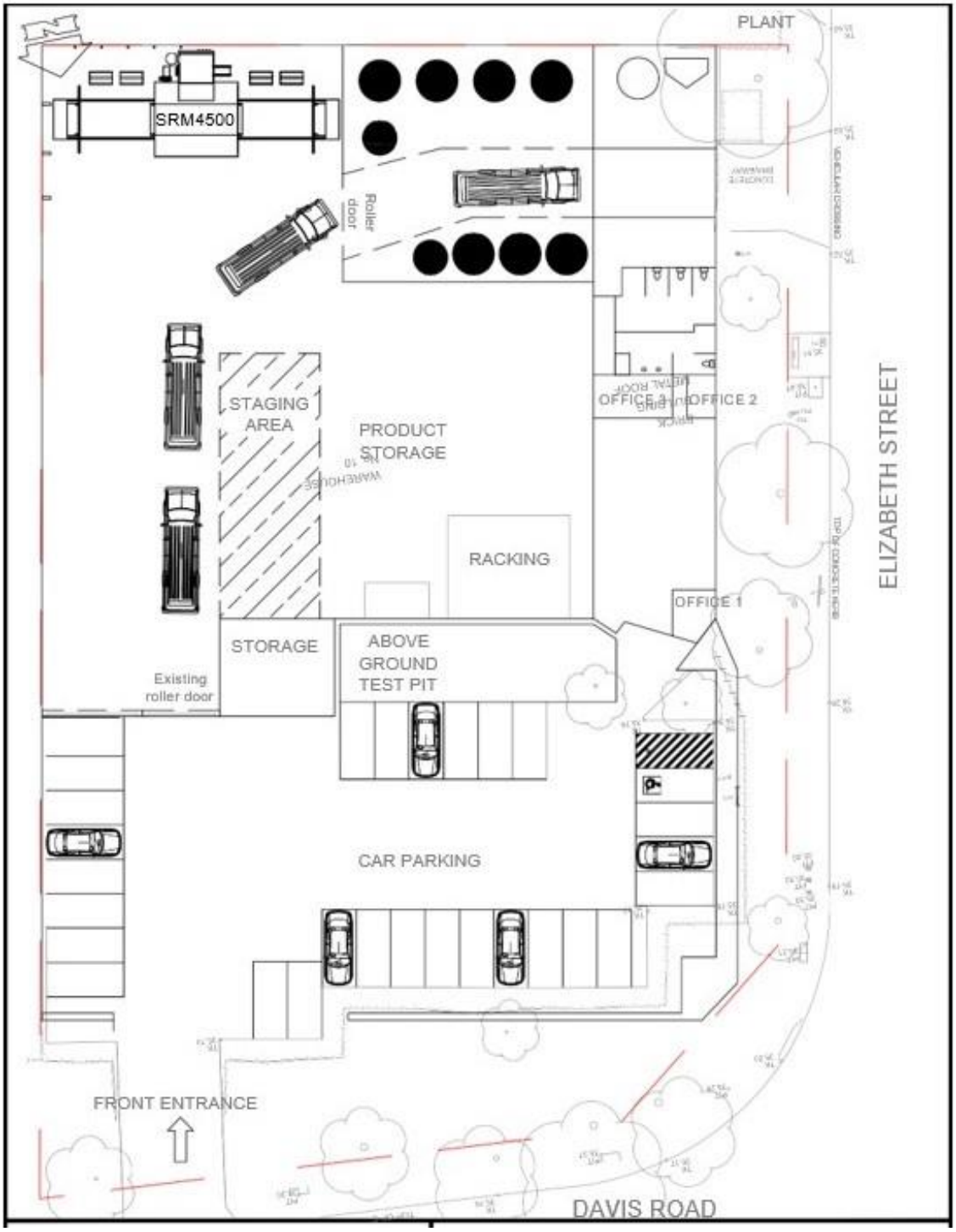
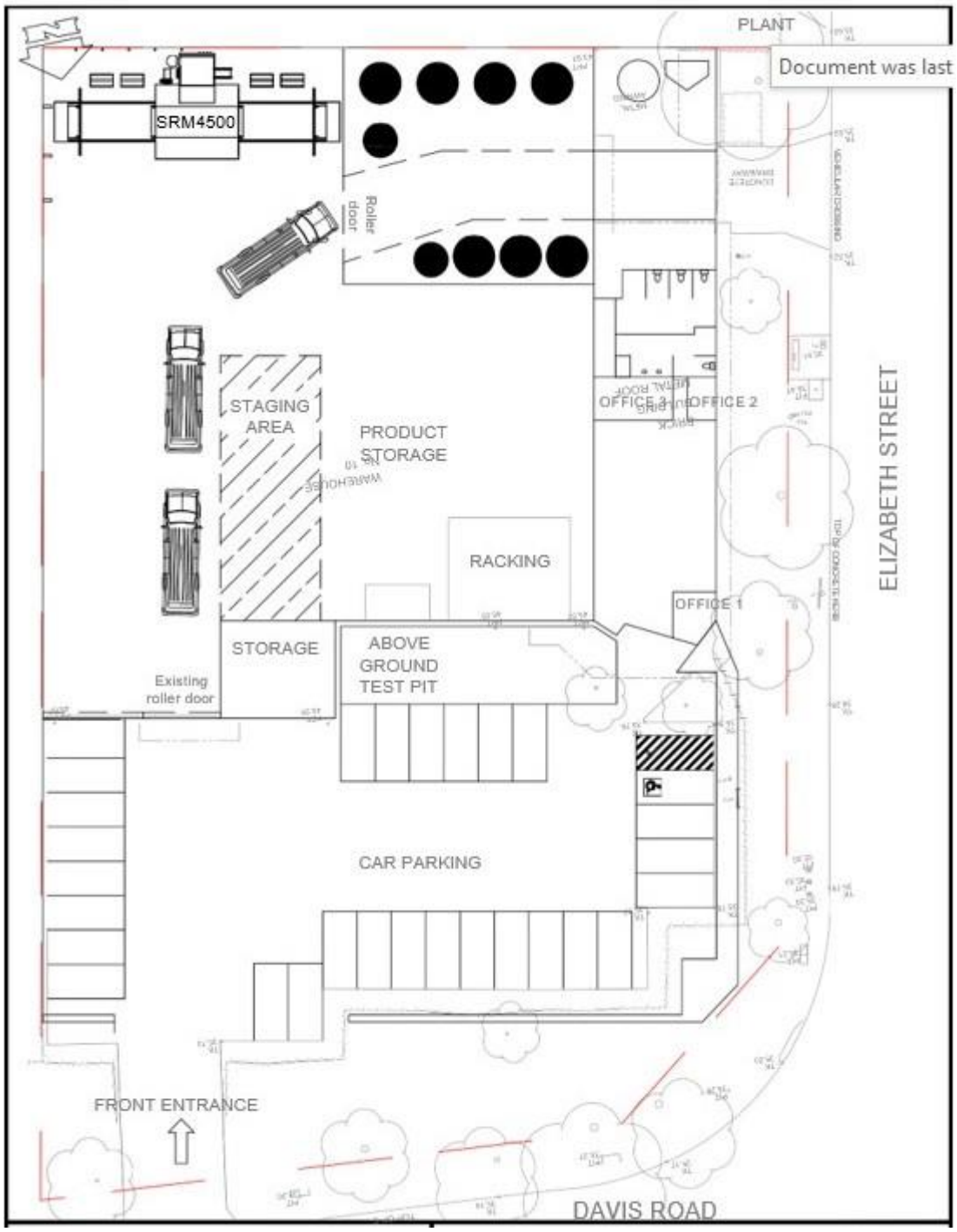


Figure 6.13: 8.3-meter-long Tanker Overnight Parking

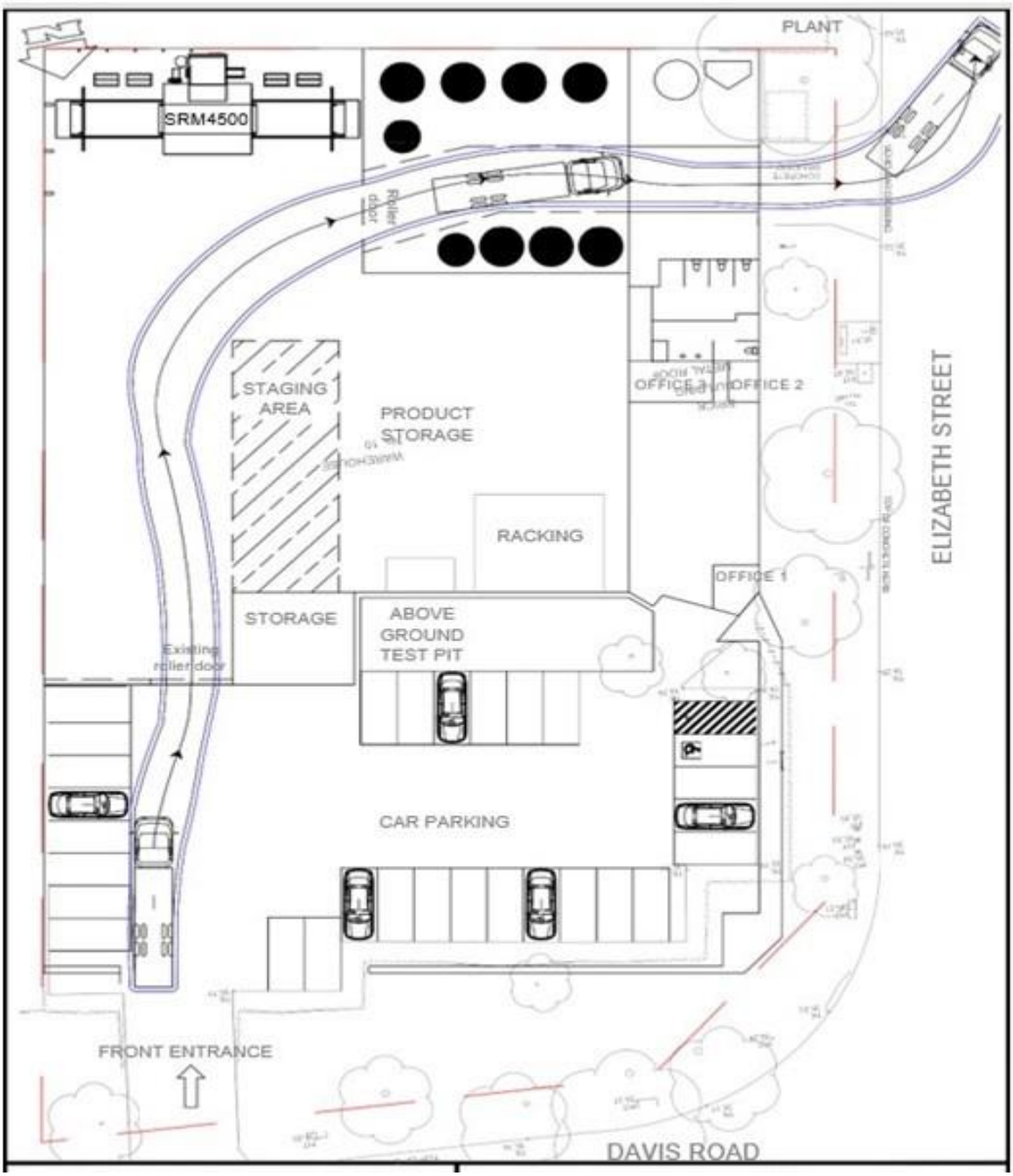


Storage and distribution of plastic water treatment tanks (including possible future manufacturing) receives 3-4 deliveries per truck (i.e. maximum of one (1) per day) in a range of rigid trucks up to an HRV, in the mornings, with trucks on site for around 10 minutes.

Trucks unload within the building, with a 12.5-metre-long HRV entering the site and then the building from Davis Road, manoeuvring within the building and exiting into Elizabeth Street via a left turn.

Swept path analysis (refer **Figure 6.14)** shows that the manoeuvring is satisfactory and fully in accordance with AS2890.2.

Figure 6.14: 12.5-meter-long HRV Maneuvering on Site



6.6.4.2 Car Parking Assessment

The Proposal will retain 29 parking spaces, including one (1) disabled parking space. This is a reduction of one (1) space from the existing parking capacity within the car park due to revised standards (AS2890.6) for disabled parking.

Fairfield DCP City Wide 2013 does not have a parking rate for waste or resource recovery recycling facilities. Therefore, the parking assessment is based on a merit-assessment of the operational characteristics of the facility and the existing operation of the Halgan industrial use.

Halgan currently employs 13 people on the site with 6 people in the warehouse and 7 people in the office. The proposed Liquid Waste facility will employ a total of 5 people with 3 drivers and 2 operations staff.

Total employees and cars on site requiring parking for the existing operation plus the Proposal will be a maximum of 18 people and or 18 cars.

As noted above, the Halgan site will retain 29 car spaces including one (1) disabled space, which is more than adequate for employees and any visitor parking.

The car park layout complies with AS2890.1 and AS2890.2 as appropriate. The Davis Road access will be used by cars for entry and exit. Bicycle parking space is available if required.

6.6.5 Mitigation Measures

Controls should be implemented during construction and operation to ensure all vehicles exiting the site into Elizabeth Street must turn left. Controls to include directions, pavement markings and signage.

6.6.6 Conclusions

This Traffic Assessment documented the traffic, transport and parking impacts of the proposal by Halgan to provide a Liquid Waste facility at its site at 10 Davis Road Wetherill Park, and found that:

- The facility will employ an additional 5 employees (3 drivers and 2 in the facility) and generate an additional 10 light vehicle trips (5 in / 5 out) and 30 medium size tanker trips (15 in / 15 out) per day;
- The proposed facility will have relatively minor impacts on the road network adjacent the site and traffic conditions on the road network will be satisfactory, with the Proposal in place;
- The site and facility will have sufficient queueing storage within the building to accommodate the maximum demand of the tankers unloading at the facility. Tanker demand will be 1-2 tankers per hour. The facility can accommodate 4 tankers within the building. The average service time for each tanker will be 15 minutes;
- The facility, which has 29 off-street car-spaces including one (1) disabled parking space to AS2890.6 requirements, will have adequate car parking to accommodate its maximum car parking demand;
- Halgan has sufficient parking at the facility for its tanker fleet overnight. Other trucks that need to be accommodated on site include a 6.4-metre-long SRV, which can be accommodated in the external car park;
- The driveways and internal operation with regard to trucks entering and exiting the

site and manoeuvring within the site is fully compliant with AS2890.2;

- The car park spaces and adjacent aisle widths on the site are compliant with AS2890.1 and AS2890.6;
- As the proposed development is a relatively small industrial type development the Proposal will have minimal cumulative impacts on the adjacent road network, public transport, bicycle network and pedestrian network in the area;
- As the Proposal has relatively minor impacts, no upgrades to the road, public transport, bicycle and or pedestrian network are required;
- Construction impacts of the Proposal have been examined and these impacts are assessed as satisfactory.

6.7 HERITAGE

6.7.1 Existing Setting

A search of the relevant registers and visual inspection of the site indicates that there are no heritage items of conservation value. A number of items associated with Prospect Reservoir were identified in the wider vicinity however these would not be impacted by the works.

A search of the NSW Office of Environment and Heritage AHIMS (Aboriginal Heritage Information Management System register on 19 November 2019 indicated that there were no registered sites or relics on, or in the immediate vicinity of, the property (refer **Appendix E**).

6.7.2 Assessment

No impacts from the installation of the works are anticipated on any indigenous or non-indigenous heritage items, as no excavation is required.

NSW DPIE Aboriginal Cultural Heritage Impact Assessment Guidelines sets out the requirements for assessing potential impacts on Aboriginal cultural heritage for development applications. The proposed works have been considered in accordance with the DPIE Guidelines and the following OEH guidance:

- Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010)
- Guide to investigating, assessing, and reporting on Aboriginal cultural heritage in NSW (OEH 2011)
- Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010)

An exemption was sought from the requirements to carry out an Aboriginal Cultural Heritage Impact Assessment (ACHAR) because:

- the site has been highly modified by past use;
- the proposed works do not entail excavation or disturbing the site ground surface;
- the proposed works entail development of an existing building or structure that does not exceed the current building footprint;
- a recent AHIMS search indicated that there were no registered relics or sites in the vicinity of the property.

Therefore, it is considered unlikely that any indigenous heritage items would be present.

6.7.3 Mitigation Measures

In the event of excavation being required due to unforeseen circumstances and a potential heritage item being encountered, works would immediately cease, and the site secured until investigations have been carried out.

6.7.4 Conclusion

This assessment has concluded that it is highly unlikely that any items of indigenous or non-indigenous heritage items are present at the site or would be affected by the works.

6.8 VISUAL AMENITY, SOCIAL AND COMMUNITY ASSESSMENT

6.8.1 Existing Setting

The Smithfield-Wetherill Park Industrial Estate is characterised by industrial buildings and associated structures ranging from processing and manufacturing plants, wholesale, transport, and service firms. 10 Davis Road consists of paved parking and driveway areas and a large utilitarian building with associated office and meeting room areas. Small landscaped areas are located between the driveway apron and north-western perimeter fence.

The facility has street frontage to Davis Road and Elizabeth Street, consisting of the wide driveways and verges with some remnant eucalypts.

No adjacent land uses will be able to directly view the proposed operations, as they will be carried out within the existing building.

The nearest residential areas are located across approximately 1.4 km from the site and have no direct view of the site. 10 Davis Road is located within an industrial precinct away from residential and recreational activity areas.

6.8.2 Assessment

6.8.2.1 Construction Impacts

Construction will be primarily carried out within the existing building and be of relatively short duration. Construction is anticipated to have negligible impact on the surrounding properties and is compatible with the adjacent industrial land uses.

6.8.2.2 Operational Impacts

The proposed development is consistent with State and Regional planning instruments and will facilitate an increase in recycling and beneficial reuse of waste. Subject to careful design, equipment selection, effective operation, maintenance, and housekeeping,

The air discharge stack would protrude approximately one metre above the existing roof line and be of similar colour and finish to the existing roof finish. The stack is not anticipated to be offensive or inconsistent with the local character of the precinct, and it is considered the visual amenity of the area will not be adversely impacted.

There would be no overshadowing of neighbouring land uses or obstruction of views.

6.8.2.3 Mitigation Measures

The air discharge stack would be of similar colour and finish to the existing roof to minimise visual impact.

6.8.3 Conclusion

The proposed development would be primarily carried out within the existing building on site. External changes would be the installation of an air discharge stack one metre above the existing roofline would be designed to match the existing building.
The proposed development is therefore not anticipated to have any adverse impacts on visual and public amenity.

6.9 PUBLIC HEALTH & SAFETY

6.9.1 Introduction

The management of waste streams from collection through to beneficial reuse or disposal requires consideration so that appropriate design and safeguards are implemented to prevent public health and occupational health and safety risks.

This section also assesses the human health risks as required by the Project SEARs. An assessment of the potential impacts to employees at the facility and any off-site impacts including:

- details of measures to manage the exposure of employees to contaminants including the use of appropriate personal protective equipment and engineering controls at the facility to reduce exposure;
- details of health monitoring of employees and awareness and education measures;
- preventative measures for community exposure from the off-site transfer of contaminants;
- details of work health and safety system consistent with the requirements of the Work Health and Safety Regulation 2011.

6.9.2 Potential Public Health Risks associated with acceptance of Liquid Waste

Potential public health implications for the proposed development are further reduced by the position of the facility within an industrial precinct, which is located more than 1km from the nearest residential area. The material would be delivered in enclosed tankers and treatment process fully automated and enclosed under air quality control systems.

The adjacent premises are occupied by industrial businesses (e.g. transport, manufacturing), at adequate separation distances from the site. There are no recreational areas nearby and the access roads are seldom used by the public.

In consideration of this proposal and experience with existing similar facilities, the following potential public health risks have been identified to be managed with respect to the construction and operation of the proposed development:

- unloading, handling and storage on site;
- airborne emissions from waste handling – odour, dust, and airborne pathogens;
- stormwater management;
- wastewater management;

- control of vermin and insect pests;
- security.

Experience operating with liquid waste at other facilities, such as existing plants in Wetherill Park and the broader Sydney area, demonstrates that there should be no potential chronic or acute health risks associated with a well-managed process.

The Halgan Liquid Waste facility will be operated in accordance with the "Work Health and Safety Regulation 2011". The following procedures will be implemented:

- Representation and participation: employees will be required to participate in onsite Safety Audits to ensure operations are conducted in accordance with the Regulation;
- Issue Resolution: issues and problems that arise will be dealt with immediately in conjunction with the safety committee members. Appropriate action will be taken to minimise employee dissatisfaction and maintain stability within the workplace;
- Managing risks to health and safety: risk assessment will be conducted prior to the commencement of any new task or operation. Risk assessments will be reviewed regularly in conjunction with workplace inspection conducted by the Safety Officer;
- Information, training, and instruction: all employees will be site inducted prior to commencement. Operating instruction will be provided to ensure employees are competent and aware of all site operating procedures;
- General working environment: risk assessment will be conducted prior to the commencement of any new task or operation;
- First Aid: the site will contain the appropriate first aid requirements. The first aid contents will be audited on a regular basis to ensure all components are in date and safe for use. A first officer will be appointed for the site;
- Emergency Plans: an Emergency Plan (PIRMP) has been developed to ensure employees are trained and aware of correct actions to be taken in the case of an onsite emergency;
- PPE: all employees will be provided (and required to wear) supplied / approved PPE. Replacement PPE will be available at all times.

Table 6.13 below outlines the measures developed by Halgan and designed to mitigate health risks associated with the Proposal.

Aspect of Operation	Nature of Risk	Potential Exposure Pathway	Proposed Safeguards
Operation			
Waste collection and transport to and from site	Traffic hazards and exposure to wastes	Traffic accidents, inhalation, and physical contact with wastes	▪ Wastes transported in enclosed tanker trucks ▪ Compliance with EPA and WasteSafe tracking system as required. ▪ Training in appropriate procedures provided to operators and truck drivers, including emergency and spill response
Unloading, handling and storage on site	Exposure to waste-related pathogens and attraction of insects and vermin	Inhalation and physical contact with wastes. Secondary impacts through pathogen-spreading vectors such as insects and vermin	▪ Products transferred as soon as possible (generally 12-hour turn over max 24-hour residence time) ▪ Unloading via vacuum. Receival bays and storage areas designed to be well ventilated, contained with bunds in accordance with NSW EPA and WorkCover requirements, and secure from vermin and insect pests ▪ Internal liquid transfer via hard plumbed pipework ▪ Areas maintained with best practice housekeeping standards ▪ Training of operators in waste handling and emergency and spill response procedures ▪ Liquid wastes to be kept separate from other waste types.
Employee Exposure to contaminants	Exposure to pathogens	Physical contact or inhalation, or exposure to vector-related pathogens	▪ All tanks will be vented with any “off gases’ directed to an odour management system, scrubbed and treated prior to discharge to atmosphere ▪ All employees will be provided industry standard Personnel Protective Equipment to ensure their safety while on site. ▪ The liquid treatment facility will be constructed to ensure employees are not exposed to or come into contact with waste being received or treated at the site. ▪ Once the liquid waste is transferred from the delivery vehicle to the receival tank all process within the facility are automated. ▪ All tanks are hard plumbed to eliminate employee interaction with material. The system will be designed run via a PLC process with employees managing transfer and process via a touch screen system. ▪ In the event that employees are required to override the automated system they will be required to wear appropriate PPE to safeguard against any part of the body coming into contact with liquid waste. ▪ Prior to commencing operation in the treatment facility all employees will be inducted and provided full training for the safe operation of the treatment facility. ▪ Regular site audits will be conducted to ensure operators are working in accordance with company policies and procedures. ▪ annual health monitoring of employees.
Wastewater management	Exposure to waterborne pathogens	Physical contact	▪ All wastewater to be discharged to Sydney Water sewer via hard plumbed pipework

Aspect of Operation	Nature of Risk	Potential Exposure Pathway	Proposed Safeguards
Stormwater management	Contamination	Physical contact	▪ Prevention of stormwater entering process and handling areas through use of roofs and bunds.
General traffic and road safety	Traffic hazards and exposure to wastes	Traffic accidents and physical contact with waste	▪ Training in appropriate procedures provided to operators and truck drivers, including emergency and spill response ▪ Transport by enclosed, suitable trucks ▪ Clear signage around site to define what traffic is permitted in what areas on site
Control of vermin and insect pests	Exposure to vector-related pathogens	Physical contact	▪ Use of professional pest control contractors and systems as appropriate (e.g. Rentokill or similar) to eliminate insects and rodents etc; ▪ Design incorporating proper site drainage to prevent stagnant wet areas that attract mosquitoes and other insect pests ▪ Training of all staff in correct handling, use of appropriate PPE, and control of vectors; ▪ Rigorous monitoring and auditing of the effectiveness of the above controls; ▪ Inspections and learnings from many other waste treatment facilities.
Preventative measures for community exposure	Community health and amenity	Exposure to vector-related pathogens. Offensive odour.	▪ Community exposure is deemed low die to the air management controls that will be operational within the facility. ▪ Under normal circumstances exposure issues are related to uncontrolled storage or transfer of waste. The facility will be constructed within and existing building ensuring all “fugitive” odours are captured and managed via the odour control systems. ▪ The community will not be aware of the existence of the facility as the overall operations will be within a secured building. ▪ site boundary checks will be completed daily to ensure there are no detectable odours at the site boundaries which could impact adjoin properties or the public.
Security	Public access to site	Accidents and physical contact with wastes	▪ Restricted public access ▪ site bounded by appropriate security fences, with 24-hour security patrols and 24hr camera ▪ Warning signs displayed at appropriate locations around site

Table 6.13: Halgan’s measures to mitigate health risks associated with the Proposal

6.9.3 Conclusion

The results of this preliminary health impact assessment indicate that public and occupational health and safety risks associated with the proposed changes will be negligible if the safeguards outlined above are implemented.

As well as complying with stringent OHS guidelines, Halgan will implement an Occupational Health and Safety Management System, certified to AS 4801, and consistent with the requirements of the *Work Health and Safety Regulation 2011* and an Environmental Management System in accordance with ISO-14001.

Halgan's Environment, Quality and Safety Department are responsible for the maintenance and auditing of these systems with the facility operation and maintenance teams.

With the above mitigation measures and implementation of a rigorous HSE Management System, the acceptance and treatment of liquid waste to the site at 10 Davis Road facility is not anticipated to pose any potential risks to workers or to public health and safety.

6.10 WASTE, ENERGY & RESOURCES

6.10.1 Energy Use

The existing facility has a power consumption of approximately 3000 kWh per month**,** which would be expected to increase by less than 10% as a result of the proposed changes. Installation of a solar photo-voltaic rooftop system would be investigated to reduce energy consumption and greenhouse gases.

Trucks use diesel fuel, with diesel and increasingly, an electric powered plant used for transporting materials around the site. No fuel storage on site is proposed. The administration facilities and amenities require electricity. Should consent for manufacturing of plastic water treatment tanks be sought in the future, the primary fuel for the moulding process would be gas.

6.10.2 Waste Generation

Halgan has a comprehensive waste management system in place with transport done by a commercial provider off-site. The proposed changes will not substantially alter the waste types and recovery processes from general waste and recyclables.

The proposed changes to the facility would see the acceptance of up to 50,000 tpa of liquid waste, with treated residue transported off-site for beneficial reuse, and treated water discharged to sewer in accordance with the Sydney Water Trade Waste Agreement.

Construction waste impacts are anticipated to be primarily packaging and of small volumes. A waste management plan has been prepared (refer **Appendix L**)

The proposed changes to the facility are an important component of sustainable waste management through resource recovery.

6.10.3 Greenhouse Gas Impact Assessment

The following guidelines and regulations have been used for the assessment of Greenhouse Gas (GHG) emissions, in accordance with the SEARs:

1. The Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCSRTE) National Greenhouse and Energy Reporting

System Measurement: Technical Guidelines for the Estimation of Greenhouse Gas Emissions by Facilities in Australia (NGER Technical Guidelines) (2013).

2. Guidelines for Energy Savings Action Plans (DEUS 2005).

Direct and indirect emissions sources can be delineated into three 'scopes' (Scope 1, Scope 2 and Scope 3) for GHG accounting and reporting purposes.

These scopes are associated with operational boundaries as outlined below:

- **Scope 1**. Direct Greenhouse Gas Emissions are direct GHG emissions from sources that are owned or controlled by Halgan. Scope 1 can include Halgan-owned vehicles, and other direct sources;

- **Scope 2**. Electricity Indirect Greenhouse Gas Emissions account for GHG emissions arising from purchased electricity consumed on-site. Scope 2 emissions are considered indirect as they occur at an off-site facility where electricity is generated;

- **Scope 3**. Other Indirect Greenhouse Gas Emissions are those that are a consequence of the Proposal but occur away from the site and are not under Halgan. control. Scope 3 emissions are an optional reporting category that allows for the treatment of all other indirect emissions.

As outlined in **Section 5**, the Proposal elements include:

- Construction of a liquid treatment facility within the existing building, including electricity consumption and fuel consumption for transport of materials and equipment;

- Acceptance and treatment of 50,000 tpa of liquid grease trap waste, including electricity consumption (plant, processing, and machinery) and fuel consumption by plant and for the transport of waste.

6.10.3.1 Construction

Diesel would be the primary fuel used in construction equipment such as excavators and trucks (Scope 1).

Emissions from electricity (Scope 2) are expected to be negligible and associated with construction staff using existing amenities.

Indirect emissions (Scope 3) would be present in the form of embedded emissions associated with construction material, such as steel and concrete.

GHG emissions during the construction phase are considered immaterial when compared to the GHG emissions associated with the waste management processes for the operational phases of the Proposal. As such, GHG emissions during construction have not been quantified for this assessment.

6.10.3.2 Operations

The main sources of GHG emissions from the proposed facility would be associated with waste management.

On-site electricity use would increase for operation of the treatment facility including the weighbridge, treatment units, pumps, and lighting. The existing facility and associated amenities consume approximately 3000kWh per month, and this would not be expected to increase materially as a result of the proposed changes (site hours remain the same, as does the building footprint, lighting etc.). Therefore an increase in electricity demand has not been considered under the assessment of greenhouse

gas emissions from the Proposal, and would be more than offset by the installation of rooftop solar photo-voltaic (PV panels), A 40kw PV system would largely offset site electricity use.

There will be increased fuel demand for several machinery types used on-site including front end loaders and excavators, due to the processing of the liquid waste.

Waste transportation of up to 50,000 tpa of liquid waste would result in an increase in fuel consumption GHG emissions. However, this would need to be transported to other facilities, if not taken to Halgan, hence there would be no net increase. Similarly treated product transported to beneficial reuse would not result in a net increase.

6.10.4 Mitigation Measures

Mitigation Measures that will be implemented on-site during construction of the Proposal to minimise energy usage and the number of vehicles required include the following:

- Idling time of on-site plant and equipment would be limited;
- Only lighting left on overnight around the site office will be security or emergency/access lighting;
- Earthmoving equipment and on-site vehicles will be fitted with exhaust controls in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2010;
- Implement waste management plan **(Appendix L**) including induction, segregation of waste streams, recycling, and procurement process, during construction and operation.

The following energy efficient features would be adopted to reduce emissions during operation:

- Installation of a solar photo-voltaic rooftop system would be investigated to reduce energy consumption and greenhouse gases;
- All trucks leaving the site carrying waste will be filled to the maximum reasonably practicable to reduce the number of traffic movements required;
- Pumps, plant, and equipment to be selected and maintained to reduce energy use;
- EURO 5 standard for Halgan trucks;
- Timer switches and light sensors: where appropriate, lights within the transfer building would be fitted with timer switches and external lighting would be fitted with a light sensor.

6.10.5 Conclusions

This assessment concludes that the proposed facility would:

- Generate minimal additional waste during construction and operation. Segregation and recycling practices would continue, and treated grease trap waste beneficially reused;
- Additional energy use and green house gas emissions would be minimal and largely offset if roof top solar PV panels are installed.

6.11 ECONOMIC AND FINANCIAL ASSESSMENT

6.11.1 Impact Assessment

6.11.1.1 Financial Assessment

Praesto Consulting was commissioned to prepare a certification of the Capital Investment Value (CIV) in accordance with DPIE Guideline PS13-002. The certification reviewed quotes and quantities and concluded the CIV of $1.3 million was fair and reasonable (refer **Appendix J**).

As described in **Section 4,** the proposed changes will allow Halgan to meet growing and changing market needs, better servicing both commercial and industrial sectors. The existing facility at 10 Davis Road is considered most suitable for these activities because of the following:

- The site is compatible with adjacent industrial land uses and has limited application for other types of industry;
- It enables reuse of existing plant, equipment, and site facilities;
- Is centrally located and close to arterial roads to decrease transport costs and time;
- It enables generation of beneficial products for recycling and agriculture;
- Provides benefits to industrial and commercial clients through effective management of waste products.

The financial benefits outlined above justify Halgan's investment to make the proposed changes.

6.11.1.2 Economic Assessment

Consistent with the principles of ESD, the economic evaluation compares environmental and social costs and benefits of the project in an economic context. The proposed development will have the following benefits:

- Reduction in environmental risks associated with unlawful liquid waste discharge to the sewer system and ultimately to receiving waters;
- Recycling benefit to the wider Sydney metropolitan area via commercial and industrial clients and production of useful by-products for agricultural or industrial purposes

Consistent with the objectives of Fairfield LEP (2013) and Fairfield City Wide DCP (2013), the proposed development will complement the existing industries in the Smithfield-Wetherill Park Industrial Estate.

6.11.2 Conclusion

The proposed changes represent the optimal financial option for Halgan Liquid Waste. By improving their resource recovery capability, the proposed changes will improve Halgan's competitiveness, with positive economic implications for the local and wider Sydney economy. The economic benefits outlined above indicate that the Proposal represents a desirable course of action for the community of Sydney as a whole.

6.12 HAZARD AND RISK ASSESSMENT

6.12.1 Introduction

A review of the proposed facility has been carried out for the Proposal in accordance with *Applying SEPP 33 Hazardous and Offensive Development Application Guidelines.* This assessed the liquid waste receival, storage, treatment and load-out.

The SEARs for the Proposal (**Appendix A**) require the following assessment to be carried out:

- Hazard and Risk: including preliminary hazard analysis (PHA) adopting a Level 1 qualitative risk analysis as per the Department's Multi-level Risk Assessment and prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'.
- The PHA must verify potential dust explosion hazards within the building, identify any additional hazards arising from the proposal, verify the existing safeguards and identify any additional safeguards to control the risks from the facility as a whole.

In addition, NSW EPA requirements include:

1. Where preliminary screening indicate that the project is potentially hazardous, provide a Preliminary Hazard Analysis (PHA) in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis and Multi-Level Risk Assessment and or No 33 Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quality and location of all dangerous goods and hazardous material associated with the development;
2. Provide details of procedures for the assessment, handling, storage, transport, and disposal of all hazardous and dangerous materials used, stored, processed, or disposed of at the site, in addition to the requirements for liquid and non-liquid wastes;
3. The containment of liquids to be in accordance with EPA's guidelines section 'Bunding and Spill Management' and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge;
4. Detail fire/emergency measures and procedures;
5. Detail contingency plans for any potential incidents or equipment failure during the operation of the facility that may result in environmental harm.

6.12.2 Environmental Risk Assessment

Halgan carried out environmental risk assessment based generally upon the methodology in Standards Australia's HB 203:2006 Environmental Risk Management, Principles & Process, Australian Standard AS/NZ 4360:2004 Risk Management and AS/NZS ISO 31000:2009 Risk Management, Principles & Guidelines (refer Section 6.1)

The analysis categorised levels of risk for a given event based on the significant effects (consequences) and manageability of those effects (likelihood).

The risk assessment informed the concept development of the Proposal and identified the key risks to be addressed in studies for the EIS, as documented in the SEARs Scoping Report, as follows:

- Odour and air quality;
- Traffic, access, and parking;
- Liquid waste storage, treatment, and containment.

Based on Fairfield City Council's flood modelling for Wetherill Park, as set out in **Section 149** of the Certificate for the site (**Appendix B**), flood risk was later identified and included in the key risks identified in the environmental risk assessment.

Studies for the above have been included in this EIS where appropriate. Waste storage and containment has been addressed in the concept design.

6.12.2.1 Assessment for Potentially Hazardous and Offensive Issues

SEPP 33 – Hazardous and Offensive Development aims to allow for the assessment of the environmental and safety performance of hazardous and offensive or potentially hazardous and offensive development and seeks to:

- Amend the definitions of hazardous and offensive industries where used in environmental planning instruments;
- Render ineffective a provision of any environmental planning instrument that prohibits development for the purpose of a storage facility on the ground that the facility is hazardous or offensive
- In determining whether a development is a hazardous or offensive industry, ensure any measures proposed reduce the impact of the development, are considered;
- When considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive, and to impose conditions to reduce or minimise any adverse impact.

Under SEPP 33, potentially hazardous and potentially offensive industries is defined as:

"the development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality, to human health, life, or property; or to the biophysical environment and includes a hazardous industry and a hazardous storage establishment."

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

This would be in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land and includes an offensive industry and an offensive storage establishment.

The objective of 'Applying SEPP 33: Hazardous and Offensive Development Application Guidelines (DoP, 2011)' is to provide advice on implementing SEPP 33 by:

- Clarifying the type of development to which the policy applies, particularly in respect to storage establishments;
- Establishing a risk screening process with screening thresholds and providing a discussion of factors that can cause a development to be potentially hazardous, even when screening thresholds are not exceeded;
- Listing all screening thresholds and specifying separate screening thresholds for residential/sensitive land uses and other less sensitive uses, where appropriate.

The risk screening procedure from Applying SEPP 33 identifies that if a proposal is a 'potentially hazardous industry', a PHA will be undertaken in accordance with SEPP33, Applying SEPP 33 and Hazardous Industry Advisory Papers.

Using the SEPP 33 Guidelines, relevant information for the proposed development is set out in **Table 6.14** below:

Table 6.14: Comparison of Proposal with Existing Development Consent

Material	Quantity	DG Class	Type of Store*	Distance (m)**	Annual Road Movements	
					Number	Size
Liquid Grease Trap Waste	3 x 40KL	N/A	Bulk Steel Tanks	>2	7500 (in) 260 (out)	12.5t 12.5t
Lime Slurry	2 x 20KL	N/A	Bulk Steel Tanks	>2	100 (in)	12.5t

* Distance in metres from the boundary. ** Storage of Flammable and Combustible Liquids shall be in accordance with AS1940-2017.

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

- The Traffic Assessment for the Proposal concluded that truck movements do not pose a risk to road safety;
- Residential areas are more than 1000m from the site;
- Treatment methods, procedures and equipment for grease trap waste are well-established and have operated safely and successfully in metropolitan Sydney for many years.

On the basis of the above information, the proposed grease trap treatment facility is not potentially hazardous, and a Preliminary Hazard Analysis is not required.

The acceptance of liquid waste at the facility has the potential to cause odour at the site, which may be considered offensive although negligible. **Appendix 3** of the SEPP 33 Guidelines identifies grease trap treatment plants as potentially offensive.

As discussed in **Section 6.4** and set out in **Appendix G**, air quality assessment and

modelling has been carried out and concluded that, with appropriate design, treatment, operation, management, maintenance, odour impacts are expected to be negligible.

Additionally, an Environment Protection Licence will need to be sought from NSW EPA to accept liquid waste at the facility, ensuring appropriate control and regulation of activities at the site.

6.12.3 Conclusion

Utilising the risk screening procedure as identified in Applying SEPP33, it is concluded that the Proposal is not considered to be potentially hazardous, as it does not exceed the screening thresholds of the applicable legislation. Bunding and storage will be designed, constructed, and operated in accordance with EPA Guidelines and AS1940 where applicable.

The main potential for impacts associated with the operation of the Proposal on the environment and neighbouring land uses is air quality (odours) from handling liquid waste.

Air quality impacts are considered likely to be negligible with the proposed controls, facility design, operational scheduling, and implementation of Halgan's environmental management system.

The facility will continue to be supervised continuously, audited regularly, and subject to an extensive range of monitoring procedures. Incident management and emergency response procedures will be implemented. Halgan has a proud environmental and "good neighbour" record, and its Australian operations are in general accordance with ISO-14001 Environmental Management Systems.

Further, public health and safety, and the occupational amenity of neighbouring land uses, are not likely to be impacted by vectors due to extensive and rigorous controls as described in **Section 6.9.**

Management systems, including neighbour and emergency response plans, will be documented, and submitted to Council and NSW EPA prior to commissioning and seeking the EPA Licence (refer **Section 7**). This will mitigate against any possible issues associated with the proposed changes to the facility. The proposed changes are not anticipated to substantially change the risks and hazards associated with the site.

Preliminary risks associated with public and worker health and safety have also been detailed in **Section 6.9**. Identification of hazards associated with the proposed development to the Halgan facility will be reflected in an updated EMS and verified prior to commissioning.

It is considered the proposed development would not be hazardous or offensive.

6.13 CUMULATIVE IMPACTS

No substantial cumulative impacts have been identified for the proposed changes. The proposed changes to the existing facility will not result in any material change to traffic flows. Water quality changes are also considered negligible. Air quality impact assessment concludes that, with the proposed mitigation measures set out in this EIS, there will be negligible odour impacts on neighbouring land uses.

By providing a capability to safely accept, transfer and recycle/beneficially reuse liquid waste, it is considered that the risk of poor management and disposal practices (i.e. discharge to sewer or stormwater) will be reduced, along with the reduction in total cost to customers, and improved waste management for the local community and the broader city of Sydney.

7. ENVIRONMENTAL AND OPERATIONAL MANAGEMENT

7.1 MANAGEMENT SYSTEMS AND MITIGATION MEASURES

7.1.1 Management Systems

Halgan's existing environmental and occupational health and safety management systems keep abreast of legislative changes, governmental regulations and changes to market conditions. Risk prevention remains a priority, with an internal audit system used to check the reliability of the facilities.

Halgan has been established for over twenty years, and is proud of its record as being a good neighbour and promoting environmentally sustainable development. Halgan's environmental management system is in general accordance with ISO-14000 and ISO-9000 Series requirements. Halgan also has AS-4801 accreditation for their occupational health and safety system.

This section describes the environmental and operational management systems and plans for the Halgan waste recycling facility, including the Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP), and mitigation measures, training, monitoring, auditing and reporting requirements; emergency response, incident management and consultation.

Certification that all works comply with Building Code of Australia (BCA) and Fire Safety requirements will be provided prior to seeking Occupation Certificate and the EPA licence.

7.1.2 Mitigation Measures

The SEARs and Agency requirements (Appendix A) require:

- a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/ or contingency plans to manage significant risks to the environment.

- a consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.

Wetherill Park is an existing industrial area with considerable distance to residential or further sensitive receivers. The Proposal would not require a change to the existing land use. This assessment has concluded that, with the proposed mitigation measures, the potential cumulative impacts associated with proposal are likely to be minor.

The mitigation measures proposed in the respective sections and consolidated below in **Table 7.1** been designed to ameliorate potential impacts associated with individual risks and minimise the potential for overall cumulative impacts.

These measures will be included in the CEMP for construction and OEMP for operation as appropriate for implementation and monitoring.

Table 7.1: Draft Compilation of Mitigation Measures

Draft Compilation Mitigation Measures
Water, Quality, Drainage and Soils
Construction Plans (CEMP) to include and implement following measures: - All works to be carried out within bunded, paved areas; - External areas to be kept clean and tidy and swept regularly, especially before rain events; - Daily inspections to be carried out; - Should the need for excavation arise during construction due to unforeseen circumstances (eg utility connections), excavated soil would be stored in skip bins, sampled and classified in accordance with NSW EPA Waste Classification Guidelines, and reused as fill or disposed-off appropriately. - If excavation is needed, work would be carried out in accordance with the CEMP and the requirements of the NSW Department of Housing's Managing Urban Stormwater – Soils and Construction (Landcom, 2014). - Sumps are inspected and managed to ensure the site discharge is not contaminated. - All stormwater drains on site will be fitted with strainers to remove larger waste that may have been dropped on site. **Operational Plans (OEMP) to include and implement following measures:** - In the unlikely event of flooding on the site, the following flood controls should be incorporated into Incident and Evacuation Plans: - Workers are prevented from leaving the site, this includes within motor vehicles (except as directed by emergency services) - Site waste transfer activities are halted and chemicals are returned to designated storage areas - Warehouse roller doors are closed and if possible barricaded ideally with sandbags - Pollutant shut valves are to be engaged to prevent release of contaminants - Staff are to evacuate to the designated safety areas - Contact with emergency services for excavuation and advice - Under no circumstances should access be permitted to people on foot or in vehicles (except as directed by emergency services) to Davis Road when in flood. Davis Road has significant depth and velocity flood water when compared to the 10 Davis Road property. - Electrical contact points to be set at a level no less than RL36.2 (maximum 1 in 100 Year flood height plus 500mm freeboard). A higher level should be considered where critical infrastructure is required even during inundation i.e. for emergency lighting etc.; - Waste transfer areas are bunded to RL36.2 or have controls in place which prevent unguarded waste being contained below RL36.2 for long periods of times, say more than a day duration - All works to be carried out within bunded, paved areas; - External areas to be kept clean, tidy and swept regularly, especially before rain events; - Daily inspections to be carried out.

Draft Compilation Mitigation Measures
Biodiversity
- Existing trees will be protected and maintained; - Should fauna and flora species and ecological communities be identified during any works, construction and/or operation will cease in the vicinity of the find and the appropriate representative at NPWS will be contacted.
Air Quality (Dust & Odour)
- Availability of spill kits to allow for prompt containment of spills which could be odorous; - Stringent housekeeping regime, subject to inspection and audit; - Regular inspection and cleaning of any inground sumps; - Installation and operation of best-practice foul air collection and scrubber system; - Minimum exit velocity of 10 m/s from the OCU discharge vent; - Segregated area to be kept under negative air pressure; - Implementation of a waste acceptance evaluation procedure to ensure all waste received on site meets the relevant criteria; - Careful facility design to capture odour point sources and limit potential for fugitive emissions to be generated; - Closure of internal roller doors during all waste unloading activity to minimise the potential for fugitive odour emissions; - Waste transferred regularly to reduce volumes and risk of fugitive emissions; - Vector/pest control program to be implemented; - Good neighbour program, monitoring and contact management program to be implemented; - Cleaning of vehicles where necessary prior to departure from site; - Use of odour neutralisers if required; - Availability of spill kits to allow for prompt containment of spills which could be odorous; - Stringent housekeeping regime, subject to inspection and audit; - Regular inspection and cleaning of any inground sumps; - Daily odour survey observations around the boundary of the site; - Work procedures in the event of any particularly odorous loads (e.g. use of odour neutraliser, identifying waste source and investigating possibility of treating off-site or diverting to another waste facility); - Additional OCU medium on-site at all times (e.g. additional activated carbon to be stored on site and used once the OCU has reached capacity).

Draft Compilation Mitigation Measures
Noise & Vibration
- Careful facility design to limit potential for noise to be generated; - Installation and operation of plant and equipment that minimises noise during operation e.g. selection of extraction fans to minimise noise, use of neoprene washers and fixings to minimise noise and vibration from pumps; - Segregated area kept under negative pressure. All air discharged to atmosphere; - Closure of rollers doors during all waste unloading activity to minimise noise amenity impacts on neighbours; - Good neighbour program, monitoring and contact management program to be implemented; - Stringent maintenance regime, subject to inspection and audit.
Traffic, Access and Parking
- Controls should be implemented during construction and operation to ensure all vehicles exiting the site into Elizabeth Street must turn left. Controls to include directions, pavement markings and signage.
Heritage
- In the event of excavation being required due to unforeseen circumstances and a potential indigenous or non-indigenous heritage item being encountered, works would immediately cease, and the site secured until investigations have been carried out.
Visual Amenity, Social and Community
- The air discharge stack would be of similar colour and finish to the existing roof to minimise visual impact.
Public Health & Safety
Waste Collection and Transport to and from Site: - Wastes transported in enclosed tanker trucks; - Compliance with WasteSafe tracking system as required; - Training in appropriate procedures provided to operators and truck drivers, including emergency and spill response. **Unloading, Handling and Storage on Site:** - Products transferred as soon as possible (generally 12-hour turn over max 24-hour residence time); - Unloading via vacuum. Receival bays and storage areas designed to be well ventilated, contained with bunds in accordance with NSW EPA and WorkCover requirements, and secure from vermin and insect pests; - Internal liquid transfer via hard plumbed pipework; - Areas maintained with best practice housekeeping standards; - Training of operators in waste handling and emergency and spill response procedures; - Liquid wastes to be kept separate from other waste types.

Draft Compilation Mitigation Measures

Employee Exposure to Contaminants:

- All tanks will be vented with any "off gases' directed to an odour management system, scrubbed and treated prior to discharge to atmosphere;
- All employees will be provided industry standard Personnel Protective Equipment to ensure their safety while on site;
- The liquid treatment facility will be constructed to ensure employees are not exposed to or come into contact with waste being received or treated at the site.
- Once the liquid waste is transferred from the delivery vehicle to the receival tank all process within the facility are automated;
- All tanks are hard plumbed to eliminate employee interaction with material. The system will be designed run via a PLC process with employees managing transfer and process via a touch screen system;
- In the event that employees are required to override the automated system they will be required to wear appropriate PPE to safeguard against any part of the body coming into contact with liquid waste;
- Prior to commencing operation in the treatment facility all employees will be inducted and provided full training for the safe operation of the treatment facility.
- Regular site audits will be conducted to ensure operators are working in accordance with company policies and procedures;
- Annual health monitoring of employees.

Wastewater Management:

- All wastewater to be discharged to Sydney Water sewer via approved flow meter and hard-plumbed pipework.

Stormwater Management:

- Prevention of stormwater entering process and handling areas through use of roofs and bunds.

General Traffic and Road Safety:

- Training in appropriate procedures provided to operators and truck drivers, including emergency and spill response;
- Transport by enclosed, suitable trucks;
- Clear signage around site to define what traffic is permitted in what areas on site.

Control of Vermin and Insect Pests:

- Use of professional pest control contractors and systems as appropriate (e.g. Rentokill or similar) to eliminate insects and rodents etc;
- Design incorporating proper site drainage to prevent stagnant wet areas that attract mosquitoes and other insect pests;
- Training of all staff in correct handling, use of appropriate PPE, and control of vectors;
- Rigorous monitoring and auditing of the effectiveness of the above controls;
- Inspections and learnings from many other waste treatment facilities

Draft Compilation Mitigation Measures

Preventative Measures for Community Exposure:

- Community exposure is deemed low due to the air management controls that will be operational within the facility;
- Under normal circumstances exposure issues are related to uncontrolled storage or transfer of waste. The facility will be constructed within and existing building ensuring all “fugitive” odours are captured and managed via the odour control systems;
- The community will not be aware of the existence of the facility as the overall operations will be within a secured building;
- Site boundary checks will be completed daily to ensure there are no detectable odours at the site boundaries which could impact adjoin properties or the public.

Security:

- Restricted public access;
- Site bounded by appropriate security fences, with a 24hour camera;
- Warning signs displayed at appropriate locations around site.

Health and Safety:

Facility to be operated in accordance with the “Work Health and Safety Regulation 2011”, including:

- Representation and participation: employees will be required to participate in onsite Safety Audits to ensure operations are conducted in accordance with the Regulation;
- Issue Resolution: issues and problems that arise will be dealt with immediately in conjunction with the safety committee members. Appropriate action will be taken to minimise employee dissatisfaction and maintain stability within the workplace;
- Managing risks to health and safety: risk assessment will be conducted prior to the commencement of any new task or operation. Risk assessments will be reviewed regularly in conjunction with workplace inspection conducted by the Safety Officer;
- Information, training and instruction: all employees will be site inducted prior to commencement. Operating instruction will be provided to ensure employees are competent and aware of all site operating procedures;
- General working environment: risk assessment will be conducted prior to the commencement of any new task or operation;
- First Aid: the site will contain the appropriate first aid requirements for the site. The first aid contents will be audited on a regular basis to ensure all components are in date and safe for use. A first officer will be appointed for the site;
- Emergency Plans: an Emergency Plan (PIRMP) has been developed to ensure employees are trained and aware of correct actions to be taken in the case of an onsite emergency;
- PPE: all employees will be provided (and required to wear) supplied / approved PPE. Replacement PPE will be available at all times.

Draft Compilation Mitigation Measures
Waste and Energy Resources
To minimise energy consumption and resource use: - Idling time of on-site plant and equipment would be limited; - only lighting left on overnight around the site office will be security or emergency/access lighting; - Equipment and on-site vehicles will be fitted with exhaust controls in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2010; - Implement waste management plan (Appendix L) including induction, segregation of waste streams, recycling, and procurement process, during construction and operation. The following energy efficient features would be adopted to reduce emissions during operation: - Installation of a solar photo-voltaic rooftop system would be investigated to reduce energy consumption and greenhouse gases; - All trucks leaving the site carrying waste will be filled to the maximum reasonably practicable to reduce the number of traffic movements required; - Pumps, plant, and equipment to be selected and maintained to reduce energy use; - EURO 5 standard for Halgan trucks; - Timer switches and light sensors: where appropriate, lights within the transfer building would be fitted with timer switches and external lighting would be fitted with a light sensor.
Hazard & Risk Assessment
- The facility will continue to be supervised continuously during operation, audited regularly, and subject to an extensive range of monitoring procedures. Incident management and emergency response procedures will be implemented.
Fire Safety
- All mobile plant and equipment will be fitted with fire extinguishers; - An Emergency Response Plan will be prepared and implemented for the facility; - All staff on site will be appropriately trained in the handling of dangerous goods; - Flammable and combustible liquids with be stored in accordance with AS 1940-2004: The Storage and Handling of Flammable and Combustible Liquids; - Facility to be certified and plans updated.
Stakeholder Consultation
Stakeholder engagement activities will continue to develop and facilitate the engagement process as part of construction and operation management measures which may include: - Telephone line to communicate issues; - Complaints management process; - Updates of the Halgan website; - Clear signage at construction-sites during construction; - Ongoing review and refinement of construction and operation impact mitigation measures.

Draft Compilation Mitigation Measures
Operational Management Plans
Prior to seeking Occupation Certificate and the EPA licence: - As-built plans to be prepared at completion of construction; - Certification that all works comply with Building Code of Australia (BCA) and Fire Safety requirements will be secured; - Emergency response plans, including evacuation plans and results of consultation with local Fire & Rescue to be updated; - Environmental and operational management systems and plans to be updated, and include all mitigation measures, training, monitoring, auditing and reporting requirements; emergency response, incident management and consultation.

7.2 ENVIRONMENTAL MANAGEMENT PLANS

7.2.1 Construction Environmental Management Plan

The proposed construction works is confined to a small area and relatively straight-forward. A construction environment management plan (CEMP) will be prepared for this phase of works and will require approval by the Certifier prior to the Construction Certificate being issued.

7.2.2 Operational Environmental Management

Halgan will update the site EMS, where required, to include additional operational safeguards for the acceptance of new liquid waste streams. In particular the operational management will address health, safety and environmental issues associated with acceptance of liquid waste. All environmental management operational procedures will be in general accordance with ISO-14001 and AS4801.

Operational management will outline safety training requirements for employees and detail precautionary measures to be undertaken when working in hazardous conditions.

The EMS will be reviewed annually and will incorporate the result of any monitoring undertaken in the previous year.

7.3 INCIDENT MANAGEMENT PLAN

The draft Pollution Incident Response Management Plan (PIRMP), refer **Appendix N,** will be updated prior to commissioning to include specific actions that may relate to handling and transfer of liquid waste.

The Fire Safety Schedule will be updated. Liaison with NSW Fire and Rescue (local Brigade) will be carried out during detailed design to confirm and document first-response and emergency management requirements.

The updated PIRMP will be provided to NSW EPA as part of the EPL application, and to Council.

8 JUSTIFICATION AND CONCLUSION

8.1 JUSTIFICATION OF THE PROPOSAL

The EP&A Regulation 2000 requires that an EIS include:

"the reasons justifying the carrying out of the development of the activity in the manner proposed, having regard to biophysical economic and social considerations and the principles of ecologically sustainable development."

The following sections justify the proposed increase in volumes according to the EP&A Regulation 2000, as follows:

Biophysical Considerations

By facilitating increased diversion of grease trap water from ser and with safe beneficial reuse by land application, the proposed development of Halgan's Wetherill Park Facility will contribute to a reduction in he risk of uncontrolled disposal. The proposed changes will also reduce the environmental risk associated with sewer discharge and impacts on the broader environment

Economic Considerations

The results of the financial and economic analysis indicate that not only are the proposed changes economically viable, but it provides the best environmental and social outcomes of the options considered (as discussed in Section 4)

Social Considerations

The proposed changes will result in social benefits to the wider Sydney community through a reduction in the cost to customers and impact of waste disposal on the environment.

Due to its location within an established industrial estate, the operation of the Facility following the changes, are anticipated to have negligible impact on social amenity for the surrounding community.

8.2 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

The proposed changes have been designed to be consistent with the four principles of Ecologically Sustainable Development (ESD), whilst fulfilling the commitment expressed firmly in Halgan's recycling's objectives and policies. It complies with NSW Government statutory requirements, Polices and Plans, and the guidelines and standards of the Fairfield City Council.

The ESD principles are discussed below:

- **Conservation of biological diversity and ecological integrity** - the site at Unit 2, 103 Cowpasture Road, Wetherill Park has been heavily modified in the past, with little flora or fauna occurring on the site, and will not result in adverse impacts on the environment.

- **Inter-generational equity** - the environmental value of the heavy industrial area is low. The health, diversity and productivity of the local environment will not be impacted as a result of the changes, and so will not compromise the amenity of future generations.

- **Precautionary principle** - the implementation of the Proposal will not generate adverse environmental impacts on receiving waters and the broader environment and can be assessed with a high degree of certainty.

- **Valuation and pricing of environmental resources** - the Proposal is anticipated to result in increased benefits to the local economy, including flow on to service sectors, and the increased competitiveness of the Smithfield-Wetherill Park Industrial Estate, as detailed in **Section 4.** The Proposal would result in increased net economic benefits though employment and demand for local services.

8.3 CONCLUSION

The proposal has been assessed as being consistent with all the relevant NSW Government and Fairfield City Council planning policies, and the overall benefits are concluded to be positive.

LIST OF APPENDICES