



March 2016

ENVIRONMENTAL IMPACT STATEMENT INCREASE CAPACITY FOR PUTRESCIBLE WASTE AT WETHERILL PARK RESOURCE RECOVERY FACILITY

Submitted to:
SUEZ

REPORT



Report Number. 147628002





ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

STATEMENT OF VALIDITY

Prepared under Part 4, Division 4.1 of the <i>Environmental Planning and Assessment Act 1979</i>			
Environmental Impact Statement prepared by:			
Name:	Daniel Dohle Jacinta McMahon Todd Robinson		
Address:	124 Pacific Highway St LEONARDS NSW 2065 New South Wales, Australia		
In respect of:	Wetherill Park Resource Recovery Facility – Environmental Impact Statement		
Applicant name:	SUEZ Recycling & Recovery Pty Ltd		
Applicant address:	20 Davis Road, Wetherill Park, NSW		
Proposed development:	Development consent to increase the approved putrescible waste capacity of Wetherill Park Resource Recovery Facility.		
Land to be developed:	<p>Lot 402, DP 603454, at 20 Davis Road, Wetherill Park</p> <p>To be developed within the local government area of Fairfield City Council.</p> <p>The opinions and declarations in this Environmental Impact Statement are based upon information obtained from the public domain and SUEZ Recycling & Recovery Pty Ltd in addition to representatives of Government agencies and specialist consultants.</p> <p>Pursuant to clause 6(f), Part 3, Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>, It is declared that this Environmental Impact Statement:</p>		
Declaration:	<ul style="list-style-type: none"> ■ Has been prepared pursuant to Part 4, Division 4.1 of the <i>Environmental Planning and Assessment Act 1979</i>, and with regard to the form and content requirements of clause 6 and clause 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>, and the Secretary's Environmental Assessment Requirements (SSD 7267) dated 6 October 2015. ■ Contains all available information relevant to the environmental assessment of the development to which this Environmental Impact Statement relates; and ■ Contains information that is neither false nor misleading. 		
Signature:			
Name:	Jacinta McMahon	Todd Robinson	Daniel Dohle
Title	Principal Environmental Engineer	Principal Environmental Planner	Senior Waste Engineer
Date:	24 March 2016	24 March 2016	24 March 2016



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Secretary's Environmental Assessment Requirements	Principal Chapter of the EIS addressing the SEAR
<i>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.</i>	Noted
■ In addition, the EIS must include a:	
<ul style="list-style-type: none"> ■ Detailed description of the development, including: <ul style="list-style-type: none"> – A clear description of the existing operations carried out on the site and how the site operates lawfully under the environmental planning and assessment act 1979 (ep&a act) including any reliance on existing use rights and/or planning approvals and how these will be consolidated 	Chapter 5
<ul style="list-style-type: none"> – Need for the proposed development; 	Chapter 3
<ul style="list-style-type: none"> – Justification for the proposed development; 	Chapter 3 Chapter 18
<ul style="list-style-type: none"> – Likely staging of the development - including construction, and Operational stage/s; 	Chapter 4
<ul style="list-style-type: none"> – Likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; and 	Chapter 4
<ul style="list-style-type: none"> – Plans of any proposed building works. 	Appendix F Appendix G
<ul style="list-style-type: none"> ■ Consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments; 	Chapter 2 Chapter 5
<ul style="list-style-type: none"> ■ Consideration of issues discussed in Attachment 2 (public authority responses to key issues); 	Refer to relevant key issue chapter below.
<ul style="list-style-type: none"> ■ Risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment; 	Chapter 7
<ul style="list-style-type: none"> ■ Detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes: <ul style="list-style-type: none"> – A description of the existing environment, using sufficient baseline data; 	Refer to relevant key issue chapter below.
<ul style="list-style-type: none"> – An assessment of the potential impacts of all stages of the project taking into consideration any relevant guidelines, policies, plans and statutes; 	Chapter 2 and relevant key issue chapter.
<ul style="list-style-type: none"> – A description of the measures that would be implemented to avoid, minimise, mitigate, rehabilitate/remediate, monitor and/or offset the potential impacts of the project, including detailed contingency plans for managing any potentially significant risk to the environment. 	Refer to relevant key issue chapter below.



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Secretary's Environmental Assessment Requirements	Principal Chapter of the EIS addressing the SEAR
<ul style="list-style-type: none"> A consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS. 	Chapter 18
<p>The EIS must also be accompanied by a report from a qualified quantity Surveyor providing:</p> <ul style="list-style-type: none"> A detailed calculation of the capital investment value (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; A close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and Certification that the information provided is accurate at the date of preparation. 	Appendix G
Key issues	
The EISs must address the following specific matters	
<ul style="list-style-type: none"> Waste Management – including: <ul style="list-style-type: none"> A detailed description of the likely waste streams that would be handled, stored and processed at the facility including maximum volumes of each type of waste to be stored on-site at any one time and the maximum throughput of each waste type; The likely waste processing operations, including likely technology and resource outputs and the quality control measures that would be implemented; Details of how waste would be stored and handled on-site and transported to and from the site including details of how the receipt of non conforming waste would be dealt with; Details of the proposed location and size of stockpiles of unprocessed and processed recycled waste on-site; The measures that would be implemented to ensure that the development of consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021 	Chapter 9 Chapter 9 Chapter 9 Chapter 9 Chapter 2 Chapter 3
<ul style="list-style-type: none"> Air Quality and Odour – including: <ul style="list-style-type: none"> A quantitative assessment of the potential air quality, dust and odour impacts of the project on surrounding landowners in accordance with relevant EPA guidelines; A greenhouse gas assessment; and 	Chapter 11



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Secretary's Environmental Assessment Requirements	Principal Chapter of the EIS addressing the SEAR
<ul style="list-style-type: none"> Details of proposed mitigation, management and monitoring measures. 	
<ul style="list-style-type: none"> Traffic and Transport - including: <ul style="list-style-type: none"> Details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes; An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using sidra or similar traffic model; Detailed plans of the proposed layout of the internal road network and parking on-site in accordance with the relevant Australian standards; and Detailed plans of any proposed road upgrades, infrastructure works or new roads required for the development. 	Chapter 12 Appendix K
<ul style="list-style-type: none"> Noise – including: <ul style="list-style-type: none"> A quantitative assessment of potential construction, operational and transport noise and vibration impacts, including potential impacts on nearby noise sensitive receivers; and Details and justification of the proposed noise mitigation and monitoring measures. 	Chapter 13 Appendix L
<ul style="list-style-type: none"> Soil & Water - including: <ul style="list-style-type: none"> Identification of water and soil resources, drainage lines, watercourses and riparian lands; The proposed erosion and sediment controls during construction; A detailed site water balance, including identification of water requirements for the life of the project, measures that would be implemented to ensure an adequate and secure water supply is available for the proposal and a detailed description of the measures to minimise the water use at the site; Potential impacts on watercourses and groundwater; The proposed stormwater/wastewater/leachate management systems including the capacity of on-site detention systems, and measures to treat, reuse or dispose of water; and Consideration of any potential salinity, soil contamination, flooding and acid sulfate soil impacts of the project. 	Chapter 6 Chapter 10 Chapter 10 Chapter 10 Chapter 10 Chapter 10
<ul style="list-style-type: none"> Hazards - including: <ul style="list-style-type: none"> A preliminary risk screening undertaken in accordance with State Environmental Planning Policy No. 33 - Hazardous and Offensive 	Chapter 15 Appendix M



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Secretary's Environmental Assessment Requirements	Principal Chapter of the EIS addressing the SEAR
<p><i>Development (SEPP 33) and Applying SEPP 33 (DoP, 2011), and if necessary, a Preliminary Hazard Analysis (PHA); and</i></p> <ul style="list-style-type: none"> ▪ <i>An assessment of the likely toxicity levels of loads transported to and from the site.</i> 	
<ul style="list-style-type: none"> ■ <i>Visual - including</i> <ul style="list-style-type: none"> ▪ <i>An assessment of the potential visual impacts of the project on the amenity of the surrounding area.</i> 	Chapter 14
<ul style="list-style-type: none"> ■ <i>Socio-economic - including</i> <ul style="list-style-type: none"> ▪ <i>And assessment of the economic and social impacts of the development, particularly of any benefits to the community.</i> 	Chapter 16
<p><i>Plans and Documents</i></p> <ul style="list-style-type: none"> ■ <i>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule I of the Environmental Planning and Assessment Regulation 2000. These documents should be included as part of the EIS rather than as separate documents.</i> 	Noted. Appendix F
<p><i>Consultation</i></p> <ul style="list-style-type: none"> ■ <i>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</i> ■ <i>In particular you must consult with:</i> <ul style="list-style-type: none"> ▪ <i>Fairfield City Council;</i> ▪ <i>Environmental Protection Authority,</i> ▪ <i>Department of Primary Industries;</i> ▪ <i>Roads and Maritime Service;</i> ▪ <i>Transgrid; and</i> ▪ <i>The surrounding land owners and occupiers that may be affected by the proposal.</i> ■ <i>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</i> 	Chapter 8



Executive Summary

Introduction

This Environmental Impact Statement has been prepared on behalf of SUEZ Recycling & Recovery to support a State Significant Development application under Part 4 (Division 4.1) of the *Environmental Planning and Assessment Act 1979*. Division 4.1 of this Act identifies the Minister for Planning as the consent authority for development that is identified as State Significant Development.

The State Significant Development application is seeking to obtain development consent to increase the approved putrescible waste capacity of Wetherill Park Resource Recovery Facility from the existing 10,000 tpa of general solid waste (putrescible) to 140,000 tpa of general solid waste (putrescible). With the site currently accepting 90,000 tonnes per annum (tpa) of non-putrescible waste and 10,000 tpa of putrescible waste, the total waste accepted at the site is proposed to increase from 100,000 tpa to 230,000 tpa.

The proposal also includes improvements to the existing facility including separation of domestic drop-off arrangements from commercial waste streams to improve accessibility, safety and efficiency of operations in addition to the following infrastructure:

- Construction of hardstand areas for additional truck and trailer parking and construction of a new workshop;
- Construction of an additional exit from the main transfer building to improve internal traffic flow; and
- Construction of access ramps, suspended slab and hardstand area to establish the new small vehicle drop off area.

The Proposal would be designed to receive the same amount of general solid waste (non-putrescible) currently accepted at the site and would not propose to change the existing footprint of the transfer station building, the type of waste accepted or the hours of operation.

This Environmental Impact Statement has been prepared by Golder Associates on behalf of SUEZ Recycling & Recovery, as the Proponent, to support the Proposal as described in Chapter 4 of this Environmental Impact Statement. It has been prepared in accordance with the Secretary's Environmental Assessment Requirements issued 6 October 2015 by the Department of Planning and Environment, the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the *Environmental Planning and Assessment Regulations 2000*.

The Proponent

The Proponent for the proposal is SITA Australia Pty Ltd, currently conducting business as SUEZ Recycling & Recovery, which owns and operates Wetherill Park Resource Recovery Facility located at 20 Davis Road, Wetherill Park within the Fairfield City local government area. SUEZ is Australia's leading specialist in resource recovery, recycling and waste management with a network of over 100 facilities across Australia. In metropolitan Sydney this includes a transfer station network consisting of 10 transfer stations in addition to associated Advanced Resource Recovery Technology facilities, Garden Organics facilities, Materials Recovery Facilities, Engineered Landfill Site and Resource Recovery Facilities.

Need and Justification

There are a number of drivers for the strategic need and justification for the proposal including population growth and relevant legislation and policy but the critical driver is the additional capacity requirements for putrescible waste management with the closing of Eastern Creek Resource Recovery Park (anticipated to close in 2017) that currently accepts 550,000 tonnes per annum (tpa) of waste.



The Wetherill Park Resource Recovery Facility is identified as the most suitable location to accept putrescible waste currently delivered to the Eastern Creek Resource Recovery Park due to the following reasons:

- Strategic location – the Wetherill Park Resource Recovery Facility site is located less than five kilometres from Eastern Creek Resource Recovery Park. This reduces the need for time and transportation resources associated with other longer-haul options for waste acceptance and will be particularly favourable to customers who currently deliver waste directly to Eastern Creek Resource Recovery Park. The Wetherill Park Resource Recovery Facility site is also appropriately located within SUEZ's transfer station network to facilitate transfer to existing and future resource recovery or disposal facilities.
- Purpose built facility - the Wetherill Park Resource Recovery Facility is a purpose built facility with two levels. A surge pit is located on the top level and the waste is top-loaded into collector trucks through a loading chute. This allows efficient and safe waste loading and transfer compared to rear loading waste transfer station operations.
- Existing infrastructure and capacity – The proposal seeks to increase the utilisation of existing waste management infrastructure at the Wetherill Park Resource Recovery Facility site. The existing infrastructure and operations at the site are considered to have sufficient capacity to accept additional putrescible waste.
- Reduced waste management footprint – Utilising existing infrastructure reduces the need to develop new waste management infrastructure at other facilities/ new sites and the subsequent increased waste services footprint and potential impact to the environment.
- Existing environmental performance – the Wetherill Park Resource Recovery Facility has a sound environmental record, with no records of odour or other complaints and no non-compliances since 2011 and is considered to operate effectively in accordance with existing approval documentation.

Alternatives

As a result of the need for the proposal, project objectives were identified as follows:

- Facilitating future waste transfer needs of Greater Western Sydney.
- Securing future capacity for putrescible waste transfer and temporary storage to complement other resource recovery management options and landfilling in the Greater Western Sydney region.
- Facilitating the safety and operation of the current facility for future operators and customers.

A number of alternative scenarios to best achieve these objectives were considered during development of the proposal. These include the “Do Nothing” scenario, construction of a new facility or development of an existing facility.

The “Do Nothing” scenario would result in a high risk that the Greater Western Sydney area would not have the capability to meet the existing and future waste capacity needs associated with putrescible waste acceptance. In addition this would result in economic, environmental and social costs associated with an increased potential for illegal dumping and the need for long haul transportation of putrescible waste received within the Greater Western Sydney area. In not securing the capability to accept putrescible waste the Do Nothing scenario would also result in limiting management options associated with resource recovery and treatment, which would impact upon the local government area's ability to achieve municipal waste diversion targets in accordance with relevant legislation.

In respect of selecting a new site to address the project objectives, consideration was given to potential locations for new facilities within the Western Sydney region that could be of sufficient size and strategic location to enable the appropriate safe handling and operations associated with putrescible waste transfer needs. Potential locations for new facilities that could meet putrescible waste transfer needs were found to be not suitable due:



- Existing or proposed development uses on the land making it unavailable;
- Unsuitable zonings and/or constraining surrounding land use issues (i.e. residential/ potential for impact upon amenity);
- Unsuitable access to the site; and
- High capital costs associated with design, construction and operation.

With SUEZ owning and operating a number of existing transfer stations in the Western Sydney region, development of existing waste transfer facilities considered a number of issues including proximity to the Eastern Creek Resource Recovery Park, existing design and environmental performance, current utilisation and capacity of the respective sites in addition to further economic, social and environmental considerations. Based upon these factors the development of Wetherill Park Resource Recovery Facility is considered the most suitable site to accept additional waste that will be generated with the closure of Eastern Creek Resource Recovery Park.

Consultation

A comprehensive consultation process has been underway for the Proposal since inception. SUEZ has utilised a variety of methods to engage the community and further stakeholders and has a history of working together with the community to resolve issues as they are identified, and would continue to do so with regard to Wetherill Park Resource Recovery Facility.

In accordance with the Secretary's Environmental Assessment Requirements consultation has been undertaken with a number of government agencies and stakeholders including:

- Nearby property owners, businesses and leasees;
- Fairfield City Council;
- The Environmental Protection Authority,
- Department of Primary Industries;
- Roads and Maritime Service; and
- Transgrid.

To date there has been a general acceptance of the Proposal by the community and further stakeholders. It has been widely acknowledged that the Proposal is acceptable due to its strategic location and the alternatives of customers having to drop off waste at locations at greater distances from the Wetherill Park Resource Recovery site.

SUEZ is committed to providing the opportunity for community and stakeholder input during assessment of the Proposal and, if approved, during the construction and operation phases of the Proposal.

Environmental Management

The environmental impact statement includes a comprehensive review of the environmental setting for the Wetherill Park Resource Recovery Facility in addition to the site history, existing infrastructure, environmental management and performance at the Wetherill Park Resource Recovery Facility, which operates in accordance with multiple existing approvals in addition to the environment protection licence 4548. If the proposal is approved, consolidation of all existing approvals is proposed.

The various components of the biophysical, social, and economic environment have been considered in this Environmental Impact Statement. Environmental aspects and associated potential impacts of the proposal have been identified based upon a risk assessment process, consultation and the Secretary's Environmental Assessment Requirements. Key aspects of the Proposal identified for further assessment have been identified as not exceeding relevant criteria, with measures further proposed to ameliorate potential impacts of the Proposal.



Waste Management

Waste accepted at the Wetherill Park Resource Recovery Facility includes non-putrescible and putrescible waste that originates from domestic drop off and commercial waste delivery. The development application does not propose to modify waste types currently received at the site, but does propose to increase the putrescible waste accepted at the site from 10,000 tonnes per annum to 140,000 tonnes per annum.

Waste operations will remain largely the same, with the exception of the creation of a dedicated small vehicle drop off area and separate uploading areas for commercial loads of putrescible and non-putrescible waste.

The small vehicle drop off allows domestic customers to source separate their waste into marked bins. This process will result in improved resource recovery, as this source separation process is more efficient and effective than sorting recyclables from the waste unloaded onto the transfer station floor, as per the current operation. This also improves safety, traffic flow and operational efficiency.

To address the closure of Eastern Creek Resource Recovery Park and the consequential loss of capacity for putrescible waste acceptance at this location, the Proposal seeks to direct a portion of the waste currently received at Eastern Creek Resource Recovery Park to Wetherill Park Resource Recovery Facility for transfer to the Lucas Heights Resource Recovery Park. Some material may be transferred to other licenced facilities within SUEZ's network in accordance with existing operations (this may include facilities at Elizabeth Drive, Chullora and Camden). The Lucas Heights Resource Recovery Park provides a sorting and processing function, which supports the recycling and reuse of waste as part of the Proponent's waste management network, which includes Advanced Resource Recovery Technology facilities, Garden Organics facilities and Materials Recovery Facilities.

Soil and Water

The potential soil and water impacts of the Proposal are assessed as minor. The potential for ASS, soil contamination and erosion impacts are low and typical of small scale earthworks required for construction of the Proposal. The potential for water impacts relates to spills and leaks and management of on-site stormwater. Impacts from wastewater relate to segregation of clean and 'dirty water' and increase in wastewater volume. Despite the low impacts, management measures are proposed to be adopted including erosion and sediment measures that would be provided within the Construction Environment Management Plan and the updated Operation Environment Management Plan.

Air Quality, Greenhouse Gas and Odour

An air quality assessment has been completed by Pacific Environment for the proposal (provided in Appendix J) and includes identifying the methodology of assessment, existing environment, impact assessment (based on estimated emissions) and mitigation measures. The air quality assessment identified that odour levels are not predicted to exceed the EPA criterion at the site as a result of the proposal. Despite these findings, mitigation measures are proposed for both odour and dust to further ameliorate potential air quality impacts as a result of activity at the Wetherill Park Resource Recovery Facility site. In addition the greenhouse gas impact of the proposal is considered to be within acceptable limits, with further mitigation to minimise energy usage proposed.

Transport

A transport impact assessment has been completed by Peopletrans (Appendix K) to assess the potential impacts of the Proposal at the Wetherill Park Resource Recovery Facility. This includes considerations of the existing traffic conditions surrounding the site, the traffic generating characteristics of the proposal, the suitability of existing access arrangements for the site and the transport impact of the proposal upon the surrounding road network.

Based upon the Traffic Impact Assessment, it is identified that the Proposal will result in no change to the Levels of Service of the existing intersections affected by the proposal and that subject to some minor works associated with moving the weighbridge stop line and parking configuration, the Wetherill Park Resource Recovery Facility site has sufficient capacity for traffic generated by the proposal.



As such, the proposal would have a low impact upon the safety and efficiency of the surrounding road network during construction and operation of the proposal and no additional infrastructure to ameliorate potential traffic and safety impacts are required.

Noise and Vibration

A Noise Assessment has been completed by Pacific Environment for the Proposal (provided in Appendix L) to assess potential noise impacts of the Proposal. The Noise Assessment includes identifying the methodology of the assessment, existing environment, impact assessment (based on estimated emissions) and potential management measures.

Findings of the Noise Assessment identified the Proposal will have a negligible vibration impact and noise emissions will be well below relevant noise criteria during construction and operation. Management measures currently utilised at the site will continue to ensure noise impacts of the Wetherill Park Resource Recovery Facility are ameliorated.

Visual

The overall visual impacts of the Proposal will be minimal with the existing main transfer station building, car park and weighbridge visible from the cul-de-sac on Davis Road remaining unchanged. The workshop may be partially visible from the cul de sac of Davis Road and partially visible from industrial properties adjacent to the site. However this impact is considered low. The visible features of the Proposal will be commensurate with the visual character of the Wetherill Park Resource Recovery Facility site and surrounding industrial area.

Hazards and Risk

Hazards and risk have been assessed for the Proposal including a preliminary risk screening in accordance with State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (Appendix M).

The Proposal does not propose any change to the storage, handling and transport of materials on the site, other than that associated with the increase in putrescible waste acceptance. Findings of the risk screening identify that the volumes of materials classified as dangerous goods to be stored on-site are well below the screening thresholds (as identified in Applying SEPP 33) for their respective quantities. Furthermore all materials classified as dangerous goods will be located on the site appropriately in accordance with relevant safe storage practises. Based upon the preliminary risk screening and the assessment process identified in applying State Environmental Planning Policy No. 33 - Hazardous and Offensive Development, the Proposal is not considered potentially hazardous and a Preliminary Hazard Analysis is not required.

Socio-Economic Implications

An assessment of the economic and social impacts of the Proposal has been undertaken, demonstrating that it would result in a net benefit to the community. This includes direct and indirect benefits associated with aggregating and providing for densification of an existing waste and resource recovery facility, providing the most feasible and preferred location to ensure necessary and efficient waste and resource recovery is secured into the future and minimising potential negative social and economic impacts that may result from potential negative land values, access and/or community use as a result of waste infrastructure at other locations.

The Proposal will also ensure the generation and ongoing facilitation of local employment (16 full time staff as a result of the proposal) and expenditure within Fairfield local government area and contribute to the attainment of waste management objectives including the aims and objectives of relevant legislation.

The Proposal is consistent with all relevant strategies for the Wetherill Park Resource Recovery Facility site and surround area and provides for an accessible, reliable and affordable waste facility within an area identified as appropriate for this activity.



Draft Compilation of Mitigation Measures

The environmental impact statement includes a draft compilation of mitigation measures outlining environmental management and monitoring measures proposed for the proposal as identified throughout the documentation. The commitments aim to reduce potential impacts of the proposal including consideration of the existing mitigation and management measures in place for the Wetherill Park Resource Recovery Facility.

Next Steps

SUEZ Recycling & Recovery is seeking approval from the Minister for Planning to increase the approved putrescible waste capacity of Wetherill Park Resource Recovery Facility. The next steps in the process are:

- **Exhibition of the Environmental Impact Statement** for a minimum of 30 days and invitation to the community and stakeholders to make submissions.
- **Consideration of submissions.** Submissions received by the Secretary of the Department of Planning and Environment would be provided to the Proponent and any relevant public authorities. The Proponent may then be required to prepare and submit:
 - A submissions report, which contains responses to issues raised in the submissions, and/or further design development and subsequent environmental impacts.
- **Determination of the Development Application.** The Secretary of the Department of Planning and Environment provides an Environmental Assessment Report on the Development Application to the Minister for Planning (or delegate), who then makes a decision on the project and, if approved, can set Conditions of Approval.

Consultation with the community and stakeholders would continue throughout the detailed design and construction phases.



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CHAPTER 1 INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared on behalf of SUEZ Recycling & Recovery (SUEZ) to support the upgrade of the Wetherill Park Resource Recovery Facility (the Proposal). The Proposal is to be assessed as a State Significant Development in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

The purpose of this EIS is to:

- Provide a detailed description of the Proposal;
- Identify the key potential environmental impacts and issues associated with the Proposal;
- Assess the key potential environmental impacts associated with the Proposal; and
- Outline SUEZ's commitment to manage, where possible, any potential impacts identified.

1.1 Proposal Overview

Wetherill Park Resource Recovery Facility is located at 20 Davis Road, Wetherill Park, within the Fairfield Local Government Area (LGA). Wetherill Park Resource Recovery Facility is one of eight waste transfer station facilities operated by SUEZ in the Sydney Metropolitan Area. The Wetherill Resource Recovery Facility is strategically located between the Eastern Creek and Kemps Creek landfill sites, providing processing and transfer facilities to support the operation of these sites. The facility provides a consolidation point for unsorted material collected from residential or commercial premises and from the public. It is a purpose built facility to accept and process waste materials through on-site segregation and the transfer of material for alternative processing or disposal off-site.

Currently the Wetherill Park Resource Recovery Facility accepts 90,000 tonnes per annum (tpa) of non-putrescible waste and 10,000 tpa of putrescible waste.

SUEZ is seeking to obtain development consent to increase the capacity of Wetherill Park Resource Recovery Facility from the existing 10,000 tpa of general solid waste (putrescible) to 140,000 tpa of general solid waste (putrescible). This would increase the total waste accepted at the site from 100,000 tpa to 230,000 tpa.

The Proposal also includes:

- Construction of hardstand areas for additional truck and trailer parking and construction of a new workshop;
- Construction of an additional exit from the main transfer building to improve internal traffic flow; and
- Construction of access ramps, suspended slab and hardstand area to establish a small vehicle drop off area to separate domestic drop-offs with commercial drop-offs.

The Proposal would be designed to receive the same amount of general solid waste (non-putrescible) currently accepted at the site and would not propose to change the existing footprint of the transfer station building, the type of waste accepted or the hours of operation.

Table 1.1 presents a summary of key aspects of the existing site and the proposal. The existing site layout is presented in Figure 1.1 and the proposed site layout is presented in Figure 1.2. Further detailed description of the Proposal is provided in Chapter 4.



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Table 1.1: Summary Table of Existing and Proposed Aspects of the Proposal

Aspect	Existing	Proposed
Waste capacity	<ul style="list-style-type: none"> ■ 90 000 tonnes per annum (tpa) of non-putrescible waste ■ 10,000 tpa of putrescible waste 	<ul style="list-style-type: none"> ■ Increase of general solid waste (putrescible) only to 140,000 tpa. ■ This would increase the total waste accepted at the transfer station from 100,000 tpa to 230,000 tpa.
Key Infrastructure	<ul style="list-style-type: none"> ■ Weighbridge and weighbridge office ■ Car park ■ Administration area and workshop ■ Surge pit and loading chute ■ Driveway and ramps to enter and exit collection tunnel and collection tunnel 	<ul style="list-style-type: none"> ■ Separation of a small vehicle drop-off from commercial drop off and construction of hardstand, suspended slab and access ramps to facilitate this. ■ Construction of hardstand areas for additional truck and trailer parking, and associated stormwater infrastructure. ■ Construction of a new workshop. ■ Construction of an additional exit from the main transfer building to improve internal traffic flow.
Timing for Construction		<ul style="list-style-type: none"> ■ Approximately 5 months.
Employment (construction and operation)	<ul style="list-style-type: none"> ■ 11 full time staff 	<ul style="list-style-type: none"> ■ 16 full time staff ■ Approximately 12 construction staff
Capital Investment Value		<ul style="list-style-type: none"> ■ \$3,279,506



LEGEND

- SITE BOUNDARY
- CONTOURS
- TREES /SHRUBS
- MANHOLE
- PIT

NOTES:

- LEVELS HAVE BEEN TAKEN FROM SSM 42224 RL 35.19 M AHD (SCIMS).
- THE POSITION OF FEATURES ARE INDICATIVE ONLY.
- AHD HAS BEEN TRANSFERRED USING LEICA GNSS EQUIPMENT WITH AN ACCURACY OF $\pm 1 - 30$ mm.
- BEARINGS AND DISTANCES ARE BY TITLE ONLY. NO BOUNDARY INVESTIGATION HAS BEEN CARRIED OUT.
- THE SHAPES, SIZES, POSITION, AND HEIGHTS OF TREES ARE APPROXIMATE ONLY. FURTHER FIELD INSPECTION SHOULD BE CARRIED OUT WHERE TREE DETAILS ARE CONSIDERED TO CRITICALLY AFFECT ANY DESIGN.

NOT TO SCALE

REFERENCE(S)
BASE PLAN PROVIDED BY MATTHEW FREEBURN (LAND, ENGINEERING & MINING SURVEYOR), REF. 31699, DATED 13/08/2015, DELIVERED IN .dwg IN FORMAT

NOTE:
BASE PLAN PROVIDED IS NOT SPATIALLY CO-ORDINATED, AND HAS ALSO BEEN RE-SCALED BY GOLDBER ASSOCIATES.
FOR ILLUSTRATION ONLY.

CLIENT
SUEZ

CONSULTANT

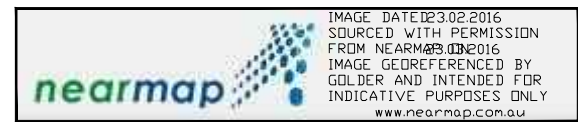


YYYY-MM-DD 2016-03-23
PREPARED V L
REVIEWED D D
APPROVED D D

PROJECT
WETHERILL PARK RESOURCE RECOVERY FACILITY

TITLE
EXISTING SITE LAYOUT

PROJECT NO. 147628002 DOCUMENT No 024 REV. A FIGURE 1.1



- NOTES:
1. THE PROPOSED TRUCK PARKING, DRIVEWAYS AND MANOUEVERING AREA ARE DESIGNED IN ACCORDANCE WITH AS2890.1 & AS 2890.2
 2. PROPOSED NEW DRIVEWAYS ARE OFFSET FROM EXISITNG TRANSMISSION STRUCTURE BY 5M IN ACCORDANCE WITH "TRANSGRID EASEMENT GUIDELINES FOR THIRD PARTY DEVELOPMENT"

NOT TO SCALE

REFERENCE(S)
BASE PLAN PROVIDED BY SBA ARCHITECTS, PROJECT No. 15233, DWG No. DA101, REV. E, DELIVERED IN .dwg IN FORMAT

NOTE:
BASE PLAN PROVIDED IS NOT SPATIALLY CO-ORDINATED, AND HAS ALSO BEEN RE-SCALED BY GOLDBER ASSOCIATES.
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CONSULTANT



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APPROVED	DD

PROJECT
WETHERILL PARK RESOURCE RECOVERY FACILITY

TITLE
PROPOSED SITE LAYOUT

PROJECT NO.	DOCUMENT No	REV.	FIGURE
147628002	024	A	1.2



1.2 The Proponent

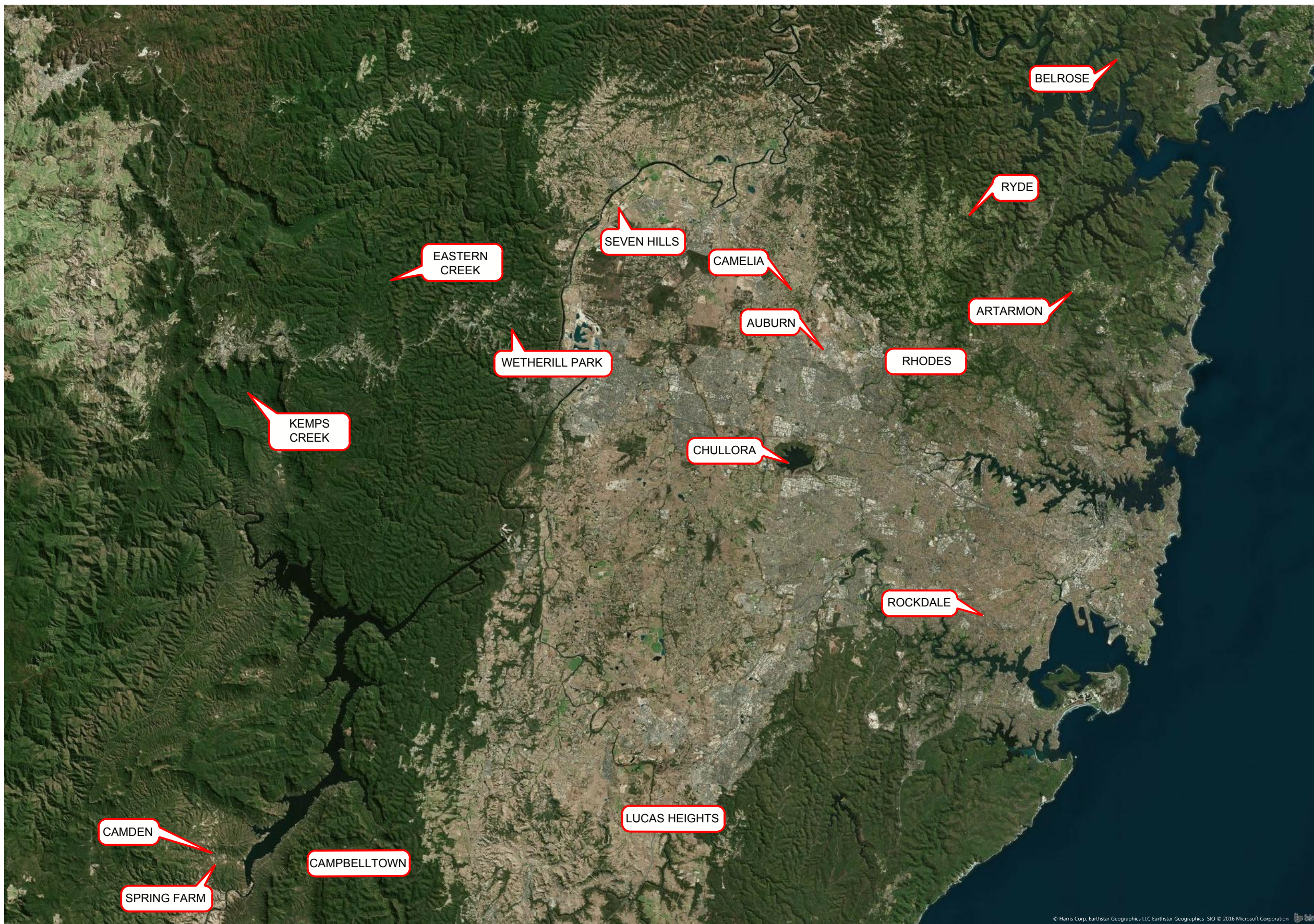
The Proposal proponent is SUEZ Recycling & Recovery (SUEZ) Pty Ltd, which owns and operates Wetherill Park Resource Recovery Facility. Wetherill Park Resource Recovery Facility is located on Lot 402, DP 603454, at 20 Davis Road, Wetherill Park (the Site). The Site is 2.049 ha and is located approximately 29 kilometres west of the Sydney CBD (refer to Figure 1.3).

SUEZ is Australia's leading specialist in resource recovery, recycling and waste management. The company has a network of over 100 facilities across Australia, including:

- Advanced Resource Recovery Technology (ARRT) facilities – which provide a higher order waste resource recovery function for a variety of waste types, for reuse and recycling.
- Garden Organics (GO) Facilities - composting systems that accepts source separated organic material for conversion into high quality compost.
- Materials Recovery Facilities (MRF) – this is where collection vehicles unload recyclable materials, such as plastic containers, aluminium cans, glass, paper and cardboard and manually and mechanically sort, bale and send them as commodities to global markets.
- Resource Recovery Facilities (RRF) – provide a consolidation point for unsorted material with some resource recovery undertaken on-site through segregation or processing. Material unable to be sorted on-site is transported to an ARRT, MRF or Organic RRF.
- Engineered Landfill Sites – landfills play an important and necessary part in waste management for residual waste that cannot yet be recycled or reused. Landfill gas generated from SUEZ engineered landfills is captured and converted into electricity.

This network of waste facilities seek to ensure that the recovery and reuse of waste from commercial and residential sources is maximised and residual waste to landfill sites is minimised. The facilities are located to provide a high level of service and have the ability for facilities to support and supplement one another as the need arises.

Figure 142 shows the regional location and distance to Sydney CBD and key waste management sites, owned and operated by SUEZ within the Greater Sydney area. This includes the Site and the Eastern Creek Landfill and Resource Recovery Facility located to the north-west.



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LEGEND

RYDE SUEZ KEY WASTE MANAGEMENT SITES

NOT TO SCALE

CLIENT
SUEZ

PROJECT
WETHERILL PARK RESOURCE RECOVERY FACILITY

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TITLE
REGIONAL LOCATION

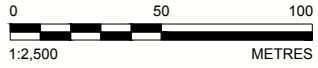
PROJECT NO.
147628002

DOCUMENT No
024

REV.
A

FIGURE
1.3

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CLIENT
SUEZ

CONSULTANT



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REVIEWED	DD
APPROVED	DD

PROJECT
WETHERILL PARK RESOURCE RECOVERY FACILITY

TITLE
SITE LOCATION

PROJECT NO. 147628002	DOCUMENT No 024	REV. A	FIGURE 1.4
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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ISO A3



1.3 Need for the Proposal

The objectives and need for the Proposal are:

- Facilitating future waste transfer needs of Greater Western Sydney.
- Securing future capacity for putrescible waste transfer and temporary storage to complement other resource recovery management options and landfilling in the Greater Western Sydney region.
- Facilitating the safety and operation of the current facility for future operators and customers.

Refer to Chapter 3 of the EIS, which further addresses the Strategic Need of the Proposal.

1.4 Assessment Process

This EIS has been prepared in accordance with Part 4 of the EP&A Act and the EP&A Regulation having been identified as a State Significant Development and assigned application number SSD 15_7267. The environmental impact assessment process seeks to ensure that the community is consulted and that all relevant environmental matters, including issues raised by the community, are considered during the development and assessment of the Proposal.

This EIS addresses the Secretary's Environmental Assessment Requirements (SEARs) (refer Appendix A), which were issued for the Proposal on the 6 October 2015 by the Secretary of the NSW Department of Planning and Environment (DPE) following consultation with government stakeholders to scope the environmental assessment requirements.

The EIS is set out to address the SEARs including the assessment of the potential key issue impacts of the Proposal and where applicable identifies mitigation and management strategies to avoid and reduce potential impacts and enhance the benefits of the Proposal.

The EIS will be placed on public exhibition, in accordance with the EP&A Regulation during which time the community and all other stakeholders may lodge submissions with regard to the Proposal. Following the public exhibition, all submissions will be forwarded to the Proponent by the DPE. Following exhibition, the Secretary of the DPE will require the preparation of a submissions report to address the submissions made during exhibition. An assessment report by the DPE will then be prepared to assist the determining authority in their assessment of the Proposal.

1.5 Structure of the Environmental Impact Statement

The EIS is presented in two volumes. Volume One contains the EIS report and Volume Two comprises the appendices. The mitigation and management measures suggested in the specialist reports have been taken into account in developing the draft Compilation of Mitigation Measures (Chapter 18) for the Proposal.

The structure of the EIS is summarised in Table 1.2.

Table 1.2: Structure of the EIS

Volume One	
Chapter	Description
Chapter 1 – Introduction	Provides an overview of the need and description of the Proposal. Outlines the purpose of the EIS document.
Chapter 2 – Statutory Framework	Provides information on the relevant legislation and environmental planning instruments that apply to the Proposal.
Chapter 3 – Project Justification and Strategic Need	Provides the strategic context and need including the internal and external drivers for the Proposal



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

	addressing legislative, economic, environmental and social considerations.
Chapter 4 – Project Description	Provides a detailed description of the Proposal.
Chapter 5 – Site History and Existing Infrastructure and Operations	Provides a history of development on the Site and identifies and discusses the existing infrastructure and operations.
Chapter 6 – Environmental Setting	Provides an overview of the existing environment of the Proposal site.
Chapter 7 – Environmental Risk Analysis	Details the risk analysis process by which key environmental issues may be identified for assessment.
Chapter 8 – Community and Stakeholder Engagement	Provides an overview of the community consultation and stakeholder engagement processes that have been undertaken for the Proposal to date.
Chapter 9 – Waste Management	Assesses the management of waste as a result of the Proposal.
Chapter 10 – Soil and Water	Assesses the potential impacts upon soil and water and the management systems to address these issues during construction and operation.
Chapter 11 – Air Quality, Greenhouse Gas and Odour	Assesses the potential impacts upon air quality and odour during construction and operation of the Proposal.
Chapter 12 – Traffic and Transport	Assesses the potential impacts on the transport networks from construction and operational traffic.
Chapter 13 – Noise and Vibration	Assesses the potential impacts of noise and vibration during construction and operation of the Proposal
Chapter 14 – Visual	Assesses the potential visual impacts of the Proposal upon on the amenity of the surrounding area.
Chapter 15 – Hazards and Risk	Assesses the hazards and risk associated with the Proposal including potential bushfire risks.
Chapter 16 – Socio-Economic	Assessment of the economic and social impacts of the Proposal.
Chapter 17 – Other Considerations	Assessment of further considerations including heritage and Flora and fauna.
Chapter 18 – Cumulative Impacts and Draft Compilation of Mitigation Measures	Provides a draft Compilation of Mitigation Measures.
Chapter 19 – Justification and Conclusions	Confirms the justification for the Proposal, considering the Proposal's potential environmental impacts and consistency with the principles of ecologically sustainable development, site suitability and consistency with the EP&A Act.

Volume 2 – Appendices

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APPENDIX B EPL

APPENDIX C Development Consent Conditions

APPENDIX D Trade Waste Agreement

APPENDIX E Section 149 Certificate

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APPENDIX K Traffic and Transport Assessment

APPENDIX L Noise Impact Assessment

APPENDIX M Preliminary Hazard Analysis

APPENDIX N Certificates of Title

APPENDIX O Aerial Photographs

1.6 Proposal Team

Golder Associates (Golder) has prepared this EIS on behalf of SUEZ. Further organisations have contributed specialist studies as part of the environmental assessment process. These include:

- PeopleTrans Pty Ltd - Transport Impact Assessment
- Pacific Environment Limited – Air Quality and Odour Assessment
- Pacific Environment Limited – Noise Impact Assessment



CHAPTER 2 STATUTORY FRAMEWORK

The Secretary's Environmental Assessment Requirements

- ***consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments***

Chapter 2

Chapter 5

2.1 Commonwealth Legislation

Environment Protection and Biodiversity Act 1999

The *Environmental Protection and Biodiversity Act 1999* (EPBC Act) prescribes the Commonwealth's role in environmental assessment, biodiversity conservation and the management of protected areas and species, populations and communities and heritage items. The approval of the Commonwealth Minister for the Environment is required for:

- An action that has, would have, or is likely to have a significant impact on matters of National Environmental Significance (NES matters);
- Actions that are likely to have a significant impact on the environment of Commonwealth land;
- Actions taken on Commonwealth land that are likely to have a significant impact on the environment anywhere; and
- Actions by the Commonwealth that are likely to have a significant impact on the environment anywhere.

NES matters include:

- World heritage values of a declared World Heritage property;
- National heritage values of a listed National Heritage Place;
- Wetlands of International Significance (including Ramsar wetland Sites);
- The Commonwealth marine environment;
- Nuclear actions;
- Listed threatened species and ecological communities, and
- Listed migratory species.

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

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

Based upon the assessment completed in this EIS a referral will not be made to DOE.

2.2 NSW State Legislation

Environmental Planning and Assessment Act 1979

The EP&A Act (and the associated EP&A Regulation) is the primary legislation for establishment of controls on land use planning, establishing the framework for environmental planning and assessment in NSW.

The objects of the EP&A Act are:



a) *To encourage:*

- i) *The proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, waters, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
- ii) *The promotion and co-ordination of the orderly and economic use and development of land;*
- iii) *The protection, provision and co-ordination of communication and utility services;*
- iv) *The provision of land for public purposes;*
- v) *The provision and co-ordination of community services and facilities;*
- vi) *The protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats;*
- vii) *Ecologically sustainable development, and*
- viii) *The provision and maintenance of affordable housing.*

b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*

c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The Proposal is consistent with the nominated objectives of the Act and is considered capable of fulfilling the statutory requirements. The environmental risk assessments have determined that the Proposal will not result in any significant negative impacts that cannot be adequately mitigated or managed. This EIS confirms that the Proposal can be undertaken in a manner that will not adversely impact on natural resources but will promote the economic use of the land in a manner, which will provide an improved level of waste management into the future.

State Significant Development

Part 4 of the EP&A Act establishes an assessment and approval regime for development that is declared as State Significant Development (SSD). *State Environmental Planning Policy (State and Regional Development) 2011* describes development that is subject to the approval process established under SSD. Of most relevance, Section 89C(2) of the EPA Act enables a State Environmental Planning Policy to declare any development, or any class or description of development, to be SSD. This clause states:

- (1) *For the purposes of this Act, State significant development is development that is declared under this section to be State significant development.*
- (2) *A State environmental planning policy may declare any development, or any class or description of development, to be State significant development*
- (3) *The Minister may, by order published in the Gazette, declare specified development on specified land to be State significant development, but only if the Minister has obtained and made publicly available advice from the Planning Assessment Commission about the State or regional planning significance of the development. Note: For orders under this subsection, see the Historical notes at the end of this Act.*
- (4) *A State environmental planning policy that declares State significant development may extend the provisions of the policy relating to that development to State significant development declared under subsection (3).*



Schedule 1 Clause 23(2) of *State Environmental Planning Policy (State and Regional Development) 2011* has declared the Proposal to be SSD as it proposes a facility which would handle waste volumes over 100,000 tonnes per annum.

Pursuant to 89D (1) the Minister is the consent authority for SSD. Clause 89E (2) confirms that development consent may not be granted if the development is wholly prohibited. As confirmed in Section 2.4.5, the Proposal, which is defined as a resource recovery facility, is permissible with consent within the IN1 zone of *Fairfield Local Environment Plan 2013* and hence the Minister may grant consent to the application.

Designated Development

The Proposal would also be considered designated development under Clause 32 (waste management facilities or works) of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*, which refers to:

- (1) *Waste management facilities or works that store, treat, purify or dispose of waste or sort, process, recycle, recover, use or reuse material from waste and:*
- (b) *That sort, consolidate or temporarily store waste at transfer stations or materials recycling facilities for transfer to another site for final disposal, permanent storage, reprocessing, recycling, use or reuse:*
- (iii) *That have an intended handling capacity of more than 30,000 tonnes per year of waste such as glass, plastic, paper, wood, metal, rubber or building demolition material.*

However, under section 77A of the EPA Act, the Proposal is not designated development due to classification as SSD whereby Clause 77A (Designated Development) states:

- (1) *Designated development is development that is declared to be designated development by an environmental planning instrument or the regulations.*
- (2) *Designated development does not include State significant development despite any such declaration.*

Integrated Development

In accordance with Section 91 of the EP&A Act, the Proposal would also be integrated as it will require a change to the existing Environmental Protection Licence (EPL), issued under the *Protection of the Environment Operations Act 1997*, to authorise the carrying out of scheduled development work at the Site.

Under Section 91 Development that is integrated development, of the EP&A Act

- (2) *Before granting development consent to an application for consent to carry out the development, the consent authority must, in accordance with the regulations, obtain from each relevant approval body the general terms of any approval proposed to be granted by the approval body in relation to the development. Nothing in this section requires the consent authority to obtain the general terms of any such approval if the consent authority determines to refuse to grant development consent.*
- (3) *A consent granted by the consent authority must be consistent with the general terms of any approval proposed to be granted by the approval body in relation to the development and of which the consent authority is informed. For the purposes of this Part, the consent authority is taken to have power under this Act to impose any condition that the approval body could impose as a condition of its approval.*
- (4) *If the approval body informs the consent authority that it will not grant an approval that is required in order for the development to be lawfully carried out, the consent authority must refuse consent to the application.*

Therefore, terms of approval will need to be sought from the NSW Environmental Protection Authority (NSW EPA) in relation to the Proposal.



2.3 Further relevant NSW legislation

In addition to the EP&A Act, NSW legislation relevant to the Proposal and the preparation of the EIS are outlined below.

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) relates to pollution management and waste disposal in NSW and establishes the requirements for licensing of certain activities that are listed in Schedule 1 of this Act including the recovery of general waste and waste storage facilities.

The Site currently operates under EPL 4548.

Clause 43 identifies the types of licence as including:

Environment protection licences may be issued for the following purposes:

- (a) To authorise the carrying out of scheduled development work at any premises, as required under section 47,*
- (b) To authorise the carrying out of scheduled activities at any premises, as required under section 48,*

Therefore, the Proposal to increase the amount of putrescible waste that can be accepted at the Site will require an amendment to the existing EPL. This will be considered as part of the development assessment process through the consideration of the proposal as integrated development. Appropriate consultation with the relevant agency will ensure obligations of the POEO Act are met.

Contaminated Lands Management Act 1997

The *Contaminated Lands Management Act 1997* regulates contaminated sites in NSW.

The Proposal will be managed in accordance with the *Contaminated Lands Management Act 1997*. This includes consultation with the relevant authorities and management of ground contamination in accordance with this act. Refer to Chapter 10 of the EIS for further details.

Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* (WARR) provides the framework under which the *Waste Avoidance and Resource Recovery Strategy* can be made and implemented (see Section 2.5.1).

Broadly, the objectives of the Act are to:

- (a) To encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development,*
- (b) To ensure that resource management options are considered against a hierarchy of the following order:*
 - (i) Avoidance of unnecessary resource consumption,*
 - (ii) Resource recovery (including reuse, reprocessing, recycling and energy recovery),*
 - (iii) Disposal,*
- (c) To provide for the continual reduction in waste generation,*
- (d) To minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste,*
- (e) To ensure that industry shares with the community the responsibility for reducing and dealing with waste,*
- (f) To ensure the efficient funding of waste and resource management planning, programs and service delivery,*
- (g) To achieve integrated waste and resource management planning, programs and service delivery on a state-wide basis,*
- (h) To assist in the achievement of the objectives of the protection of the environment operations act 1997.*

It is considered the Project is consistent with the WARR Act as addressed in Chapter 9 of the EIS.



2.4 Environmental Planning Instruments

Within the framework of the EP&A Act, Environmental Planning Instrument (EPIs) are required to be addressed as part of SSD assessment, on a Local and State wide basis. The following EPIs are considered to be relevant to the Proposal and are outlined below.

- State Environmental Planning Policies (SEPP)
 - *State Environmental Planning Policy (Infrastructure) 2007*
 - *State Environmental Planning Policy 33 Hazardous and Offensive Development*
 - *State Environmental Planning Policy No. 55 – Remediation of Land*
 - *State Environmental Planning Policy (Western Sydney Parklands) 2009*
- Local Government legislation
 - *Fairfield Local Environment Plan 2013*

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)

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:

resource recovery facility means 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:

Waste or resource management facility means a waste or resource transfer station, a resource recovery facility or a waste disposal facility.

Under Clause 121 of the Infrastructure SEPP:

- a) *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 Proposal is therefore in accordance with Clause 121 of the Infrastructure SEPP and is 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 Roads and Maritime Services (RMS).

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

SEPP 33 seeks to ensure that in determining whether a development is a hazardous or offensive industry, any measures proposed to be employed to reduce the impact of the development are taken into account, and that the consent authority has sufficient information to assess the development and impose any relevant conditions. This requires a person proposing to make a development application to carry out development for the purposes of a potentially hazardous industry must prepare (or cause to be prepared) a preliminary hazard analysis for consideration in the assessment process. Refer Chapter 15 for the Preliminary Hazard Analysis for the Proposal.



It is considered the Proposal is not a hazardous or offensive industry as when the measures proposed to reduce impacts of the Proposal are employed there would not be a significant risk to human health, life or property or the biophysical environment. It is considered the Proposal is permissible under SEPP 33.

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

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. The Proposal does not propose a change of use, but an intensification of an existing authorised use.

Refer to Chapter 10 for further discussion of contamination and suitability of the Site for the Proposal.

State Environmental Planning Policy (Western Sydney Parklands) 2009

The land immediately adjacent to the Site, to the west, 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 site.

Fairfield Local Environment Plan 2013

The following definitions contained within the *Fairfield Local Environment Plan 2013* (Fairfield LEP 2013) apply to the Proposal and the continued use of the Site as a resource recovery facility:

Waste or resource management facility means any of the following:

- (a) a resource recovery facility,
- (b) a waste disposal facility,
- (c) a waste or resource transfer station,
- (d) a building or place that is a combination of any of the things referred to in paragraphs (a)–(c).

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

The Site of the Proposal is zoned as IN1 – General Industry under *Fairfield Local Environment Plan 2013* (LEP).

The objectives of this zone are to:

- To provide a wide range of industrial and warehouse land uses.
- To encourage employment opportunities.
- To minimise any adverse effect of industry on other land uses.
- To support and protect industrial land for industrial uses.
- To ensure development is not likely to detrimentally affect the viability of any nearby business centre.

The following details the uses permitted and prohibited within the zone.

2 Permitted without consent

Environmental protection works

3 Permitted with consent

Depots; Freight transport facilities; Funeral homes; Garden centres; General industries; Hardware and building supplies; Industrial training facilities; Kiosks; Landscaping material supplies; Light industries;



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Neighbourhood shops; Plant nurseries; Roads; Rural supplies; Take away food and drink premises; Timber yards; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4

4 Prohibited

Air transport facilities; Airstrips; Amusement centres; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Commercial premises; Correctional centres; Eco-tourist facilities; Entertainment facilities; Environmental facilities; Exhibition homes; Exhibition villages; Extensive agriculture; Farm buildings; Forestry; Function centres; Health consulting rooms; Heavy industrial storage establishments; Heavy industries; Home-based child care; Home businesses; Home occupations; Home occupations (sex services); Information and education facilities; Intensive livestock agriculture; Jetties; Marinas; Medical centres; Mooring pens; Moorings; Research stations; Residential accommodation; Restricted premises; Rural industries; Sex services premises; Tourist and visitor accommodation; Water recreation structures; Water reticulation systems; Water treatment facilities; Wharf or boating facilities

The use of the Site as a waste or resource transfer station is a permitted within this zone with consent, by virtue of it not being a prohibited use or a use permissible without consent.

There are no principal development standards (Lot size, height, FSR etc.) controls relating to the Site, nor is the land identified as having any heritage items located on it, or having acid sulphate soils, bush fire risk or flood risk under the provisions of the LEP (refer to Table 2.1).

Table 2.1: Fairfield LEP 2013 relevant provisions

Provision	Consideration	Outcome
Zone IN1 General Industrial	The Proposal proposes a use permissible with consent in Zone IN1 General Industrial.	Complies
4.3 Height of buildings	There are no maximum height restrictions applied to the Site.	Not applicable
4.4 Floor space ratio	There is no maximum floor space ratio restrictions applied to the Site.	Not applicable
5.10 Heritage conservation	There are no items of heritage significance relating to the Site, or immediate surrounds	Not applicable
6.1 Acid sulphate soils	The Site is not identified as being impacted by acid sulphate soils.	Not applicable
6.3 Flood planning	The Site is not identified as being at or below the flood planning level.	Not applicable
6.5 Terrestrial biodiversity	The Site is not identified on the Terrestrial biodiversity map as having biodiversity. Impacts on flora and fauna are considered further in Chapter 17.	Not applicable
6.6 Riparian land and watercourses	The Site is not identified as a Riparian Area on the relevant map.	Not applicable



2.5 State and Regional Planning Strategies and Policies

NSW Waste Avoidance and Resource Recovery Strategy 2014-21

The *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* provides targets for the reduction in waste to 2021. The objectives and targets of the Strategy are to:

- 1) *Avoid and reduce waste generation;*
- 2) *Increase recycling;*
- 3) *Divert more waste from landfill;*
- 4) *Manage problem wastes better;*
- 5) *Reduce littering;*
- 6) *Reduce illegal dumping;*

The Strategy includes targets to increase recycling of municipal solid waste, and commercial and industrial waste to 70% by 2021-22. Increasing the capacity of the Wetherill Resource Recovery Facility will assist in the meeting of this target and it is considered the Proposal is consistent with the NSW WARR Strategy as addressed in Chapter 9 of the EIS.

A Plan for Growing Sydney 2014

Action 4.2 Identify and Protect Land for New Waste Management Facilities within *A Plan for Growing Sydney 2014* identifies that Sydney will require additional waste and recycling infrastructure of:

- *additional recycling infrastructure capacity of 165,000 tonnes per year for municipal (local council) waste;*
- *additional recycling infrastructure capacity of 380,000 tonnes per year for commercial and industrial waste; and*
- *an additional 25 community recycling centres for recycling of household hazardous waste*

Whilst the Plan identifies the need for the protection of new locations for waste management infrastructure, the increase of capacity of existing infrastructure, for example at Wetherill Park Resource Recovery Facility, would reduce the pressure on new sites.

2.6 Local Planning Framework

Fairfield City Wide DCP 2013

The *Fairfield City Wide Development Control Plan (DCP) 2013* came into force on 16 January 2015. Whilst development control plans do not apply to State Significant Development, consideration of their provisions can be requested to be made within the EIS by Council.

Section 3.6 Land Contamination contains objectives and controls for the management of contaminated land. This includes a requirement for information to be provided at the application stage as to whether there is evidence that land may be contaminated. Investigations to assess the likelihood of contamination and a requirement for the preparation of a remediation action plan, in accordance with SEPP 55 are included. The Proposal is able to comply with this provision.

Chapter 9 Industrial Development contains objectives and controls to regulate industrial development within the LGA. The following provisions are considered to be potentially relevant to the Proposal.



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Table 2.2: Fairfield DCP 2013 relevant provisions

Provision	Consideration	Outcome
Chapter 3 Environmental Management and Constraints		
3.6 Land Contamination	Requirement for consideration as to whether land may be contaminated and undertaking of detailed investigations if required.	The Proposal is able to comply.
Chapter 9 Industrial Development		
9.2 Car parking, vehicle and access management	Referral to the Roads and Traffic Authority (RTA now RMS) for traffic generating development and controls relating to the requirements for car parking and vehicular site access.	Referral to the RMS has been made in accordance with SSD development and SEPP (Infrastructure) 2007.
9.4 Streetscape and amenity	Provides maximum hours of operation of Monday to Friday (7:00am – 9:00pm), Saturday (8:00am – 6:00pm), and Sunday (9:00am – 5:00pm)	The Proposal does not change the current approved operating hours.
Chapter 12 Car parking, vehicle and access management		
12.1.1 Parking Rates	Resource Recovery Facility - To be determined by a car parking survey of a comparable facility	Refer to Chapter 12
12.2 Design Guidelines	Provides detailed design guidelines for car parking.	Refer to Chapter 12. The Proposal includes car parking which will comply with the design provisions.



CHAPTER 3 PROJECT JUSTIFICATION AND STRATEGIC NEED

The Secretary's Environmental Assessment Requirements

- **Need for the proposed development;**
- **Justification for the proposed development**

Chapter 3

Chapter 3 and 18

3.1 Proposal Need Overview

The Lucas Heights Resource Recovery Park (Lucas Heights RRP) and the Eastern Creek Resource Recovery Park (Eastern Creek RRP) are the two main active putrescible landfills located within Sydney that service the Sydney metropolitan area. Currently, 550,000 tonnes per annum (tpa) of waste is being delivered to Eastern Creek RRP, consisting of an approximate 240,000 tpa of waste being delivered directly by existing customers and the remainder (310,000 tpa) delivered by SUEZ's existing transfer station network.

The Eastern Creek RRP is anticipated to close in 2017. Upon closure of the Eastern Creek RRP, the already limited landfill capacity of the Sydney metropolitan area will be further constrained. SUEZ propose to provide additional capacity at Wetherill Park Resource Recovery Facility to enable the transfer of a portion of the waste currently delivered to Eastern Creek RRP to other resource recovery and/or disposal facilities in SUEZ's existing network. In addition to the imminent closing of Eastern Creek RRP, further drivers of the need to increase capacity at the Wetherill Park Resource Recovery Facility site include population growth and relevant legislation and policy.

The Wetherill Park Resource Recovery Facility is identified as most suitable to accept putrescible waste currently delivered to the Eastern Creek RRP due to the following reasons:

- **Strategic location** – the Site is located less than 5 kilometres from Eastern Creek RRP. This reduces the need for time and transportation resources associated with other longer-haul options for waste acceptance and will be particularly favourable to customers who currently deliver waste directly to Eastern Creek RRP. Should the Proposal not be go ahead, waste service will be restricted, particularly with the closure of Eastern Creek RRP, and will result in an additional 13 km trip to dispose of waste, at the Seven Hills RRF. The Site is also appropriately located within SUEZ's transfer station network to facilitate transfer to existing and future resource recovery or disposal facilities. Figure 1.4 shows the location of the Wetherill Park Resource Recovery Facility in relation to other SUEZ facilities.
- **Purpose built facility** - It is a purpose built facility with two levels. A surge pit is located on the top level and the waste is top-loaded into collector trucks through a loading chute. The bottom level is only for large collector trucks. This allows efficient and safe waste loading and transfer compared to rear loading waste transfer station operations.
- **Existing infrastructure and capacity** – The Proposal increases the utilisation of existing waste management infrastructure at the Site. The existing infrastructure and operations at the Wetherill Park Resource Recovery Facility are considered to have sufficient capacity to accept additional putrescible waste as demonstrated in Chapter 9.
- **Reduced waste management footprint** – Utilising existing infrastructure reduces the need to develop new waste management infrastructure at other facilities/ new sites and subsequent impact to the environment.
- **Existing environmental performance** – the Wetherill Park Resource Recovery Facility has a sound environmental record, with no records of odour or other complaints and no non-compliances since 2011 and is considered to operate efficiently and effectively in accordance with existing approval documentation.

Currently the Wetherill Park Resource Recovery Facility accepts 90,000 tonnes per annum of non-putrescible waste and 10,000 tpa of putrescible waste. The Proposal is seeking to obtain approval to increase the licence capacity of Wetherill Park Resource Recovery Facility from the existing 10,000 tpa of



general solid waste (putrescible) to 140,000 tpa of general solid waste (putrescible). This would increase the total waste accepted at the Site from 100,000 tpa to 230,000 tpa, which as identified above would significantly alleviate the gap in capacity as a result of the Eastern Creek RRP closure. The Proposal also seeks the facilitation of further operational efficiency and safe handling through the separation of the putrescible and non-putrescible waste streams at the Wetherill Park Resource Recovery Facility.

3.2 Existing and Future Capacity

Existing and Future Landfill Capacity for Sydney

In managing putrescible waste within the Sydney metropolitan area, landfills and their associated infrastructure are a critical component of Sydney's waste management network. It is widely recognised that putrescible waste landfill capacity in the Sydney region is limited to Lucas Heights RRP and Eastern Creek RRP (located in Sydney) and Woodlawn Waste Management Centre (located in regional NSW). With the closure of Eastern Creek RRP in 2017, this will be further constrained with no further additional landfill capacity proposed and/or in development in Sydney.

Existing and Future Resource Recovery

In addition to landfill facilities, resource recovery and treatment facilities have the ability to accept and process putrescible waste.

Diversion of waste from landfill is being driven by a variety of legislation and policy including:

- *Waste Avoidance and Resource Recovery Act 2001;*
- The waste levy imposed on waste disposed to landfill under Section 88 of the *Protection of the Environment Operations Act 1997*;
- *Waste Avoidance and Resource Recovery Strategy 2014-21;*
- *NSW 2021 A Plan to Make NSW Number One; and*
- *A Plan for Growing Sydney.*

Various alternative waste technology facilities have been constructed in NSW. Approved facilities within Sydney with the ability to accept and process putrescible waste include 'UR3R', Eastern Creek, 'Ecolibrium', Spring Farm, 'SAWT', Kemps Creek all operating as part of the SUEZ network. The Woodlawn Mechanical and Biological Treatment (MBT) and 'Ecolibrium' the Kimbriki Alternative Waste Technology have not yet commenced operation. At the time of writing, SUEZ has lodged a Development Application for the Lucas Heights RRP project, which includes seeking approval to increase resource recovery capability of the Advanced Resource Recovery Treatment (ARRT) facility from 100,000 tonnes to 200,000 tonnes putrescible per annum. With a 70% recovery rate, the facility could divert up to 140,000 tonnes of waste per year from landfill.

The number of facilities available to accept and treat putrescible waste within the Sydney area remains relatively limited in number, capacity and location. For example, A Plan for Growing Sydney expressly states the action to 'identify and protect land for waste management facilities' is based upon Sydney requiring waste management and recycling infrastructure capacity to process an additional 165,000 tpa for general putrescible (local council) waste into the future.

Demand for Putrescible Waste Capacity

Eastern Creek RRP currently accepts approximately 240,000 tpa of waste directly from customers and 310,000 tpa through SUEZ's transfer station network. The NSW Government (2009) *Public Review Landfill Capacity and Demand* (The Wright Review) identifies that the putrescible waste limit at Eastern Creek RRP ...should be reconsidered to increase the annual allowance to prevent breaches. This suggests that the demand for putrescible waste capacity at Eastern Creek RRP is in excess of their existing limits, which will only be exacerbated with closure of the Eastern Creek RRP in 2017. The need for alternate waste capacity is a critical issue for the Greater western Sydney area and the wider Sydney metropolitan area.



In addition to Eastern Creek RRP closure in 2017, population growth within the Sydney region is also likely to result in increased demand for processing of putrescible waste within the Sydney metropolitan area in general and the Greater Western Sydney area. The DPE population projections identify that the South West Subregion (made up of the five local government areas of Camden, Campbelltown, Fairfield, Liverpool, and Wollondilly) is projected to grow by 325,000 between 2011 and 2031¹. This population projection was identified prior to recent large infrastructure announcements such as those detailed in the *2015 Western Sydney Infrastructure Plan*², which are likely to result in further population growth and the need for future waste capacity.

With approval of the Proposal, Wetherill Park Resource Recovery Facility will address a portion of the demand associated with the closure of Eastern Creek RRP site in 2017, in addition to additional waste requirements as a result of population growth in the near future.

3.3 Existing SUEZ Transfer Station Network

To address the closure of Eastern Creek RRP and the consequential loss of capacity for putrescible waste acceptance at this location, SUEZ propose to direct the waste currently received at Eastern Creek RRP to Wetherill Park Resource Recovery Facility for transfer of the majority of the putrescible waste to Lucas Heights RRP, with some amount transferred licenced facilities within SUEZ's network in accordance with existing operations (this may include facilities at Elizabeth Drive, Chullora and Camden). The Lucas Heights RRP site provides a sorting and processing function, which supports the recycling and reuse of waste as part of SUEZ's network, which includes ARRT, organic resource recovery facilities and MRF's.

SUEZ's transfer station network consists of 10 transfer stations in addition to associated ARRT, MRF and organic resource recovery facilities. With transfer stations included at the locations of Seven Hills (13 kilometres from Eastern Creek RRP), Auburn (20 kilometres from Eastern Creek RRP) and Chullora (24 kilometres from Eastern Creek RRP). Being located less than 5 kilometres from the Eastern Creek RRP the Wetherill Park Resource Recovery Facility, is the closest SUEZ owned transfer facility to the Eastern Creek RRP site. It is noted that there is no existing transfer facility at Eastern Creek.

The Site is well located to accept and transfer waste that is currently received directly from customers at Eastern Creek RRP and/or within SUEZ's existing transfer station network. The Proposal will reduce the need for long haul transportation of waste from the Greater Western Sydney area either directly by customers and/or outside of SUEZ's transfer station network. This is consistent with relevant policy actions and objectives including the NSW Government (2012) *NSW Long Term Transport Master Plan*, *NSW 2021 A Plan to Make NSW Number One* and *A Plan for Growing Sydney* in addition to legislation including the *Waste Avoidance and Resource Recovery Act 2001*.

The economic cost of utilising facilities other than Wetherill Park Resource Recovery Facility would be significant to customers and SUEZ, given the larger transport haulage distances from alternate transfer station locations within SUEZ's network.

3.4 Alternatives

As a result of the need for the Proposal, the identified objectives of the Proposal are to:

- Facilitating future waste transfer needs of Greater Western Sydney.
- Securing future capacity for putrescible waste transfer and temporary storage to complement other resource recovery management options and landfilling in the Greater Western Sydney region.
- Facilitating the safety and operation of the current facility for future operations and customers.

A number of alternative scenarios to achieve the Proposal objectives have been considered during development of the Proposal. These include:

¹ <http://www.planning.nsw.gov.au/Research-and-Demography/Demography/-/media/CDC80D3376524C2CB146BF2D9022B903.ashx>

² https://infrastructure.gov.au/infrastructure/western_sydney/



- The 'Do Nothing' scenario
- Construction of a new facility
- Development of existing facility

Each alternative scenario has been reviewed against the Proposal objectives as discussed below. Following this more detailed consideration of the preferred scenario alternatives are provided. This includes consideration of the potential environmental, social and economic issues associated with alternate:

- Site layouts;
- Access modes and routes;
- Materials handling and production processes; and
- Impact mitigation measures.

These issues are discussed within this chapter and in further detail in the relevant key issues chapters of the EIS.

Do Nothing Scenario

If the Proposal did not proceed in any form, there would be a high risk that the Greater Western Sydney area would not have the capability to meet the existing and future waste capacity needs associated with putrescible waste acceptance. This is in large part due to Eastern Creek RRP closing in 2017.

The Do Nothing scenario would result in economic, environmental and social costs associated with an increased potential for illegal dumping and/or the need for long haul transportation of putrescible waste currently received within the Greater Western Sydney area. This environmental, economic and social cost would impact upon local government, local business and the local community and would not be consistent with relevant State legislation or policy.

In not securing the ability to accept putrescible waste the Do Nothing scenario would also result in limiting management options associated with resource recovery and treatment. This would likely result in incoming waste being diverted to existing landfill thereby further reducing this constrained resource and impacting upon environmental and economic issues including Fairfield City Council's (Council) ability to achieve municipal waste diversion target in accordance with the *Waste and Resource Recovery Strategy 2014-2021*.

For the above-listed reasons, not proceeding with the Proposal in some form would not achieve the Proposal objectives.

Construction of New Facilities

In consideration of the construction of new facilities to address the Proposal objectives, the new facilities would be required to be located within the western Sydney region and meet future waste transfer needs of the surrounding area.

In respect of selecting a new site to address the Proposal objectives, consideration was given to potential locations for new facilities within the Western Sydney region that were of sufficient size (more than 2 hectares) to enable the appropriate safe handling and operations associated with putrescible waste transfer needs. A review of sites was undertaken, which included consideration of land ownership and legislative, environmental, economic and social considerations. While the search identified a number of properties potentially matching the size and location criteria, these were found to be unsuitable due to issues including:

- Existing or proposed development uses on the land making it unavailable;
- Unsuitable zonings and/or constraining surrounding land use issues (i.e. residential/ potential for impact upon amenity);
- Unsuitable access to the site; and



- High capital costs associated with design, construction and operation.

For the above-listed reasons, it is considered unfeasible that SUEZ construct new facilities within the Greater Western Sydney area to secure future capacity for putrescible waste transfer and/or meet future waste transfer needs of the surrounding area.

Development of Existing Facilities

As identified within Section 3.3, SUEZ has an extensive existing transfer station network that addresses the existing waste transfer needs of the surrounding area. In deciding on the development of existing facilities within this network (Seven Hills, Auburn and Chullora), a number of issues were considered including: proximity to the Eastern Creek RRP, existing design and environmental performance, and current utilisation and capacity of the respective sites within this network. Based upon these factors the development of Wetherill Park Resource Recovery Facility is considered the most suitable to accept additional waste for processing.

Development of Wetherill Park Resource Recovery Facility

With development of Wetherill Park Resource Recovery Facility identified as the preferred alternative, consideration of further issues associated with the Proposal description have been considered. These include site layout, access modes and routes, materials handling and potential impact and mitigation measures. These elements are addressed in more detail in Chapter 4. SUEZ has sought a Proposal that minimises potential economic, social and environmental constraints whilst addressing the Proposal objectives.

Economic considerations

As an existing waste transfer station-site with sufficient capacity to accept current and proposed waste limits minimal change of existing infrastructure is required for Wetherill Park Resource Recovery Facility.

While the Proposal does propose a workshop and storage in the east of the Site and additional access ramps and hardstand areas, it does not include any change to the existing footprint of the main transfer building, no change to the size of the surge pit and no change to the method of loading. Therefore while the Proposal is increasing the waste acceptance of an existing resource recovery facility, it is doing so with minimal cost and disturbance that would be associated with additional infrastructure. Enhancing the operational efficiency to accept putrescible waste will also enable the existing infrastructure to be utilised to a greater level and reduce the need for the development of a new facility to accommodate additional putrescible waste transfer in the future. This is consistent with objectives of the *Waste Avoidance and Resource Recovery Act 2001* including encouraging the most efficient use of resources.

The Proposal will also ensure the ongoing facilitation of local employment (16 full time staff as a result of the proposal in addition to approximately 12 construction staff) and ongoing expenditure within Fairfield local government area.

Social considerations

Located within an existing industrial area with considerable distance to residential or further sensitive receivers, the Proposal will not require the Wetherill Park Resource Recovery Facility to change the existing use of the Site and consequently the potential negative social impacts of the Proposal will be minimal. The existing facility provides an important service to domestic and commercial clientele within the local area. Should the Proposal not be approved, this service would be restricted for the area in the future and would likely result in additional travel associated with haulage of waste to other transfer sites, such as the Seven Hills RRP a further 13 kilometres from Eastern Creek RRP. This may potentially result in increased illegal dumping of waste in the area as no further alternatives are available.

Environmental considerations

As discussed above, the Proposal will only require minor changes to the infrastructure and operation of Wetherill Park Resource Recovery Facility, thereby limiting potential environmental impacts associated with the construction of infrastructure.



Subject to individual contracts, waste accepted at the Wetherill Park Resource Recovery Facility will be processed where possible in accordance with the waste hierarchy (avoidance, resource recovery, disposal), which underpins the objectives of the *Waste Avoidance and Resource Recovery Act 2001*. This results in environmental benefits associated with diversion of waste from landfill. SUEZ currently owns and/or operates majority of approved and planned AWT / ARRT in the Sydney, and is committed to continue its service offering to achieve better environmental outcomes. For example, as part of the Lucas Heights RRP development application, the ARRT proposed is expected to achieve 70% diversion rates.

The Proposal will also reduce the need for an additional facility to be developed in the Fairfield area in the future. As discussed in Section 3.2 this issue of need is driven largely by the closure of the Eastern Creek RRP in addition to projected population growth and further factors.

In order to facilitate the ongoing safety and operation of the current facility for future operations and customers when the capacity increases, it is proposed to reconfigure on-site traffic and parking to separate commercial and small vehicle drop-off areas. In addition the existing domestic and commercial waste vehicle access will be reconfigured to improve materials handling and accessibility, safety and operation of the domestic waste facility. This includes moving small vehicle waste acceptance to outside of the main transfer building and providing recycling and recoverables' facilities for source separation into appropriately marked bins, which will result in improved resource recovery, as this source separation process is more efficient and effective than the existing operation of sorting recyclables from the waste unloaded onto the transfer station floor.

Further access and on-site traffic changes include providing for new truck parking and stand down areas to the east of the Site. However no change to the access or circulation of the collector trucks is proposed as part of the Proposal.

Operating efficiently and effectively in accordance with existing approval documentation with good buffers to sensitive receptors, Wetherill Park Resource Recovery Facility is not encumbered by constraints that would restrict an increase in licence capacity.

In utilising an existing resource recovery facility to address the Proposal objectives, SUEZ minimises the regional waste management footprint by developing additional putrescible capacity at an existing facility, rather than through development of an alternative site.

In addition to that identified within this section, the Proposal seeks to make no change to:

- Egress/ingress to and from the Site;
- Operating hours;
- Equipment type; and/or
- Types of waste accepted.

The Proposal includes the continuation and consolidation of existing approvals on the Site. If the Proposal is approved, it is proposed that SUEZ would surrender previously granted development consents relating to the Site, with the understanding that all previously approved activities roll over into the new consent, to ensure the Site would operate in accordance with one consolidated planning approval.

3.5 Legislation and Policy

Through facilitation of the safe and efficient handling and disposal of waste through SUEZ's transfer station and resource recovery network, the Proposal is consistent with relevant National, State and local legislation and policies. These are identified and discussed below.

National Waste Policy: less waste, more resources

The *National Waste Policy: Less Waste, More Resources* was released in November 2009 and outlines the federal government's direction for waste management in Australia to 2020. The outcomes intended to be achieved under the Policy include:



- Waste streams are routinely managed as a resource to achieve better environmental, social and economic outcomes
- Australia has increased the amount of products, goods and materials that can be readily and safely used for other purposes at end of life
- Opportunities to safely manage, reduce and recycle waste are available to all Australians.

The Proposal will help to achieve these outcomes by providing ongoing resource recovery infrastructure capacity for the Greater Western Sydney region and the Sydney metropolitan area, whereby valuable material is enabled to be recovered from material that would otherwise be disposed to landfill.

State Government Policy and Strategy

Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) seeks to encourage the reuse and recycling of waste as a priority over disposal of waste. The WARR Act does this through highlighting the importance of responsible resource management, including maximisation of the utility of resources and associated minimisation of disposal to landfill.

The objectives of the WARR Act, New South Wales' principal piece of legislation governing waste and resource management, include:

- Encouraging the most efficient use of resources;
- Reducing environmental harm;
- Ensuring that resources are managed against the waste hierarchy of avoidance, resource recovery then disposal;
- Diversion of waste from landfill;
- Ensuring industry takes part in reducing and dealing with waste; and,
- Achieving integrated, state-wide waste and resource management planning and service delivery.

As an existing resource recovery facility within the existing SUEZ transfer station network, the Wetherill Park Resource Recovery Facility provides sorting and transfer of waste to maximise reuse and recycling of resources in accordance with the WARR Act. The Proposal would assist to further develop this role and assist to further achieving the objectives of the WARR Act. The Proposal would result in transfer of waste to licenced facilities within SUEZ network for processing or disposal. Ongoing operation of Wetherill Park Resource Recovery Facility will also ensure the ongoing diversion of non-putrescible waste from landfill for reprocessing in accordance with existing operations.

Waste Avoidance and Resource Recovery Strategy 2014-21

The NSW *Waste Avoidance and Resource Recovery Strategy 2014-21* (WARR Strategy) provides the principles to address the achievement of WARR Act objectives, essentially as a state-wide waste strategy. The WARR Strategy names six key result areas to be achieved for 2021-2022:

- Avoiding and reducing the amount of waste generated per person in NSW;
- Increasing recycling rates to:
 - 70% for municipal solid waste
 - 70% for commercial and industrial waste
 - 80% for construction and demolition waste
- Increasing waste diverted from landfill to 75%;



- Managing problem wastes better, establishing 86 drop-off facilities and services across NSW;
- Reducing litter, with 40% fewer items (compared to 2012) by 2017; and
- Combatting illegal dumping, with 30% fewer incidents (compared to 2011) by 2017.

The Proposal will enable Wetherill Park Resource Recovery Facility to continue to be a critical component of resource recovery network in assisting to achieve the relevant recycling rates and diversion from landfill as set by the WARR Strategy. The Site will also contribute to reducing illegal dumping by providing for waste capacity at an appropriate and convenient drop-off location for putrescible waste.

NSW Long Term Transport Master Plan

The 2012 *NSW Long Term Transport Master Plan* provides a framework for NSW Government's 20 year vision to deliver transport services within the State. While this Master Plan does not explicitly identify the transport of waste, this activity is a significant component of transport requirements in the Sydney metropolitan area.

In 2008–09, the tonnage of waste generated in the Sydney metropolitan area was approximately 11 megatonnes (Mt) (Department of Environment, Climate Change and Water NSW, 2011). With waste requiring transport from the waste generation source to its final destination, it is estimated that one tonne of generated waste equates to approximately two tonnes of transport costs. Waste generation is also growing. Between 2002–03 and 2008–09, waste generation grew 70%; from 12 Mt to 21 Mt (Hyder 2012). This growth will increase the number of waste transport vehicles on Sydney roads, in addition to the distance they are required to travel.

As identified previously within this chapter, the Wetherill Park Resource Recovery Facility is a preferred location for the Proposal due to its proximity to the Eastern Creek RRP site. The approval of the Proposal would contribute to reducing transport costs including those associated with the reduction in long-haul traffic movement of waste to further facilities.

NSW 2021: A Plan to Make NSW Number One

The NSW Government's *NSW 2021 A Plan to Make NSW Number One* (NSW 2021) Goal 22 is to 'Protect our Natural Environment', which includes the protection of local environments from pollution by targeting illegal dumping.

As identified previously within this chapter, the Proposal would provide needed waste capacity for the Greater Western Sydney region thereby reducing the potential for illegal dumping through the availability of transfer station-sites. Goal 23 of NSW 2021 is to 'increase opportunities for people to look after their own neighbourhoods and environments'. A target of this goal is to increase recycling rates and to turn waste into a valuable resource.

The Proposal would enable the sorting and transfer of putrescible waste to further recovery facilities, which supports the NSW Government's target to increase recovery rates and lead to better outcomes for the environment.

A Plan for Growing Sydney

Released in December 2014, "A Plan for Growing Sydney" is the NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years. The Plan provides key directions and actions to guide Sydney's productivity, environmental management, and liveability – including the delivery of waste management facilities.

Action 4.3.2 is to 'identify and protect land for new waste management facilities'. This action goes onto state that Sydney will require additional waste management and recycling infrastructure, to process an additional recycling infrastructure capacity of 165,000 tonnes per year for municipal (local council) waste; and an additional recycling infrastructure capacity of 380,000 tonnes per year for commercial and industrial waste.



The Proposal can contribute to this identified need for additional waste capacity through the transfer of additional waste at the existing Wetherill Park Resource Recovery Facility. The benefit of utilising an existing facility to contribute to addressing this action includes the reduced environmental, social and economic impacts associated with no change in existing land use and a reduced requirement for addition new waste management infrastructure.

3.6 Proposal Need Summary

Development of the Proposal at the Wetherill Park Resource Recovery Facility would achieve the Proposal objectives, addressing future waste needs of the surrounding area and securing future capacity for putrescible waste transfer in the western region. The Proposal would also enable facilitation of the safety and operation of the current facility for future operators and customers.

The Proposal would permit Wetherill Park Resource Recovery Facility to continue to be a significant piece of state infrastructure that is consistent with NSW Government policy. This includes facilitating increased recycling and recovery of waste and providing access to other waste infrastructure developments, which together form an essential part of Sydney's long-term waste management strategy. The Proposal would also form part of an integrated waste management solution that would utilise SUEZ's transfer station network to transport Sydney's waste to appropriate resource recovery facilities and sites for further processing and disposal. It is therefore considered there is a demonstrated need for the Proposal and it meets all identified objectives in comparison to all other considered alternatives. The Proposal will also contribute to all relevant legislative and strategic planning policy documentation to serve Sydney's future waste management needs.



CHAPTER 4 PROJECT DESCRIPTION

Chapter 4 provides a detailed description of the Proposal including the design and operation of the Proposal.

The Secretary's environmental assessment requirements

- ***A detailed description of the development including:***
 - ***Likely staging of the development***
 - ***Likely interactions between the development and existing, approved and proposed operations in the vicinity of the site; and***
 - ***Plans of any proposed building works.***
- ***The EIS must also be accompanied by a report from a qualified quantity surveyor providing:***
 - ***A detailed calculation of the capital investment value (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived***
 - ***A close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and certification that the information provided is accurate at the date of preparation.***
- ***The EIS must include all relevant plans, architectural drawings, diagrams ...***

**Chapter 4
Appendix F
Appendix G**

4.1 Description of Proposal

The Proposal elements include:

- Increase in putrescible waste;
- Construction of hardstand areas for additional truck and trailer parking and construction of a new workshop;
- Construction of an additional exit from the main transfer building to improve internal traffic flow; and
- Construction of access ramps, suspended slab and hardstand area to establish a small vehicle drop off area to separate domestic drop-offs with commercial drop-offs.

The Proposal does not seek to change:

- General solid waste (non-putrescible) capacity currently accepted at the Site;
- Waste types;
- The existing footprint of the transfer station building;
- Egress/ingress to and from the Site;
- Operating hours;
- Equipment; and/or
- Acceptance/handling of asbestos including transportation to/from the Site.

The Proposal is driven by the need to optimise the use of an existing purpose built transfer station, which has sufficient infrastructure capacity to receive and transfer the requested waste volumes, as well as ancillary upgrades to support the capacity increase and improve operations.



Increase in Putrescible Waste

It is proposed to increase the licence capacity from the existing 10,000 tpa of general solid waste (putrescible) to 140,000 tpa of general solid waste (putrescible). This would increase the total waste accepted at the site from 100,000 tpa to 230,000 tpa.

No changes are proposed to the amount of general solid waste (non-putrescible) accepted.

Site Layout

The site layout for the Proposal is presented in Figure 1.2 and detailed drawings for the Proposal are presented in Appendix F. No changes are proposed to the existing footprint of the main transfer building and no changes are proposed to the existing easements.

Access and internal traffic flows

The Site will continue to have a combined entrance and exit shared by both commercial and domestic users.

The weighbridge and entry will remain unchanged with the exception of moving the stopping line further onto site by 3m, to allow for queuing as discussed in Chapter 12.

Internal traffic flows will be modified as follows:

- A 'small vehicle waste drop off area' will be established and accessed by small vehicles.
- A roller door will be installed at the western end of the main transfer building, improving existing traffic flow within the main transfer building.
- A hardstand area will be established to the west and east of the transfer station for access to the truck and trailer parking and the proposed workshop in the southern most corner of the Site.

Parking

The Proposal seeks to provide 12 additional parking spaces for truck and trailer parking to the east of the transfer station to ensure no parking demand upon local roads.

New workshop

A new workshop will be constructed for on-site maintenance of equipment and vehicles. The workshop has a 20m x 20m footprint. Stormwater collected from the roof of the workshop will be directed to the new stormwater conveyance system. This system will tie into the existing pit 13.

New small vehicle drop off area

The Proposal features separation of small vehicle drop-off from commercial waste streams to improve accessibility, safety and efficiency of the operations. This area allows small vehicles to source separate recyclable materials into marked bins, which will result in improved resource recovery, as this source separation process is more efficient and effective than sorting recyclables from the waste unloaded onto the transfer station floor, as per the current operation.

A suspended concrete slab and access ramps will be constructed in this area.

Small vehicles are able to drop off the following items:

- Recyclables e.g. plastic containers, paper, cardboard, cans
- Scrap metal
- Hazardous items e.g. paint, vehicle batteries, engine oil, gas cylinders



4.2 Construction of the Proposal

Construction methods would be determined at the time of construction (in accordance with the Project approval conditions), the construction period is estimated to be approximately 20 weeks and construction would likely not be staged. All construction would be carried out in accordance with a CEMP and Construction Quality Assurance plan and would comprise the general steps:

- Site establishment
- Clear and grub
- Site preparation
- Formwork
- Pouring slabs
- Erection of workshop building and suspended slabs and access ramps.

Site establishment: Site establishment would take approximately one week and include the mobilisation of equipment.

Clearing and grubbing: would take approximately one week and involve the removal of grass and trees as well as the grubbing of roots and stumps. Organic matter would be removed from Site and disposed of at a licensed facility. It would also involve the stripping of topsoil, which would be stockpiled for on-site reuse or disposed to an authorised disposal facility.

Bulk earthworks: This would involve minor excavation of portions of the Site as well as the placement of fill to create grade. The bulk earthworks would have a construction period of approximately 2 weeks.

Pavement and hardstand construction: The construction of pavement and hardstand would have a construction period of approximately 1 month and involve the placement and construction of the base and sub-base as well as the construction of kerbs, gutter and concrete barriers and pouring of the concrete.

Stormwater: The construction of additional stormwater conveyance systems under the new heavy duty pavement would have a construction period of approximately 2 weeks. This system will tie into the existing pit 13. The system will consist of two new stormwater pits and a 500mm diameter stormwater pipe.

Access ramps and suspended slab: The construction of the access ramps and suspended slab would involve preparation of foundations, excavation of footings, laying formwork for foundations and pouring concrete and craning in slabwork. It would take approximately 1 month to complete.

New roller shutter opening: The construction of the opening and new roller shutter.

Construction of workshop foundations and slab: The construction of the workshop foundation and slab would involve excavation of footings, laying formwork, placing reinforcement, concrete pouring and curing. It would take approximately one month to complete.

Construction of workshop: The workshop construction would take approximately one month to complete and include the erection of the walls and cladding. It would also involve the installation of the ventilation systems, lighting and plumbing.

Construction equipment

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



Construction Environmental Management

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

Hours

Due to the industrial setting of the site, hours of construction are proposed to be 24 hours to shorten construction period and minimise disturbance to neighbouring industries. The site will be closed for the construction period. The construction period is expected to be approximately 20 weeks.

Construction Workforce

It is anticipated that the average construction workforce for the Proposal would be approximately 12.

4.3 Operation of the Proposal

The facility would continue to operate in much the same manner as described in Chapter 5.

Domestic and commercial customers from within the Sydney region would transport waste by road to the Wetherill Park Resource Recovery Facility. Vehicles would enter the facility via Davis Road and cross the weighbridge. Small vehicles would be separated from trucks after the weighbridge, as directed by the weighbridge operator, with cars guided to the proposed small vehicle drop off area and commercial traffic to the eastern doorway of the main transfer building. Pickup trucks are directed to one of two pick up areas at either the northern or eastern side of the building.

Within the transfer building, vehicles unload the waste into designated areas onto the floor, keeping putrescible and non putrescible waste separate. Small vehicles unloading outside of the transfer station building would source separate recyclables and recoverables into the bins provided.

As per current operations, non-recyclable waste would be pushed into and along the surge pit by a bulldozer, through a waste pit, into transfer trucks parked at a lower loading level on the southern side of the building for transfer off-site. Further detail on management of waste streams is provided in Chapter 9 of the EIS.

Small vehicles, drop off trucks and collection trucks all use a common exit road and exit. The wheelwash will continue to be located along this exit road. The existing odour and dust systems and leachate management systems would continue to operate as described in Chapter 5. The paper and cardboard processing as described in Chapter 5 would be relocated off-site.

Hours

No changes are proposed to the current consented hours of operation. Hours of operation shall be 24 hours a day, seven days a week.

Environmental Management during Operation

The existing processes and procedures for the Site would be reviewed and the existing OEMP updated as necessary to manage the impacts of operation. An outline of the OEMP is provided following:

- Weighbridge Operations
- Stormwater Management Plan (refer Chapter 10)
- Traffic Management Plan (refer Chapter 12)
- Odour Management Plan (refer Chapter 11)
- Dust Management Plan (refer Chapter 11)
- Noise Management Plan (refer Chapter 13)



- Incident Response Plan (refer Chapter 15)
- Roles and Responsibilities
- Reporting

Operational Equipment

On-site equipment would remain the same, with hours of operation of equipment increased commensurate with the waste volume increase. Equipment on-site includes:

- Dozer
- Excavator (3)
- Front End Loaders (2)
- Bobcat
- Forklift

4.4 Capital Investment Value

Concept engineering drawings for the Proposal are provided in Appendix F. The capital investment value has been estimated at \$3,279,506. A copy of the quantity surveyors report and assumptions made is included in Appendix G.

4.5 Integration of the Proposal with SUEZ Waste Management Facilities

SUEZ has a large network of waste management infrastructure within Sydney and is a lead provider of waste management solutions. The Wetherill Park Resource Recovery Facility is one of the key pieces of waste management infrastructure within the SUEZ Sydney waste management network. The additional waste transfer capacity provided by this Proposal replenishes the loss of waste acceptance/transfer/disposal capacity and ensures that Sydney's waste disposal arrangements are not interrupted by the closure the Eastern Creek RRP, of one of Sydney's major landfills.

The majority of the putrescible waste received at the Site will be transferred to Lucas Heights RRP. Some putrescible waste may be transferred to other licenced facilities managed by SUEZ in accordance with existing operations and approvals at the sites, including Elizabeth Drive, Chullora and Camden for processing and/or disposal. At the time of writing, SUEZ has lodged the Development Application for the Lucas Heights RRP project, which provides increase of landfill capacity over a further 12 years, as well as resource recovery capability with the proposed ARRT facility that could divert up to 140,000 tonnes of waste per year from landfill with an estimated 70% diversion rate.



CHAPTER 5 SITE HISTORY AND EXISTING INFRASTRUCTURE AND OPERATIONS

- **The Secretary's Environmental Assessment requirements**
 - **Existing operations carried out on the site and how the site operates lawfully under the Environmental Planning and Assessment Act 1979 (EP&A Act) including any reliance on existing use rights and/or planning approvals and how these will be consolidated;**

Chapter 5

5.1 Site History

Certificate of Title

A summary of the historical ownership of the Site is presented in **Table 5.1**. Given the number of lots comprising the Site current titles were obtained for two of the nine lots comprising the Site. Copies of selected Certificates of Title are included as Appendix N.

Table 5.1: Summary of Land Title Information

Year	Source	Comments
Current Title		
2007	Lot 402 DP 603454	Owner of lot 402 DP 603454 identified as SITA Australia Pty Ltd.
Historical Title		
1989	Vol 14032 Fol 20	Owner of land comprising current Lot 402 identified as Menedi Pty Ltd
1988	Vol 14032 Fol 20	Owner of land comprising current Lot 402 identified as Camide Pty Ltd
1980	Vol 14032 Fol 20	Owners of land comprising current Lot 402 identified as M J Davis Industrial Pty Limited
1977	Vol 13348 Fol 124	Owner of land (Lot 1 and Lot 2) comprising current Lot 402 identified as M J Davis Industrial Pty Limited
1958	Vol 5516 Fol 103	Owners of land comprising current Lot 18 identified as Douglas Alexander McDonagh, of Earlwood messenger, and Christine Begg McDonagh his wife
1947	Vol 5472 Fol 152	Owner of land comprising current Lot 14 identified as Herbert Raymond Beavan of Lane Cove, plumber
1945	Vol 5472 Fol 152	Owner of land comprising current Lot 14 identified as John Alfred Leggo of Rockdale, joiner
1945	Vol 5516 Fol 103	Owner of land comprising current Lot 18 identified as Alfred Edmund Bailey of Leichhardt, draftsman
1938	Vol 4900 Fol 151	Owner of land comprising the current Lot 14 and Lot 18 identified as Clemton Pty Limited

Aerial Photographs

Historical aerial photographs from 1951, 1970, 1986, 1991, 1998, 2005 were obtained from NSW Land and Property Information for review. Aerial imagery from December 2015 was observed via Nearmap (<https://maps.au.nearmap.com>). Copies of the aerial photographs referenced above are included in Appendix O.



The aerial photograph review was conducted to ascertain a general history of the development of the Site and surrounding area. This review is summarised in **Table 5.2**

Table 5.2: Historical Aerial Photograph Review

Year	Observations
1951	<p>Site: The Site appeared to be covered with trees and vegetation, with no evidence of development.</p> <p>Surrounding area: The immediate surrounding area appeared to be similar to the Site and was predominantly vegetation/tree cover. A dirt road to the north was evident and consistent with the route of what is currently Davis Rd.</p> <p>In the surrounding area, there were extensive areas of trees and vegetated land in all directions. Roughly 500m to the north, there appeared to be a pipeline running E-W that connected to the edges of a visible water reservoir (known as the Prospect Reservoir). The Prospect Reservoir is consistent with today's imagery.</p> <p>To the south, approximately 200m, was a cleared areas which may have potentially been filled. In the greater southern and western surroundings, farming/cultivation activities and cleared land were evident.</p> <p>To the southwest of the Site (approximately 500m) was a cleared area with tracks visible.</p>
1970	<p>Site: The Site appeared similar to that shown in the 1951 imagery.</p> <p>Surrounding area: The surrounding land to the immediate south west appeared to be cleared and two commercial buildings evident. The land to the south (~300m) and to the south east (~400m) had also been cleared, with small amount of stockpiling visible.</p>
1986	<p>Site: The site appears similar to that shown in the 1970 imagery, with some clearing of trees around the edges of the Site.</p> <p>Surrounding area: The immediate and extended surrounding area to the south and west of the Site appeared to become cleared land. The area to the immediate south appeared to be a landfill with soil disturbance and excavation works evident. Commercial buildings were visible to the immediate east, northeast and north of the Site. There is a commercial area evident to the immediate north of the Site which has several buildings, a car park and containers evident.</p> <p>A canal was evident to the south east (~800m), which is consistent with today's layout.</p>
1991	<p>Site: The Site appeared to be cleared and developed for industrial activities. There appeared to be several dirt roads/paths around the Site, and a small commercial building was visible in the northern part of the lot.</p> <p>Surrounding area: The extended surrounding area to the east, greater south and greater south west developed further with more commercial/industrials buildings visible. The excavation works to the immediate south of the Site had been filled in and there was still visible soil disturbance/ and appeared to be divided into four different sections. An additional pipe is visible slightly further north and running parallel to the original pipeline. Davis Rd had further developed into a more developed, wider road.</p>
1998	<p>Site: Large industrial warehouse facility is present on the southern/centre portion of the site (waste transfer building), which is consistent with today's imagery. The building comprises of four large cylindrical, metal sections. There is a visible carpark/storage</p>



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Year	Observations
	<p>area. The dirt roads consistent with the previous imagery are still present, with some grass cover evident.</p> <p>Surrounding area: Further commercial development has occurred to the immediate east and to the greater southeast, south and southwest. The commercial lot to the immediate north appears to have further developed.</p> <p>The excavation works to the immediate south has some grass cover present; however, soil disturbance is still visible in sections. The area to the north west is cleared and appears to contain bare earth, possible stockpiled soil.</p>
2005	<p>Site: The Site appears similar to that shown in the 1998 imagery.</p> <p>Surrounding area: Further extensive commercial development has occurred in the immediate and greater surrounding areas of the Site. The excavation works to the immediate south has additional grass cover present, however, soil disturbance is still visible in sections.</p>
2015	<p>Site: The Site appears similar to that shown in the 2005 imagery. Possible skip type bins stored in the southern and western corner of the Site.</p> <p>Surrounding area: To the immediate south, the western and eastern sections of this previous excavation works, the area appears to be used to construction activities (visible excavators). There are visible areas of miscellaneous storage, several car parks and several commercial buildings. Powerlines and a gas holder are also visible on this section of land.</p> <p>To the immediate north, the commercial area appears to be a chemical manufacturing and storage facility, with multiple gas/chemical above ground storage tanks, pipelines and commercial buildings evident.</p> <p>To the immediate north east is a property, which appears to be used for the storage of waste materials (One Steel).</p> <p>The area to the immediate north west continues to be cleared and appears to contain bare earth, possible stockpiled soil.</p>

The Site has operated as a waste transfer station for non-putrescible waste since the 1990s, receiving development consent for the use in 1989. Since this time the location has been subject to several development applications associated with auxiliary uses to the primary waste resource recovery function of the Site.

Table 5.3: Site History

Date	Reference	Title
22 November 1989	Development Consent number 483A/89	Approved use on-site as a non-putrescible waste transfer station.
23 March 2004	Development application 2192/2003	Establishment of a timber stockpile for recycling of timber and timber by-products and the construction of a partially enclosed awning.
28 October 2005	Development application 816-2005	Extension of existing awning for the purposes of recycling cardboard and paper products as part



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Date	Reference	Title
		of the operation of the non-putrescible waste transfer station.
27 September 2007	Development application 1557/06	Use of existing recycling facility and waste transfer facility for the purpose of acceptance, temporary storage and transfer of secured asbestos material
23 December 2009	Development application 426.1/2009	Acceptance of putrescible waste and other waste at an existing waste recycling and transfer station.
2 December 2010	Development application 1028.1/2010	Retailing of compost material
4 June 2013	Consent number 7976	Consent to discharge industrial trade wastewater
4 August 2015 (final variation)	EPL 4548	

5.2 Approvals

The Proposal includes the continuation and consolidation of existing approvals on the Site. If the Proposal is approved, SUEZ would seek to surrender previously granted development consents relating to the Site to ensure it would operate in accordance with one consolidated planning approval. The development consent conditions for the Site are provided in Appendix C and the existing EPL for the Site is provided in Appendix B.

Development application 483A-89 for erection of a non-putrescible waste transfer station

In November 1989, the original approval was granted by Fairfield City Council for construction of a non-putrescible waste transfer station. The approval outlines conditions for the development of the Site, including conditions for stormwater, traffic, landscaping, site operation, noise air, amongst others.

Development application 2192/2003 for timber stockpile and the construction of a partially enclosed awning

In March 2004 conditional development consent was granted for the establishment of a timber stockpile for the recycling of timber and timber by-products, and for the construction of a partially enclosed awning. The approval was conditional upon the acceptance of timber for recycling and timber by-products on Site not exceeding 30,000 m³ per year, with the stockpile of timber not being greater than 3 m in height. The stockpiled timber must be regularly removed and replenished and should only contain non-contaminated timber by-products at all times. The consent also required 19 car parking spaces, including one disabled space, to be provided on the Site.

Development Application 816-2005 for the extension of existing awning

In October 2005 Development Approval was granted for the extension of the existing awning to the west of the current building on the Site. This was for the purpose of recycling cardboard and paper products as part of the operation of the existing waste transfer station. The conditions of consent required that the awning not be enclosed, that all existing drainage pits within the awning area be sealed, and that the storage and recycling of cardboard and paper products received on the Site shall not exceed 1500 tonnes per month. Car parking requirements were imposed for the provision of 24 off-street car parking areas for staff and visitors and one off-street car parking space for disabled persons.

An Occupation Certificate (issued in relation to Construction Certificate 758/2005 issued 10 November 2005) was granted by Fairfield City Council on 19 January 2007 for the extension of the awning.



Development application 1557/06 for acceptance, temporary storage and transfer of asbestos

Development consent was granted in September 2007 enabling the facility to accept up to 10 m³ of asbestos waste per week. A permanent record or receipt for the acceptance of asbestos waste shall be kept and maintained up to date at all times.

Development application 426.1/2009 for the acceptance of putrescible waste

Development consent for the acceptance of putrescible waste at the existing waste recycling and transfer facility was granted in December 2009. The amount of putrescible waste that can be accepted on the site is limited to 10,000 tpa with any proposed increase in output requiring development consent. A permanent record or receipt for the acceptance of all putrescible waste is required to be kept and maintained up to date at all times.

Development Application 1028.1/2010 for the retailing of compost material

In December 2010 development consent was granted for the retailing of compost material at the Site. This included conditions requiring that the area used for the storage of the compost material be enclosed by a bund wall to prevent any spillage into the stormwater system and that it be covered at all times when not in use. The amount of compost material permitted to be stored on the site shall not exceed 40 m³ and no odour shall be emitted from the compost.

Environmental Protection Licence 4548 associated with waste storage and transfer

The EPL details the waste types that can be accepted on-site for storage including office and packaging waste, wood waste and asbestos waste. Putrescible waste is limited to 10,000 tonnes to be received per year under this licence, with the authorised amount of waste permitted on the premises being 2,400 tonnes at any one time. Putrescible waste must also be stored separately to all other types of waste and must be removed within 24 hours of it being received at the premises. The final variation of this licence to date was issued on 4 August 2015.

5.3 Existing Infrastructure

Key existing infrastructure at the site includes the following. An existing site layout is provided in Figure 1.1.

- Access road and weighbridge area;
- Main transfer building;
- Administration and Amenities area;
- Car Park Asbestos Storage Area



General Site Layout

The buildings have a site coverage of approximately 25% with the roadways, car parking, external storage and weighbridge providing an additional site coverage of 40%. Approximately 35% of the Site is soft landscaping including trees, grasses and bushes.

Main Transfer Building

The main transfer or resource recovery building is the predominant structure on the Site and includes a workshop and administration facilities. The main building is approximately 50m wide (east-west) and 70m long (north-south). The awning located to the west of the main building is approximately 50m long and 30m wide at the northern end, curving to meet the building at the southern end.

A 1.5m deep surge pit splits the interior of the building into two main processing areas. Some recyclables are removed and sorted by site plant. The residual waste is pushed along the surge pit by a bulldozer, through a waste pit, into transfer trucks parked on the lower loading level.

Designated areas for recoverable and recyclables are located around the internal perimeter of the main hall and include: Paper and Cardboard, waste oil, e-waste, metal, polystyrene, gas bottles, batteries, etc.

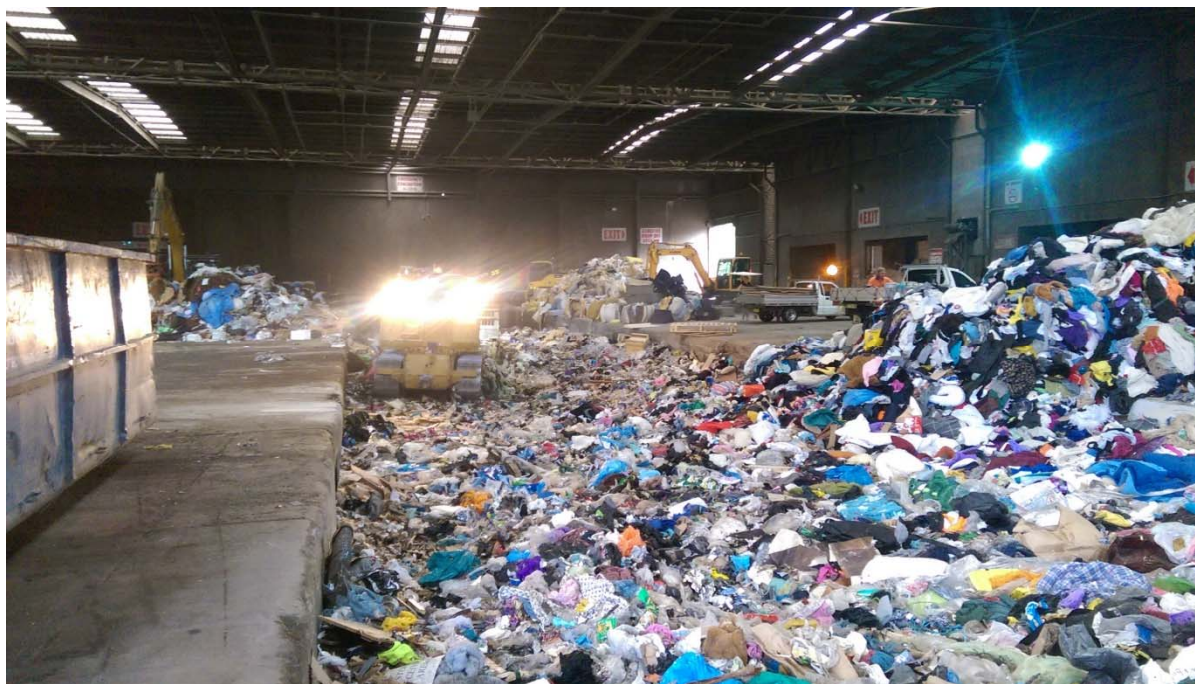


Figure 5.1: Inside the main transfer building

Dust suppression system

A dust suppression system is installed at the Wetherill Park Resource Recovery Facility. The system produces an ultra-fine water fog that attracts and holds dust particles, so they can be more readily removed from the working area. The system is turned on by the operating staff (at their discretion) before and during unloading of tipping vehicles, and when a particularly dusty load is detected, or for other purposes as required. This system is also able to be switched to an intermittent cycle, so that dust is being managed constantly throughout the day.

A sprinkler system is also in place above the waste loading pit, to mitigate dust impacts arising from the loading of waste. This is required to be switched on whenever waste material is being loaded into the pit.

Odour Suppression System

An automated odour suppression system has been installed in the roof over the waste surge pit as an odour mitigation technique. Odour suppressing compounds are utilised in the ultra-fine water fog.



Weighbridge

Vehicles entering the facility to dispose / transfer materials are required to enter / exit via a weighbridge. Vehicles disposing of material are directed to the appropriate disposal area via the weighbridge operator.



Figure 5.2: Weighbridge

Site Access and Internal Traffic Flow

The site interface with the public roadway consists of a combined entrance and exit located in the north-east corner of the Site. The entrance is shared by both commercial and domestic users to the Site.

Domestic and commercial drop-off vehicles are separated after the weighbridge, with domestic traffic guided to a western doorway and commercial traffic to an eastern doorway of the main transfer building. Drop off vehicles enter this main building on the northern elevation.

Prior to the weighbridge, turnoffs are provided for commercial pick-up traffic and car parking facilities. Pick-up vehicles travel down the eastern boundary of the Site to enter the main building in the south-east corner at the lower level.

Domestic and commercial drop-off vehicles, and commercial pick-up vehicles all exit the main building from the south western corner, with commercial pick-up vehicles on a lower level roadway. The road follows the western boundary of the Site, passing to the west of a transmission line tower towards the north-west corner of the Site. The road then follows the northern site boundary, to the weighbridge to exit the Site in the north-east corner.

Figure 5.3 provides the current traffic flow for the Site.

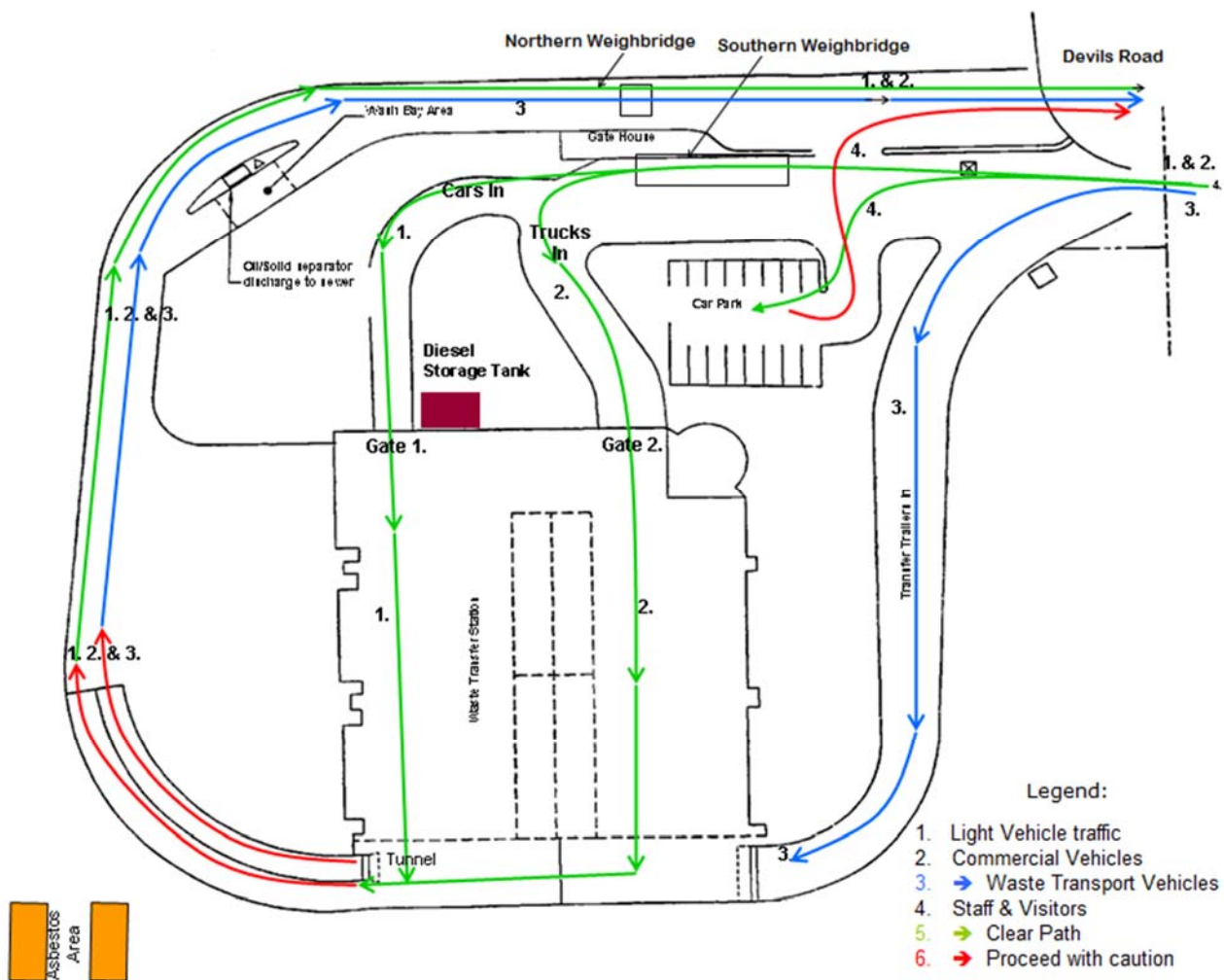


Figure 5.3: Current Traffic Flow

Car Park

There are currently 21 spaces provided for off street car parking near the entrance of the Site, with 5 car park spaces opposite the gatehouse and 16 car park spaces near the administration building.



Figure 5.4: Car park

Easements

The Site has a 5.0m wide easement along the length of the northern boundary for water drainage (DP249417). The exit weighbridge abuts this easement to the centre of the boundary with the exit roadway being built on the easement, along the northern boundary.

The Site also has an easement to the north of the resource recovery building for overhead electrical cables. This easement is 30.48m wide, across the full width of the Site, approximately 25m south of, and parallel to, the northern boundary of the Site. Beneath the easement are access roads and car parking. A transmission line tower is located to the west of the Site, on the line of the cable easement, and occupying an area approximately 20m by 20m. This is immediately surrounded by a grassed area.

Asbestos Disposal Containers

Approved asbestos storage facilities are external to the main covered areas and found in the south of the Site. The asbestos storage area is approximately 200 sqm and the actual asbestos storage facilities consist of several shipping container size containers. This area is accessible to the public only under direction and escort by SUEZ.



Figure 5.5: Asbestos Disposal Area

Surface Water

A layout of the stormwater management system is provided in Figure 5.8 and a detailed description is provided in Table 5.4. All driveways, carparks and working areas on the Site are sealed. Surface water runoff from the driveways, parking areas and roof runoff are directed to stormwater via a number of stormwater pits. Clean stormwater is kept separate from wastewater and prevented from entering the sewer. All stormwater pits on Site have been fitted with a strainer to remove litter and gross pollutants. The stormwater pits (shown on Figure 5.8) drain to a 5,000 L holding tank (#18 on Figure 5.8), which drains via a pipe into the stormwater discharge point on Davis Road. The main holding tank (#18) has a keystone valve to stop storm water from leaving the Site in case of spills.

Should a spill occur on the Site the keystone valve is shut, and impacted stormwater is either pumped to the on-site wastewater treatment plant for treatment or if the on-site wastewater treatment plant is at capacity, transported off-site via vacuum truck to an approved facility for treatment.

Wastewater

Wastewater is produced from the following site activities: moisture from incoming waste (leachate), facility wash down, dust suppression and wheel wash.



All water that comes into contact with waste is considered leachate. The floor of the main receiving hall is designed to direct all leachate to a 1,000 L above ground containment tank (#19 on Figure 5.8). The leachate is then pumped to the wastewater treatment plant. Two holding tanks (5000 L each, #21 on Figure 5.8) are located next to the wastewater treatment plant to hold any excess wastewater while the plant is in operation. The wastewater treatment system includes equipment for solids separation and pH adjustment. From the wastewater treatment plant treated wastewater is discharged to sewer under a trade waste agreement with Sydney Water (Consent 7976). Refer to Appendix D for the Trade Waste Agreement. Currently, the site produces approximately 700 litres of wastewater per day.

The existing leachate management layout is provided in Figure 5.6 and described in more detail in Table 5.4.

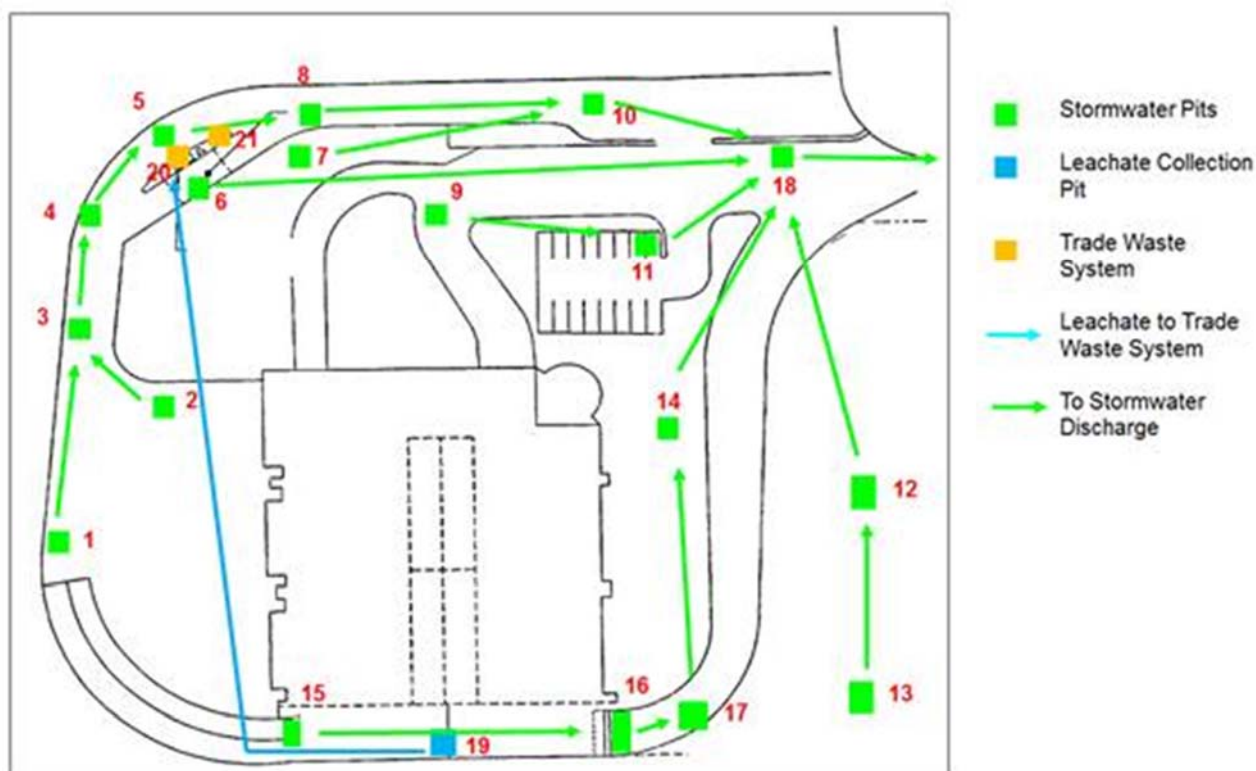








Figure 5.6: Stormwater and Leachate Management Layout (Not to Scale)

Table 5.4: Details of stormwater management system

Number	Photo	Description
1 – 11		Stormwater Drains 1 to 11 have a 600 x 600mm grate with a debris basket.





ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Number	Photo	Description
12 – 14		Stormwater Drains 12 to 14 have 1m x 1m grates
15		Stormwater Drain 15 is a dish drain 330mm wide x 100mm deep, located at the exit end of the loading tunnel. This collects the stormwater from the exiting roadway.
16		Stormwater Drain 16 is a dish drain 300mm wide x 100mm deep, located at the entrance to the loading tunnel. This collects stormwater from the entrance end of the loading tunnel.
17		5,000 L Underground Stormwater Holding Tank. Holding tank is pumped out using 2 electric pumps to stormwater.
19		1,000 litre leachate tank is located in the loading out tunnel at the southern end of the site. This tank collects the leachate from the main hall before being pumped through a 100mm pipe to the waste water treatment plant.



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Number	Photo	Description
20		<p>The Waste water treatment plant and wheel wash are located at the northwest corner of the site. From the wastewater treatment plant, treated water is discharged to sewer.</p> <p>The wheel wash has a grate 600x600mm with a debris basket.</p>
21		<p>2 x 5000 L underground tanks located next to the waste water treatment plant. They are to hold any excess waste water while the waste water treatment plant is in operation.</p>

Water Supply

Currently all water required for site activities is supplied by Sydney Water. 2 x 25000 L rainwater tanks exist on-site to supplement the water supply, but are not currently in use. No water is sourced from groundwater bores. The current water demand is approximately 3,000 litres per day. Site activities include: personal use (toilets, basins), landscape, dust suppression, facility washdown, and wheelwash.

5.4 Existing Operation

The site continues to operate under the original 1989 development approval (438A/89) for use as a waste transfer station. The additional consents have permitted the storage and recycling of timber, receipt of asbestos waste, retail of compost and the acceptance of a limited amount of putrescible waste (up to 10,000tpa).

The Site currently accepts waste from both commercial and domestic users. The Site receives around 191 vehicles each weekday to deposit waste. This equates to approximately 10,000 tonnes of putrescible waste, and 90,000 tonnes of recyclable waste per annum. An average of 191 vehicle movements per day are recorded leaving the site for removal of waste. This is a mixture of trucks transferring waste to landfill and transferring waste for re-use or further processing off-site.

The following waste types are approved for storage and/or transfer at the Site:

- Municipal waste, being waste consisting of:
 - Household domestic waste that is set aside for kerb side collection, or delivered by the householder directly to the waste facility, or
 - Other types of domestic waste (e.g. domestic cleanup and residential garden waste), or
 - Local council generated waste (e.g. waste from street sweeping, litter bins, and parks).
- Office and packaging waste (e.g. paper, plastics, glass, metal, and timber) that is not mixed with any other type of waste.



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- Non-chemical waste generated from manufacturing and services (including metal, timber, paper, ceramics, plastics, thermosets, and composites).
- Used, rejected, or unwanted tyres (maximum five tyres from a household).
- Small household quantities of sump oil and paint.
- Waste materials for recycling (domestic quantities only) e.g. PET and PPE bottles, used car batteries, paper, and cardboard etc.
- Household waste from municipal clean up that does not contain food waste.
- Waste collected by or on behalf of local councils from street sweeping.
- Virgin excavated natural material
- Wood waste
- Waste mineral oils unfit for the original use.
- Gas bottles
- Lead acid batteries
- Asbestos waste
- Building & demolition waste
- General specific exempted waste [waste that meets all the conditions of the resource recovery exemption under clause 51a of POEO (Waste) regulation 2005.]

Any material that does not fall into these is not accepted. This includes, but is not limited to, wastes classified in Schedule 1, Parts 1 and 3 of the *Protection of the Environment Operations Act 1997*, as hazardous or industrial waste.

Specific waste types not able to be accepted at the Wetherill Park Resource Recovery Facility include;

- Tree trunks and roots;
- Large and shredded tyres;
- Expanded plastics e.g. polystyrene where the volume in the load is >50%;
- Security wastes e.g. expired food stock; and
- Special wastes.

Putrescible waste is also required to be retained on the site for no more than 24 hours under the conditions of the Environmental Protection Licence.

The Site is approved to operate 24 hours 7 days a week. These hours are in accordance with the approvals for the Site, and are consistent with other operations in the locale.

As described above drop off vehicles enter the Site via the Weighbridge and enter the main transfer building on the higher elevation. Domestic traffic is guided by the Weighbridge operator to the western end and commercial traffic to the eastern end of the main transfer building.

Waste loads are delivered to the floor of the main hall, and pushed into the 1.5 m deep surge pit that splits the interior of the building. Some recyclables and recoverable resources are removed and sorted by on-site plant.

Designated areas for recoverable and recyclables bays are located around the internal perimeter of the main hall and include:



- Paper and cardboard
- Waste oil
- E-waste
- Metal
- Polystyrene
- Gas bottles
- Batteries
- Synthetic fibres,
- Waste mineral oils,
- Waste ink/dye,
- Mattresses,
- Tyres
- Bricks and concrete

The recyclables are transported off-site to recyclers or specialist manufacturers for reprocessing into new products.

The residual waste is pushed along the surge pit by a bulldozer, through a waste loading pit, into transfer trucks parked on the lower loading level.

Dust and odour suppression systems can be operator control or automatic and are in the main hall and the waste

Pick-up vehicles enter the main building in the south-east corner at the lower level.

Asbestos arrival at the Site is via a booking system. Asbestos is received by site personnel at the weighbridge, from the weighbridge the public only under direction and escort by SUEZ dispose of asbestos in the asbestos storage area.. Asbestos is stored in two purpose built enclosed bins as per Development Consent DA 1557/06, maximum of 10 m³ per week.

The Site has also historically received approval to:

- Process timber and timber by-products as per Development Consent Conditions DA2192/2003. Up to 30,000 m³ of timber could be processed per annum, with maximum stockpile heights of 3m. However, timber is currently not processed or stored on Site.
- Stockpile a minor amount of high grade compost of up to 40m³ on-site and sell small volumes of compost (box trailer / utility loads) from the site as per Development Consent Conditions 1028.1/2010. Compost is currently not processed on-site.

Existing site equipment includes:

- Dozer
- Excavator (3)
- Front End Loaders (2)
- Bobcat
- Forklift



5.5 Existing Environmental Monitoring

Trade Waste Monitoring

In accordance with Sydney Water Trade Waste Agreement # 7976 (Appendix D), regular sampling is conducted of the trade waste. Trade waste is monitored on every 60 days for pH, biological oxygen demand, oil and grease, ammonia, zinc, lead, iron, sulphate, suspended solids

Odour, Dust, Noise

Odour, dust and noise are monitored via a complaints raised system. No specific monitoring is required or quantitative targets set by the EPL or the development consent conditions.

5.6 Past Environmental Performance

The Wetherill Park Resource Recovery Facility has a sound environmental record, with no records of odour or other complaints and no non-compliances since 2011 and is considered to operate efficiently and effectively in accordance with existing approval documentation.

A notice of non-compliance with the EPL condition requiring removal of putrescible waste after 24 hours has been received on one occasion in 2011.

Based on a review of recent records, trade waste discharge has complied with the trade waste agreement.

5.7 Environmental Management

SUEZ' existing environmental and occupational health and safety management systems keep abreast of legislative changes, governmental regulations and the rules of the SUEZ group. Risk prevention remains a priority, with an internal audit system used to check the reliability of the facilities. SUEZ sites are certified as meeting a range of national and international certifications including ISO 14001 Environmental Management, ISO 9001 Quality Management and AS 4801 Occupational Health & Safety Management.

The guiding documents for environmental management of the facility include:

- Environmental Management Plan, Wetherill Park Resource Recovery Facility, SITA, October 2015
- Pollution Incident Response Management Plan, Wetherill Park Resource Recovery Facility, SITA, April 2015
- Traffic Management Plan, Wetherill Park Resource Recovery Facility, SITA, December 2012
- Emergency Response Plan, SITA Australia, September 2014 Version 3.0

And operating procedures, including (but not limited to):

- PROC001 Legislative Requirements
- PROC005 Emergency Management
- PROC007 Monitoring and Measurement
- PROC008 Incident Reporting and Corrective Action
- PROC010 Audit Procedure
- SOP007 Spill Response
- SOP041 Site Maintenance – Infrastructure Facilities
- SPO047 Site Maintenance – Transfer Stations

These documents provide the framework for managing and mitigating environmental impacts and make provisions for auditing the effectiveness of the environmental protection measures and procedures.



CHAPTER 6 ENVIRONMENTAL SETTING

Chapter 6 provides a summary of the environmental setting of the site. The following table outlines the relevant SEARs.

<ul style="list-style-type: none">■ The Secretary's Environmental Assessment requirements<ul style="list-style-type: none">■ <i>Identification of water and soil resources, drainage lines, watercourses and riparian lands;</i>■ <i>A description of the existing environment, using sufficient baseline data;</i>	<p>Chapter 4</p> <p>Chapters 9-17 for specific identified key issues</p>
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6.1 Surrounding Land Use

The Wetherill Park Resource Recovery Facility property is bounded to the north and east by industrial estates. A mostly vegetated mound (former landfill) is located to the south of the Site, while bushland is located to the west. According to the Fairfield LEP 2013, the bushland is currently zoned as 'Western Sydney Parklands'. The land to the north, east and south as well as the site itself is zoned IN1 'General Industrial'.

The nearest residential properties are located approximately 1500m to the west and south of the Site as shown in Figure 6.1. There is no direct view path of the Wetherill Park Resource Recovery Facility from the nearest residential properties. The nearest residential property to the north is approximately 4000m away from the Site, separated from the site by Prospect Reservoir, bushland and the M4 motorway. The nearest residential property to the east is approximately 2500m away from the site. The nearest school is the Aspect Western Sydney School for Children with Autism, located approximately 2000m to the south east of the Site.



Figure 6.1 Location of nearest residential properties and schools (Source: Nearmap) Not to Scale



6.2 Geology

The Site is underlain by shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone and rare coal and tuff (Clark 1991).

6.3 Soil

Soil in the area of the site comprises Kurosols and form part of the Blacktown soil landscape. Soils are generally shallow to moderately deep (>100 cm), hardsetting 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). The area is underlain by shales of the Wiannamatta group (eSPADE 2015). Clay within the Kurosols may be dispersible and erodible once vegetation is removed (Landcom 2004). Being clay soils, kurosols are cohesive soils with generally low permeability.

6.4 Potential Acid Sulphate Soils

The area is classified as having extremely low likelihood of the presence of acid sulphate soils with a very low confidence (ASRIS 2015). No acid sulphate soils risk is noted in the Fairfield LEP (2013) for the Site.

6.5 Salinity

The Site has a moderate salinity potential, meaning that saline areas may occur in this area, which have not yet been identified or may occur if risk factors change adversely (Department of Infrastructure Planning and Natural Resources (DIPNR) 2003).

6.6 Soil Contamination

EPA Searches

A search of online records held by the NSW EPA was undertaken to identify potential site contamination. The search findings are presented below.

Contaminated Land Management Act 1997 Notices

An on-line search on 13th of January 2016 of the 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. Four sites within the Council LGA were identified as having current or former notices issued under the provisions of the *CLM Act*. The search indicated that the closest premise with a current or former notice is located approximately 4.4km from the Site.

It is considered that the premises identified in the search would have a low potential to impact upon the Site.

Notifications under Section 60 of the CLM Act

The NSW EPA maintains a List of NSW contaminated sites notified to the EPA under Section 60 of the *CLM Act*. Sites on this list indicate that the notifiers consider that the sites are contaminated and warrant reporting to EPA. The contamination at the Site may or may not be significant enough to warrant regulation by the EPA and the EPA reviews relevant site information before making a determination as to whether or not the site warrants regulation. An online search for notified sites in Wetherill Park on 13 January 2016 was conducted. There were **no** sites found within 500m of the Site, in the results of the search. The closest site was located 750m from the Site.

It is considered that the premises identified in the search would have a low potential to impact upon the Site.

EPLs under the Protection of the Environment Operations Act 1997

The NSW EPA maintains a public register of premises subject to environment protection licences under the POEO Act.

An online search for premises in the Wetherill Park was performed on 13th January 2016. The result of the search, limited to premises within 500m of the Site, is presented in the table below.



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Table 6.1: EPL Search Results

Premises	Approximate distance and direction from site	Activity type	Licence status
Australian Aluminium Pty Ltd, 12 – 14 David Rd, Wetherill Park	270m to east	Hazardous, Industrial or Group A Waste Generation or Storage	Issued
Albright & Wilson (Australia) Limited, 22 Davis Rd, Wetherill Park	50m to north	Chemical production waste generation Chemical storage waste generation Dangerous goods production General chemicals storage Soap and detergents production	Issued
Eco Cycling Materials Pty Ltd,	100m to south/southeast	Non-thermal treatment of general waste Waste storage - other types of waste	Issued
Emoleum Road Services Pty Ltd,	300m to northeast	Bitumen mixing	Issued (No Longer in Force)
Onesteel Recycling Pty Ltd, 23 Davis Rd, Wetherill Park	300m northeast	Scrap metal processing	Issued
SUEZ Waste Resource Recovery Facility (SITA Australia Pty Ltd), 20 Davis Rd, Wetherill Park	Site	Non-thermal treatment of general waste Waste storage – hazardous, restricted solid, liquid, clinical and related waste and asbestos waste Waste storage - other types of waste	Issued

It is considered that the premises identified in the search would have a low potential to impact upon the Site.

Section 149

Council documentation for the Site including a Section 149 (2) was searched and is provided in Appendix E.

The s149 certificate for the Site 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*.



Summary

Since development of the Site, it has been used only as a waste transfer station specifically built for this purpose. The construction of the facility combined with the use of appropriate procedures for handling and transfer of waste material, which the facility is licenced to receive, will minimise the potential for loss of containment and subsequent contamination of the underlying soil and groundwater.

6.7 Topography

The surrounding land (and therefore the flow direction of surface water) falls to the east, from an elevation of approximately RL 100 mAHD at a point 1.5 km to the west of the Site, to RL40 mAHD at the Site to RL 35 mAHD at a point approximately 750 m to the east of the Site, near Prospect Creek. The land towards the south is relatively flat, while it is rising gently to the north towards Prospect Dam. The exception to this is a closed landfill mound to the south of the Site rising to an elevation of between RL 55 mAHD (Google elevation data) and RL 68 mAHD (Nearmap elevation data).

The levels on the Site itself range from approximately RL39 mAHD at the Site entry to nearly RL42 mAHD near the southwestern corner of the Site. The floor levels of the main transfer station building are at approximately RL41 mAHD. The underground truck loading bay floor levels are at approximately RL35 mAHD.

6.8 Groundwater

A search of on-line records held by the NSW Department of Primary Industry, Office of Water was performed on 12 January 2016. The search indicated there were three licensed groundwater bores located within 500m of the Site. The results of the search are summarised in Table 6.2.

Table 6.2: Summary of Groundwater Bore Information

Bore	Approximate distance and direction rom Site	Depth (m)	Standing water level (m bgl)	Comments
GW103822	200m to southeast	9m	-	-
GW103823	200m to southeast	15m	-	-
GW103824	200m to southeast	15m		

6.9 Water Courses

The Site is located within the upper reaches of the Georges River catchment. The nearest waterbody is an unnamed channel / creek approximately 420m to the south of the Site. The channel is a tributary to Prospect Creek, which is located approximately 1150m to the northeast of the Site. Prospect Reservoir is located approximately 800m to the northwest and north of the Site. Refer to Figure 6.2 for the location of the surface water bodies nearest to the Site.

A Sydney Water supply pipeline is located approximately 350m to the north of the Site and runs in an east – west direction.

6.10 Riparian Lands

The nearest riparian lands are associated with the unnamed channel / creek approximately 420m to the south of the Site and Prospect Creek, which is located approximately 1150m to the northeast of the Site (Fairfield LEP 2013). Refer Figure 6.2 for an extract of the LEP showing riparian lands and buffer zones.

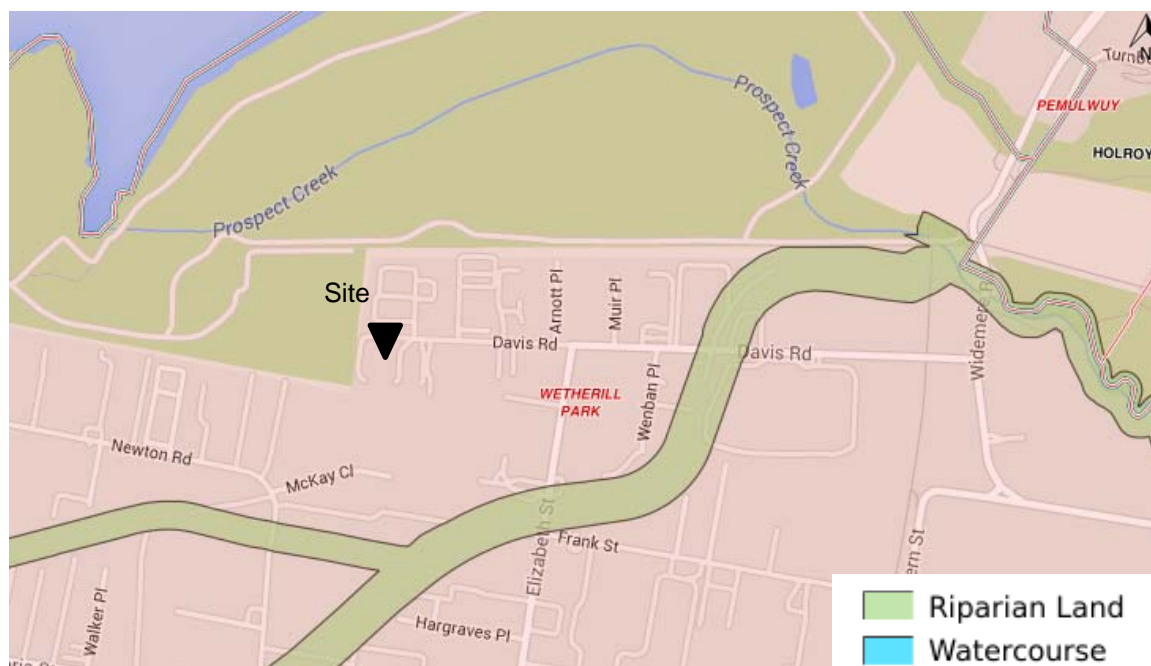


Figure 6.2: Location of nearest surface water bodies and riparian zones, Not to Scale (DPE 2016)

6.11 Flooding

According to the Section 149 Certificate, the Site is identified as being partly within a medium flood risk precinct, partly within a low flood risk precinct and partly not affected by local overland flooding.

Flood levels are summarised in Table 6.3. For a copy of the Section 149 Certificate, refer to Appendix E.

Table 6.3: Local Overland Flood Levels 2

Size of Flood	Flood Level (mAHD)
Probable Maximum Flood (PMF)	39.2 – 40.8
100 Year ARI	39.2 – 40.5
20 Year ARI	39.2 – 40.3

6.12 Climate and Meteorology

Climate

According to the Bureau of Meteorology, the nearest weather station from the site is at Prospect Reservoir, approximately 2.5 km to the northeast of the Site. Table 6.3: Local Overland Flood Levels 2 summarises key climate statistics at Prospect Reservoir and Figure 6. shows mean rainfall and mean maximum temperature. Weather data has been collected for years from 1965 to 2016 for all data except for rainfall (collected since 1887), humidity (collected from 1974 to 2001) and cloud cover (collected from 1968 to 2001).

Table 6.4: Key Climate statistics, Prospect Reservoir weather station (067019)

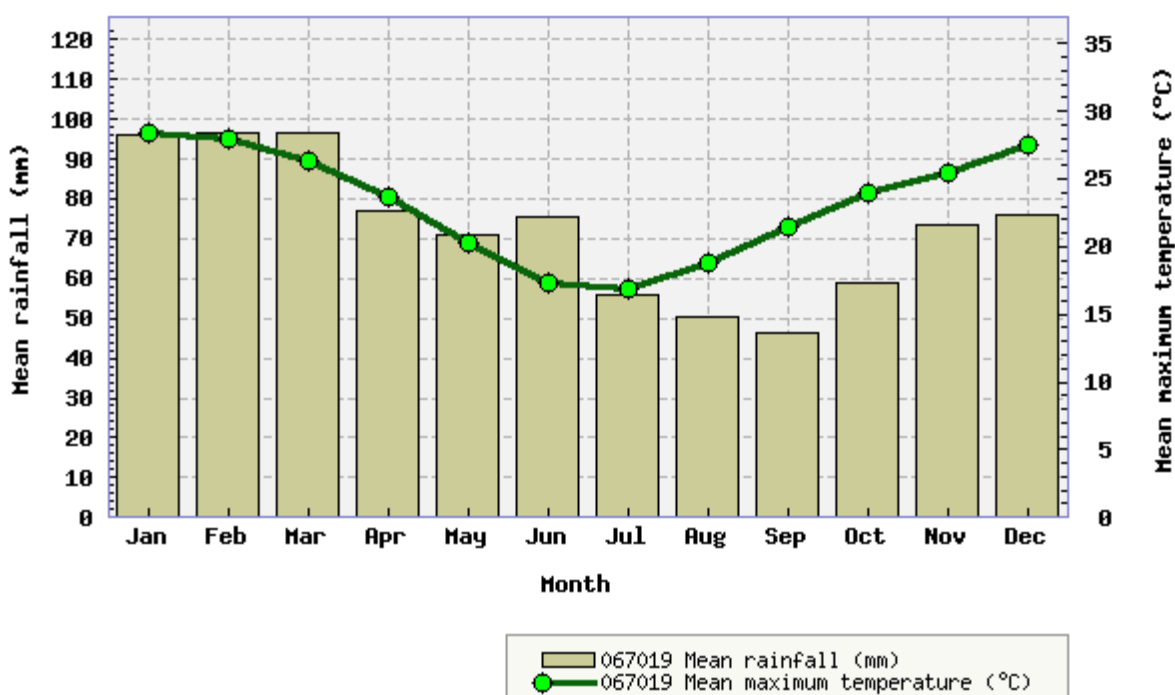
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
Mean maximum temperature (degrees C)	28.4	27.9	26.3	23.7	20.3	17.3	16.8	18.8	21.4	23.9	25.5	27.5	23.2
Mean minimum temperature (degrees C)	17.7	17.8	16.1	13	9.9	7.5	6.1	6.8	9.4	12.1	14.3	16.3	12.2
Mean rainfall (mm)	96.3	96.5	96.6	77.2	70.8	75.4	56.1	50.2	46.4	58.7	73.6	75.9	873.6



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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
Mean daily evaporation (mm)	5.5	4.7	3.9	2.9	2	1.6	1.7	2.5	3.6	4.4	4.9	5.6	3.6
Mean 9am wind speed (km/h)	7.5	7	7.3	8	7.7	8	8.1	9.2	9.6	10	8.5	8.2	8.3
Mean 9am relative humidity	75	79	79	77	80	79	76	70	65	65	70	70	74
Mean 9am cloud cover (okas)	4.8	4.9	4.5	3.7	3.8	3.6	3.2	2.9	3.2	4	4.4	4.5	4
Mean 3pm wind speed (km/h)	12.7	12.4	12	11.5	10.3	12.3	12.4	14.3	15.3	15.4	14.4	14.5	13.1
Mean 3pm relative humidity (%)	52	54	55	52	57	55	50	45	45	46	50	49	51
Mean 3pm cloud cover (oktas)	4.8	5	4.8	4.2	4.3	4.2	3.9	3.8	3.9	4.4	4.8	4.6	4.4

Location: 067019 PROSPECT RESERVOIR



Australian Government
Bureau of Meteorology

Figure 6.3: Rainfall and temperature averages at Prospect Reservoir weather station

Wind

On an annual basis, the predominant wind direction is southwest. Seasonal wind roses show strong seasonal variations in predominant wind directions: south easterlies for summer, and south westerlies for all other seasons. Figure 6.4 shows the seasonal wind roses at the site. For a detailed discussion and guidance on interpretation of wind roses, refer to Appendix J.



Annual and Seasonal Windroses

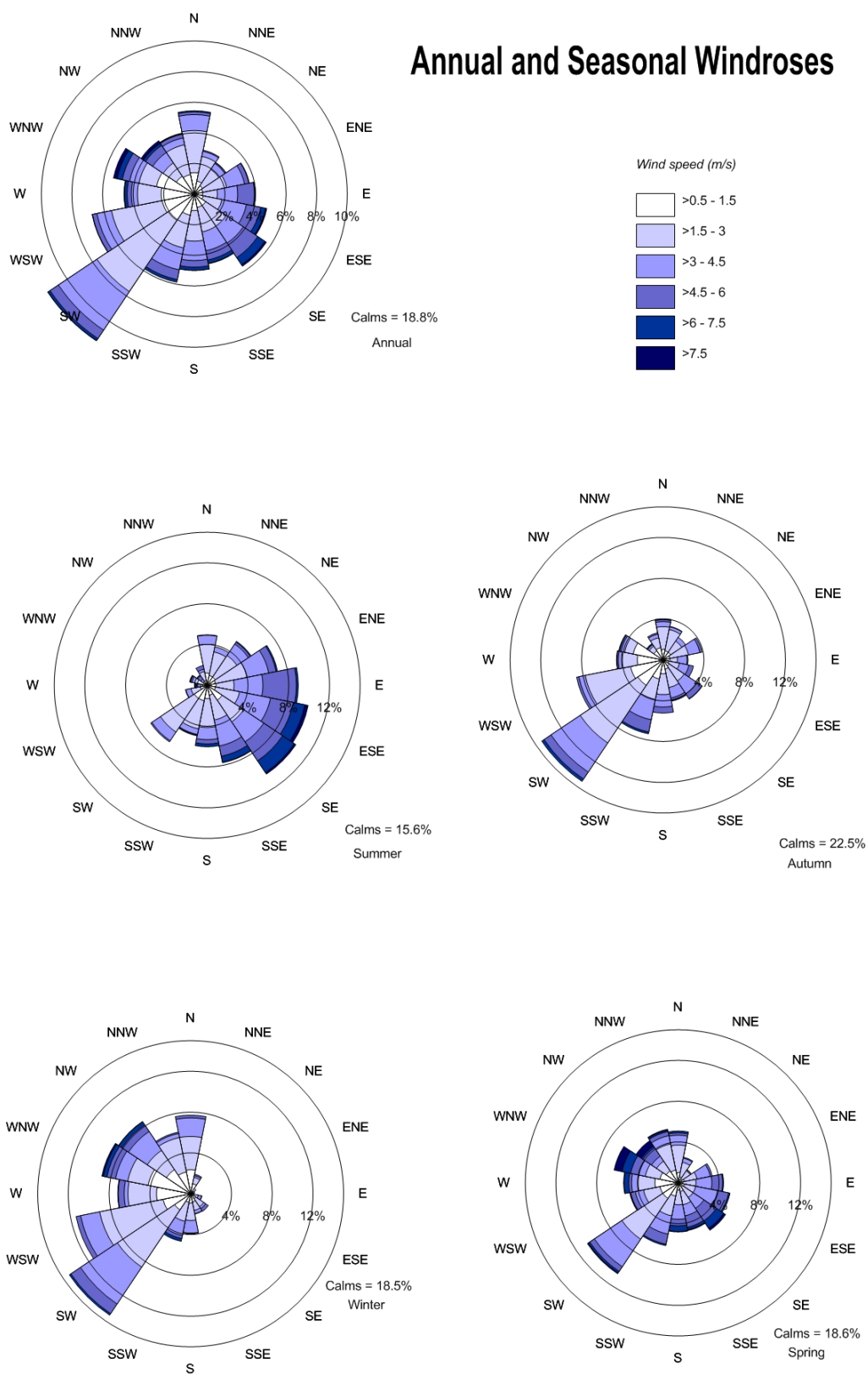


Figure 6.4: Annual and seasonal wind roses for the project site for 2013 (CALMET extract)



CHAPTER 7 ENVIRONMENTAL RISK ANALYSIS

The SEARs requires SUEZ to provide an environmental risk assessment (ERA) of the Proposal to identify the key issues for further assessment within the EIS. This Chapter responds to that requirement.

<ul style="list-style-type: none">■ The Secretary's Environmental Assessment requirements:<ul style="list-style-type: none">■ Risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment;	Chapter 7
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The Environmental Risk Assessment (ERA) process began at the preparation of the Request for SEARs documentation (submitted 8 September 2015) for the Proposal, and was further developed in the preparation of this EIS. The risk assessment process was used to scope the environmental investigations and guide project design.

The ERA enables the EIS to:

- Identify and address the environmental issues identified as key issues in the Proposal Request for SEARs report. This includes consideration of the significance of the potential environmental impacts and the effectiveness of the proposed management measures in minimising degradation or deterioration of the biophysical, economic or social environment.
- Identify those potential environmental impacts that are not key issues, including those that would be expected to respond well to appropriate mitigation measures and management.
- Identify residual environmental impacts likely to remain after the application of the mitigation measures. Where significant residual impacts remain, this may require greater commitment to management strategies to mitigate the effect or, in some instances, appropriate modifications to the design of the Proposal.

7.1 Identification of Key Issues - SEARs

The Request for SEARs Report identified key issues, which were built upon within the SEARs for the Proposal as issued 6 October 2015. These key issues were identified as:

- Waste Management;
- Air Quality and Odour;
- Traffic and Transport;
- Noise;
- Soil and Water;
- Hazards;
- Visual Amenity and;
- Socio-Economic.

7.2 Risk Analysis Methodology

The ERA has been undertaken in accordance with the principles of the *Australian and New Zealand Standard AS/NZS 4360:2004 – Risk Management*. The analysis involved ranking the risk of each identified potential impact by identifying the consequences of the impact and the likelihood of the impact occurring.



Evaluating Consequences

The first steps involve identification of the consequence levels should a particular impact occur. Definitions of the consequence levels used are provided in Table 7.1.

Table 7.1: Risk Analysis - Definition of Consequences

Consequence level	Definition
Catastrophic	<ul style="list-style-type: none"> Would cause long-term and irreversible impacts. Would result in a major prosecution under relevant environmental legislation.
Major	<ul style="list-style-type: none"> Would cause medium-term, potentially irreversible impacts. Would result in a fine or equivalent under relevant environmental legislation.
Moderate	<ul style="list-style-type: none"> Would result in medium-term, reversible impacts.
Minor	<ul style="list-style-type: none"> Would result in short-term, reversible impacts.
Insignificant	<ul style="list-style-type: none"> Would result in minor, negligible impacts.

Evaluating Likelihood

The next step involves identifying the likelihood of an impact through the consideration of 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 – the event is almost certain to occur in the course of normal or abnormal operating circumstances.
- Likely – the event is likely to occur in the course of normal operations.
- Possible – the event may occur in course of normal operations.
- Unlikely – the event is unlikely to occur in the course of normal or abnormal operating circumstances.
- Very unlikely – the event may occur in exceptional circumstance only.

Risk Assessment Matrix and Rating

The risk rating has then been determined by combining the consequence and likelihood according to the matrix in Table 7.2.

Table 7.2: Risk Assessment Matrix

	Likelihood					
		Very likely	Likely	Possible	Unlikely	Very unlikely
Consequence	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 as shown in Table 7.3 below.



Table 7.3: 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 either require no 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 have 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 – for example, from 20 (high) to 8 (medium).
- **Effective** – the measure would decrease the risk rating score by 7 points – for example, from 12 (high) to 5 (medium).
- **Partly effective** – the measure would decrease the risk rating score by 3 points – for example, from 6 (medium) to 3 (low).
- **Not effective** – the measure would not change the risk rating.

7.3 Environmental Risk Analysis

Using the risk framework from Section 7.2, an ERA has been undertaken for the Proposal based on investigations and assessment of the environmental issues during the preparation of the EIS and considers the input from various government agencies and other stakeholders during the consultation process.

The relative chapters of the EIS including potential impacts and benefits and consideration of proposed mitigation and management measures. Mitigation and management is detailed in full in the (draft) Compilation of Mitigation Measures (Chapter 18 of the EIS).

The results of the environmental risk assessment are presented in Table 7.4.



ENVIRONMENTAL IMPACT STATEMENT - WETHERILL PARK RESOURCE RECOVERY FACILITY

Table 7.4: 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 as a result of waste handling and transport.	Major	Possible	12 High	Refer Chapter 9	Effective	7	5 Medium
Air Quality - Odour	Odour from operation activities affecting surrounding landowners.	Major	Possible	12 High	Refer Chapter 11	Effective	7	5 Medium
Air Quality - Dust	Dust during construction and operation affecting amenity of the surrounding area	Moderate	Possible	9 Medium	Refer Chapter 11	Effective	7	2 Low
Air Quality – Greenhouse Gas	Greenhouse gas emissions.	Minor	Possible	6 Medium	Refer Chapter 11	Partly Effective	3	3 Low
Traffic and Transport	Increased traffic on the roads leading to the site. Ability of the site to safely operate within increased traffic flow.	Moderate	Likely	12 High	Refer Chapter 12	Effective	7	5 Medium
Noise	Construction, operational and transport noise from traffic and transfer	Minor	Possible	6 Medium	Refer Chapter 13	Partly Effective	3	3 Low



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Aspects	Potential impact example	Overall consequences	Overall Likelihood	Risk Rating	Proposed Mitigation Measure	Effectiveness	Effectiveness Factor	Residual Risk Rating
	trucks in and out of the site, machinery and plant upon sensitive receivers.							
Soil and Water	Clean and dirty water (sediment laden) and leachate leaving the site, and impacting downstream environments.	Major	Possible	12 Medium	Refer Chapter 10	Effective	7	5 Medium
Flood	Flooding impacts from further development of the site	Major	Unlikely	8 Medium	Refer Chapter 10	Partly Effective	3	5 Medium
Hazards and Risks	Breakdowns in operational procedures and/or storage and transport of materials may give rise to hazards and toxicity	Major	Unlikely	8 Medium	Refer Chapter 15	Effective	7	1 Low
Visual Amenity	Unacceptable visual impacts due to changes in the landscape and outlook from neighbouring properties as a result of any external changes to the site.	Moderate	Unlikely	6 Medium	Refer Chapter 14	Partly Effective	3	3 Low



Aspects	Potential impact example	Overall consequences	Overall Likelihood	Risk Rating	Proposed Mitigation Measure	Effectiveness	Effectiveness Factor	Residual Risk Rating
Socio-Economic	Impacts to equality and access to waste disposal facilities for the community as a result of the Proposal.	Moderate	Unlikely	6 Medium	Refer Chapter 16	Partly Effective	3	3 Low
Flora and Fauna	Impact to flora and fauna from construction footprint.	Insignificant	Very Unlikely	1 Low	Refer Chapter 17	Not effective		1 Low
Heritage	Impact to heritage from construction footprint.	Insignificant	Very Unlikely	1 Low	Refer Chapter 17	Not effective		1 Low

7.4 Environmental Risk Analysis Findings

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

- Waste
- Air Quality – Odour
- Traffic and Transport
- Soil and water
- Flood

The residual risk rating of 'medium' suggests that the residual risk can be managed through the application of environmental management measures. These are detailed within the relevant EIS (chapters 9-12), and in Chapter 18 (draft) Compilation of Mitigation Measures.

The remaining environmental risks considered for the Proposal and including those identified within the SEARs have been assessed as having a low level of residual risk once mitigation measures have been applied. Taking into account these environmental risks, the residual risk is of a nature that it can be managed through detailed design controls, conditions of consent, and normal working practices.

- Noise
- Air Quality - Dust and Greenhouse Gas
- Hazards and Risks
- Visual Amenity



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- Socio-Economic
- Flora and Fauna
- Heritage



CHAPTER 8 COMMUNITY AND STAKEHOLDER ENGAGEMENT

Chapter 8 addresses the key issue of stakeholder consultation associated with the Proposal.

<p><i>The Secretary's environmental assessment requirements:</i></p> <p><i>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</i></p> <p><i>In particular you must consult with:</i></p> <ul style="list-style-type: none">■ <i>Fairfield City Council;</i>■ <i>Environmental Protection Authority;</i>■ <i>Department of Primary Industries;</i>■ <i>Roads and Maritime Service;</i>■ <i>Transgrid; and</i>■ <i>The surrounding land owners and occupiers that may be affected by the proposal.</i> <p><i>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</i></p>	<p>Chapter 8</p>
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8.1 Existing Community Consultation

SUEZ operates a 24 hour 7 day a week telephone hotline line for SUEZ to receive feedback on environmental matters with the recycling and waste management facilities. The hotline has been set up for the public to communicate matters such as odours, noise, dust and mud tracking, amongst others to SUEZ. In addition feedback is able to be provided through SUEZ website.

SUEZ aims to interact with community representatives in a consultative forum through which members of the community can keep up-to-date on the operations of its waste management and organic processing facilities and provide input on a wide range of resource recovery, sustainability and corporate citizenship topics. Community consultation for the Wetherill Park Waste Resource Recovery Facility is undertaken on an as needed basis, rather than through regular reference group meetings. This approach is commensurate with the scale of the operation and the industrial setting.

8.2 Proposal Consultation

Consultation Strategy

A consultation strategy was developed for the Proposal. The purpose of the consultation strategy was to identify and document roles and responsibilities, the approach to consultation and identify key stakeholders. SUEZ commenced implementation of the consultation strategy in October 2015.

SUEZ's approach to consultation regarding the Proposal has been:

- Identify key community stakeholders, including community groups and landowners;
- Early consultation with stakeholders; and
- Consultation in a clear and transparent manner.

The overall objectives of the consultation associated with the Proposal have been to ensure adequate and appropriate stakeholder consultation. This includes:



- Enabling community awareness through informing stakeholders about the Proposal and the assessment process of the Proposal;
- Providing opportunity for stakeholder input;
- Providing accurate and timely information concerning the Proposal;
- Informing stakeholders about the key features, related issues and benefits of the Proposal;
- Identifying and addressing stakeholder issues during the preparation of the EIS;
- Ensuring all stakeholders have had an opportunity to have input in the EIS process for the Proposal.

Stakeholder Identification

Identification of stakeholders included consideration of individuals or groups who potentially could be impacted by, or have an interest in the Proposal. These stakeholders include:

- Nearby property owners, businesses and leasees;
- Fairfield City Council;
- The Environmental Protection Authority,
- Department of Primary Industries;
- Roads and Maritime Service; and
- Transgrid.

Stakeholder Engagement Activities

Regulatory stakeholders and government agencies have been consulted with regard to the Proposal. This includes all stakeholders identified within the SEARs for the Proposal and relevant environmental officers of Council on specific issues (for example traffic, waste management, flooding and planning officers).

Regulatory stakeholder consultation has taken the form of phone and email contact in addition to specific meetings to discuss the Proposal with relevant government agencies as identified within the SEARs and identified government regulatory agency comments on the SEARs. Specific regulatory consultation identified within the SEARs has included:

- Fairfield City Council – meeting on 28 October 2015 at the Council chambers;
- The Environmental Protection Authority – meeting on 03 November 2015 at the EPA offices, Sydney;
- Department of Primary Industries – email on 16 November 2015 and follow up phone call on 20 November 2015;
- Roads and Maritime Service – email on 17 November 2015 and follow up phone call and email on 26 November 2015; and
- Transgrid – email on 17 November 2015, as well as follow up phone calls and emails. Design drawings were provided to TransGrid for review on 15 January 2016. A response from Transgrid was provided on 23 February 2016.

Supplementary consultation with regulators has also been undertaken by the authors of technical studies for the EIS for the Proposal and are referred to in their respective technical chapters of this EIS.

Consultation with neighbouring properties included a letter drop off to adjacent industrial properties in November and December 2015, as well as through asking Council to pass on the letter to property owners. This letter is provided in Appendix H. The letter includes a feedback form and contact details to discuss the Proposal further with SUEZ.



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The following properties were contacted as part of this process.

Table 8.1: Properties

Property	Business	Nature of Contact
12 Davis Road	Jennings PH Heavy Machinery Glass Pty Ltd (02) 9725 4774	Delivered to mailbox
7/14 Davis Road	Smash Repair & Detailing 0432 609 163	Delivered to mailbox
10/14 Davis Road	Café on Davis 97566559	Delivered to mailbox
15 Davis Road	Austasia Packaging	Delivered to mailbox
16 Davis Road	Flamestop	Spoke with them about proposal and hand delivered letter to staff
17 Davis Road	Select-O-Pedic	Spoke with them about proposal and hand delivered letter to staff
18 Davis Rd	Universal Mobile Tower Hire (02) 8076 9160	Spoke with them about proposal and hand delivered letter to manager
23 Davis Road	Onesteel Recycling	Spoke with them about proposal and hand delivered letter to manager
21-22 Davis Road	Albright & Wilson Australia	Spoke with them about proposal and hand delivered letter to staff

Responses were provided by Albright & Wilson (via phone call) as well as Universal Mobile Tower Hire (via feedback form). The following meetings were held with the neighbours to explain the proposal:

- Meeting with Albright & Wilson at 21-22 Davis Road on 21 January 2016
- Meeting with Universal Mobile Tower Hire at 20 Davis Road (at the Wetherill Park RRF) on 8 February 2016

8.3 Identified Stakeholder Issues

To date there has been a general acceptance of the Proposal by stakeholders. It has been widely acknowledged that the Proposal is acceptable due to its strategic location and the alternatives of customers having to drop off waste at locations at greater distances from the Site. Consolidated responses from stakeholders are provided in Table 8.2.

Table 8.2: Summary of Stakeholder Responses on the Project

Issue	Comment
Regulatory Agency Comments	
Air Quality and Odour	■ EPA concern with odour emissions from the site
Noise	■ EPA concern about impact of noise on receptors
Water and Leachate Management	<ul style="list-style-type: none"> ■ DPI's main areas of concern are changes to water quality and how leachate is managed ■ EPA concern about how leachate is being managed with waste located outside the pit at times, erosion and sediment controls during construction, general impact of the project on surface water resources
Flooding	■ Council pointing out the potential for the site to be partially impacted by overland flooding



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Issue	Comment
Waste Management	<ul style="list-style-type: none">■ EPA concern about handling of waste and pit capacity and waste being stored outside the pit■ Council concern about capacity increase of facility and how this might be managed on-site
Soils	<ul style="list-style-type: none">■ EPA concern about the risk of contamination of soil by the activities carried out
Traffic	<ul style="list-style-type: none">■ Council concerns about traffic impact of Proposal on surrounding roads
Easements	<ul style="list-style-type: none">■ SUEZ received from Transgrid development guidelines TransGrid Easement Guidelines for Third Party Development (V10) and has taken into account these requirements and Transgrid comments on the design when developing the design. This has included reducing the number of truck parking spaces.

Neighbouring Properties Comments

18 Davis Rd - Universal Mobile Tower Hire	<ul style="list-style-type: none">■ Concerns raised about air quality, odour, general amenity, WH&S, asbestos management and property value <p>The concerns were addressed at the meeting dated 8 February 2016 including SUEZ confirming no expansion of transfer station footprint as well as nature of odour</p>
21-22 Davis Road - Albright & Wilson (Australia) Limited	<ul style="list-style-type: none">■ Traffic, in particular truck parking■ The nature of works – requested clarification on what is being proposed■ Asbestos management <p>The concerns were addressed at the meeting dated 21 January 2016 with SUEZ confirming there will be no expansion of transfer station footprint as well as no intention to increase intake of asbestos</p>

8.4 Future and Ongoing Consultation

SUEZ is committed to providing the opportunity for community and stakeholder input during assessment of the Proposal and, if approved, during the construction and operation phases of the Project.

It is understood that the DPE will provide the following consultation activities during exhibition of the EIS:

- The EIS will be advertised and placed on public exhibition in accordance with the assessment process of Part 4 (State Significant Development) of the EP&A Act.
- In addition SUEZ will place the EIS on their website,
- The dates and venues of the public exhibition will be advertised in local media, and will be made available on the Department of Planning and Environment website (<http://majorprojects.planning.nsw.gov.au/>).
- During the exhibition period, all stakeholders will be invited to make written submissions to the Department of Planning and Environment in response to the EIS for the Proposal.



- In addition the communication channels identified for the Proposal within this chapter will remain available throughout the exhibition period.

During the assessment and post determination of the Proposal, stakeholder engagement activities would continue to be developed and SUEZ would facilitate the engagement process. These activities may include:

- Telephone phone line to communicate issues
- Complaints management process
- Updates of the SUEZ website
- Clear signage at construction-sites during construction
- Ongoing review and refinement of construction and operation impact mitigation measures in accordance with conditions of approval

CHAPTER 9 WASTE MANAGEMENT

Chapter 9 addresses the key issue of waste management associated with the Proposal.

<p>The Secretary's environmental assessment requirements:</p> <ul style="list-style-type: none"> ■ <i>A detailed description of the likely waste streams that would be handled, stored and processed at the facility including maximum volumes of each type of waste to be stored on-site at any one time and the maximum throughput of each waste type;</i> ■ <i>The likely waste processing operations, including likely technology and resource outputs and the quality control measures that would be implemented;</i> ■ <i>Details of how waste would be stored and handled on-site and transported to and from the site including details of how the receipt of non conforming waste would be dealt with;</i> ■ <i>Details of the proposed location and size of stockpiles of unprocessed and processed recycled waste on-site;</i> 	<p>Chapter 9</p>
<ul style="list-style-type: none"> ■ <i>The measures that would be implemented to ensure that the development of consistent with the aims, objectives and guidance in the NSW Waste Avoidance and Resource Recovery Strategy 2014-2021</i> 	<p>Chapter 2 Chapter 3</p>

9.1 Existing Waste Management

Waste accepted at the Wetherill Park Resource Recovery Facility includes non-putrescible and putrescible waste that originates from domestic drop off and commercial waste delivery. As described in Chapter 5, the Wetherill Park Resource Recovery Facility has received various development consents to operate and is licenced by the NSW EPA under EPL 4548 to accept, store and process certain categories of waste.

9.2 Potential Impacts

Construction Impacts

The construction phase of the Proposal would include the construction of the new workshop, hardstand area development of the small vehicle drop off area. This would generate waste in the form of packaging and excess materials. Waste streams associated with the construction phase of the Proposal would include:

- Cleared vegetation;
- Concrete, including cured concrete and washwater;
- Formwork, including used formwork and offcuts;
- Steel and steel reinforcement offcuts;
- Chemicals, including adhesives, resins, paints and curing agents;
- Packaging, including cardboard, plastic and drums;
- Putrescible waste from lunchrooms; and
- Plant and equipment maintenance waste (e.g. oily rags, oil filters, tyres etc.).

A Waste Management Plan would be developed as part of the CEMP.



Operational Impacts

The Proposal increases putrescible waste from 10,000 tonnes per annum to 140,000 tonnes per annum. Non-putrescible waste volumes would remain the same at 90,000 tonnes per annum. This would increase the maximum total waste accepted at the transfer station from 100,000 tpa to 230,000 tpa.

SUEZ does not propose to modify waste types currently received at the Site.

Waste operations will remain largely the same, with the exception of the creation of a dedicated small vehicle drop off area and separate uploading areas for commercial loads of putrescible and non-putrescible waste.

The small vehicle drop off allows domestic customers to source separate their waste into marked bins. This process will result in improved resource recovery, as this source separation process is more efficient and effective than sort recyclables from the waste unloaded onto the transfer station floor, as per the current operation. This also improves safety, traffic flow and operational efficiency.

Waste operations and incoming waste types and volumes are summarised in Table 9.1.



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Table 9.1: Proposed waste operations and incoming waste types

Area	Waste type	Waste Classification	Comments	Quantity
Transfer station building	<p>Municipal waste, being waste consisting of:</p> <ul style="list-style-type: none"> Household domestic waste that is set aside for kerb side collection, or delivered by the householder directly to the waste facility Other types of domestic waste (e.g. domestic cleanup) Local council generated waste (e.g. waste from street sweeping, litter bins, and parks) 	General solid waste (putrescible)	<p>Unloaded to transfer station floor and disposed within surge pit for transfer.</p> <p>Stored separately to all other types of waste (as per current EPL)</p>	<p>140,000 t per annum</p> <p>Removed within 24 hours of it being received at the premises as per current EPL.</p>
Transfer station building	<p>Commercial and Industrial Waste, being waste consisting of:</p> <ul style="list-style-type: none"> Office and packaging waste (e.g. paper, plastics, glass, metal, and timber) that is not mixed with any other type of waste. Non-chemical waste generated from manufacturing and services (including metal, timber, paper, ceramics, plastics, thermosets, and composites). Building and demolition waste 	General solid waste (non-putrescible)	<p>Unloaded to transfer station floor (dry area) and disposed within surge pit for transfer.</p>	<p>90,000 tpa</p>



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Area	Waste type	Waste Classification	Comments	Quantity
Small vehicle drop off	Small household quantities of : <ul style="list-style-type: none"> Waste oil, mineral oil and paints Metals Paper and cardboard Gas bottles Batteries Mattresses Tyres E-waste Plastic Construction and Demolition i.e. inert bricks, concrete 	General solid waste (non-putrescible) Special waste Hazardous waste	Source separated waste into marked shipping containers. The recyclables and recoverable are collected by contractors.	Small household quantities (included in the volume above). Tyres: maximum 5 per household. Storage and recycling of cardboard and paper max 1500 tonnes per month (as per DA 816-2005)
Asbestos Storage	Asbestos	Special waste	Stored in two purpose built enclosed bins	Maximum of 10 m ³ per week (as per DA 1557/06)



As per existing operations, any material that does not fall into these categories is not accepted, as described in Chapter 5.

Operational Waste Generation

Site waste would continue to be generated, through offices, lunch rooms and maintenance activities. These waste streams could potentially include:

- General solid waste (putrescible) – mixed residual waste.
- General solid waste (non-putrescible) – recyclable materials (such as paper, plastic containers, glass containers and aluminium cans), cardboard and plastic packaging, and maintenance items consumables.

Containers for the disposal of site generated waste would be provided, including bins for the segregation of recyclables and general waste.

Waste Processing

Surge Pit

An assessment of the capacity of the operation to process up to 140,000 tpa of putrescible waste was reviewed against the existing capacity of the surge pit. Calculations are as follows and demonstrate the capacity of the infrastructure to process the increase tonnage of waste.

Annual waste tonnage: 230,000 tpa (90,000 tpa non putrescible and 140,000 tpa putrescible).

Assumed density of waste in surge pit: 0.7 t/m³

Volume of Waste per day = Approx. 900 m³ (325 m³ non putrescible, 575 m³ putrescible)

Volume of surge pit (excluding access ramp): 585 m³

The surge pit will be cleared out twice a day.

Truck Loading Capacity

The traffic assessment (refer Chapter 12) anticipates 35 vehicle movements in per peak hour. It is noted that a portion of these movements would be staff and small vehicles movements and a portion would be pickup trucks to collect recyclables and recoverables.

During peak hour, if it is conservatively assumed that half of the truck movements on-site in peak hour are for pick up this results in trucks having on average 4 minutes to load.

Commercial Unloading Capacity

As per above, using data from the Traffic Assessment (refer Chapter 12) , if it is conservatively assumed that half of the vehicle movements onto the Site are commercial trucks unloading each truck would have on average 4 minutes to unload.

Source separated recyclables

The source separated recyclables from the small vehicle drop off area including metal, polystyrene, synthetic fibres, waste mineral oils, gas bottles, batteries, waste ink/dye, mattresses, tyres, e-waste, bricks and concrete will be transported off-site to recyclers or specialist manufacturers for reprocessing into new products.

Asbestos management

Asbestos management will remain the same as for the existing operation. Asbestos disposal will be booked in with the Site. Site personnel will collect the asbestos at the weighbridge and the asbestos will continue to be disposed of and stored in two purpose built enclosed bins. As per Development Consent DA 1557/06, a maximum of 10 m³ per week of asbestos will be accepted and transported and disposed directly to landfills



licensed to accept asbestos waste. An asbestos management plan has been prepared and staff are trained in asbestos management.

Transport of Waste To and From Site

All waste transport vehicles enter the Site via the incoming weighbridge. The weighbridge operator is responsible for recording all details of the waste accepted onto the Site and directing waste streams to the correct section of the Site for processing. The weighbridge operator would record the following information:

- The origin, type and weight of waste delivered.
- The date the delivery was made.
- The registration number of the vehicle making the delivery.
- The particulars of where on the site the waste would be placed.

Waste transport vehicles exiting the Site are weighed on the outgoing weighbridge to confirm the weight of waste deposited and the following information is recorded:

- The amount and type of waste and other material contained in the load.
- The date the load was transported from the facility.
- The registration number of the vehicle transporting the load.
- The address of the place to which any load of waste was transported.

Quality Control and Non-conforming Waste Management

Any material that does not fall into the categories described above is not accepted at the Site. This includes, but is not limited to, wastes classified in Schedule 1, Parts 1 and 3 of the POEO Act, as hazardous or industrial waste. Specific waste types not able to be accepted at the Wetherill Park Resource Recovery Facility include;

- Tree trunks and roots
- Large and shredded tyres
- Expanded plastics e.g. polystyrene where the volume in the load is >50%
- Security wastes e.g. expired food stock

The following provisions are in place at the Wetherill Park Resource Recovery Facility to prevent the disposal of unacceptable wastes. Detailed procedures will be presented in the updated OEMP.

- Signs are presented at the entrance to Wetherill Park Resource Recovery Facility, which clearly indicate the types of wastes that are accepted and those that are not accepted.
- All incoming vehicles enter via the weighbridge/gatehouse, where the vehicle registration number is entered.
- Customer declares type and source of waste.
- If the Weighbridge Operator is suspicious about the waste load, the load is inspected.
- If waste is from an industrial source an application for disposal is to be submitted by Customer and assessed.
- Screen and check incoming waste at the weighbridge where load is not covered. An overhead CCTV is installed to enable visual inspection of loads by the Weighbridge Operator.
- The plant operators in the transfer station building would inspect the waste as it is discharged from the vehicle, to check for non-conforming waste and easily extractable, bulk recyclable waste.



- When loads of excluded wastes are identified at the weighbridge including unpackaged asbestos, the weighbridge operator informs the customer that the waste is not acceptable and the customer is refused entry. The customer is informed of the correct waste disposal procedure or location.
- When loads or partial loads of excluded waste are identified at the waste transfer station, the customer is asked to remove the excluded waste from the site and is informed of the correct waste disposal procedure or location.
- When loads or partial loads of excluded waste are identified at tipping area, the customer is asked to remove the excluded waste from the site and is informed of the correct waste disposal procedure or location. Where no customer can be identified, SUEZ removes the excluded waste and the waste is transferred to an approved disposal or treatment location.
- Asbestos loads will be wet down and packaged by SUEZ, where no customer can be identified.
- Non-conforming loads are documented.

9.3 Mitigation Measures

This Chapter has assessed the potential impacts associated with the management of waste at the Proposal site and has identified the management processes that would be implemented on the Site to mitigate those impacts. Through the implementation of these mitigation measures and strategies, management of waste at the Proposal site would be consistent with the aims, objectives and guidelines in the NSW *Waste Avoidance and Resource Recovery Strategy 2014-2021* and the EPA's *Waste Classification Guidelines* as identified within Chapters 2 and 3 of the EIS.

Construction Mitigation Measures

Measures to mitigate the effect of the construction waste streams would be incorporated into the Proposal's CEMP, and would include the following information:

- Procedures to manage construction waste streams, including characterisation, handling, storage, classification and tracking.
- Management of hazardous waste streams, including contaminated soil and contaminated groundwater.
- Mitigation measures for avoidance and minimisation of waste materials.
- Procedures and targets for reuse and recycling of waste materials.

Operational Mitigation Measures

In order to ensure that the Proposal's waste management operations would have minimal impact on the surrounding environment the updated OEMP and the design of the facility would act to mitigate potential impacts.

Waste management processes incorporated into the updated OEMP would include:

- Characterisation of waste streams accepted at the facility.
- Procedures for weighbridge activities – including screening of incoming loads, weighing of incoming and outgoing vehicles, weighbridge data recording and archiving, and weighbridge inspection schedule.
- Tipping procedures for each waste stream – including screening and scavenging.
- Procedures for management of non-conforming loads and materials.
- Procedures for ensuring the Site remains clean and tidy.
- Procedures for loading materials.
- Operational contingencies – should any Site activity undergo a temporary shutdown.



- Roles and responsibilities for compliance.
- Procedures for inspection, monitoring, review and auditing.

Design features of the facility would include:

- Provision of recycling bins and general waste bins for use by staff and vehicle drivers.
- Separate small vehicle drop off area so the transfer station building is only for commercial vehicles.
- Additional exit from the transfer station building for better traffic movement from the transfer station.



CHAPTER 10 SOIL AND WATER

Chapter 10 provides an assessment of the potential key issues associated with soil and water for the Proposal.

<p><i>The Secretary's Environmental Assessment requirements</i></p> <ul style="list-style-type: none">■ <i>Identification of water and soil resources, drainage lines, watercourses and riparian lands;</i>■ <i>The proposed erosion and sediment controls during construction;</i>■ <i>A detailed site water balance, including identification of water requirements for the life of the project, measures that would be implemented to ensure an adequate and secure water supply is available for the proposal and a detailed description of the measures to minimise the water use at the site;</i>■ <i>Potential impacts on watercourses and groundwater;</i>■ <i>The proposed stormwater/wastewater/leachate management systems including the capacity of on-site detention systems, and measures to treat, reuse or dispose of water; and</i>■ <i>Consideration of any potential salinity, soil contamination, flooding and acid sulfate soil impacts of the project.</i>	<p>Chapter 6</p> <p>Chapter 10</p>
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10.1 Existing Environment and Infrastructure

The existing environment is discussed in Chapter 6 including soil and geology, Potential Acid Sulphate Soils, Soil (PASS), contamination salinity, topography, water courses, riparian lands, flooding and groundwater.

The existing infrastructure on-site, including the water infrastructure is discussed in Chapter 5.

10.2 Potential Soil Impacts

The Proposal is primarily related to acceptance of an increased volume of putrescible waste, improvements within the existing transfer station facility and modifications to traffic flow to separate domestic drop-off from commercial waste streams. The footprint of the main transfer building will remain unchanged. Proposed construction works include the addition of parking areas, handstand areas and access ramps and a workshop.

Acid Sulphate Soils

The area is classified as having extremely low likelihood of the presence of acid sulphate soils with a very low confidence (ASRIS 2015). No acid sulphate soils risk is noted in the Fairfield LEP (2013).

Development of the Proposal would involve minor excavation and regrading of the site; hence there is limited potential for disturbance of large quantities of PASS. Impacts from PASS, if present at the Site, include oxidation of PASS leading to generation of sulphuric acid leaching into surface water.

Prior to construction commencing, a CEMP would be prepared. In the event of discovery of PASS, procedures would be implemented to mitigate potential impacts on the environment. These procedures would be documented in the CEMP and may include:

- Disposed of PASS at an appropriately a licensed landfill. PASS disposed to landfill must be treated prior to disposal in accordance with procedures outlined in the *Acid Sulphate Soil Manual, Acid Sulfate Soil Management Advisory Committee, 1998*.



- If storage of the PASS is required, excavated material shall be temporarily stockpiled in a pond within a bunded area to collect drainage and a thin layer of lime added to the base and cover of the stockpile.
- All procedures shall ensure the PASS does not oxidise.

Soil Contamination

The existing potential for contamination associated with the Site has been assessed (refer Chapter 6). In the event of discovery of previously unidentified area(s) of potentially contaminated material, procedures would be implemented to mitigate potential impacts on the environment. These procedures would be documented in the CEMP and may include:

- If required, OEH would be promptly notified of any suspected potentially contaminated ground that is exposed during construction activities;
- Advice would be immediately sought from a suitably qualified and experienced contaminated site consultant;
- Any suspected contaminated materials excavated during site works would be stockpiled on a sealed surface or on plastic sheeting. The stockpile would also be covered to prevent wind or rain removing any of the material. The stockpile would not be placed in the vicinity of sensitive environmental receivers such as vegetated areas. A spoon drain would be excavated on the downgradient side of the stockpile and any run-off would be appropriately treated prior to release;
- Stockpiled material would be sampled for testing. Reuse or disposal options would be based on the results of laboratory analysis in accordance with relevant legislation;
- All confirmed contaminated material would be excavated and disposed of off-site in a suitably licensed facility in accordance with relevant OEH regulations; and
- If necessary, a Remedial Action Plan would be prepared and implemented in accordance with OEH.

During construction small volumes of fuels and chemicals may be stored on the Site for use by machinery and equipment. There is potential for these substances to spill on to the ground and spread to the surrounding environment during refuelling activities, transport and delivery if not managed appropriately.

The CEMP would include procedures for the prevention and management of spills, these may include:

- Dangerous goods would continue to be stored in accordance with guidelines;
- The site refuelling procedure would continue to be implemented for all refuelling activities undertaken. Any fuel, lubricant, or hydraulic fluid spillages would be collected using absorbent material and the contaminated material disposed of to a licensed waste facility;
- Spills would be managed in accordance with the existing Incident Response Plan. The plan specifies procedure to be followed in the event of a spill, including the notification requirements and use of absorbent material to contain the spill. A spill kit would be provided on-site at all times;
- All operators are trained in waste handling and emergency and spill response procedures; and
- Vehicle spill (i.e. oil, petrol, hydraulic fluid) mitigation includes adherence to a preventative maintenance and inspection programme.

During operation of the Proposal, oils, fuel, lubricants and other chemical substances would be required for vehicles, plant and machinery. Accidental spills or leaks within the Site have the potential to result in contaminants being transported into the surrounding environment. This risk is highest in the maintenance area and the transfer facility building, where the majority of chemicals and wastes would be stored, and associated with the operation of the diesel storage tank. Accidental release of leachate also poses a potential source of contamination.



The OEMP would be updated as necessary and would include procedures for spill response, similar to those detailed above.

Erosion

Construction of the access ramps, hardstand areas, truck and trailer car park areas and workshop foundations will involve removal of vegetation and some minor regrading of the ground surface, this represents a potential for erosion of soils.

Erosion is most likely to occur during major rainfall events and heavy wind. There is the potential for erosion of soils during construction and operation, particularly upon removal of top soil and during the excavation works. Any erosion would potentially be accentuated via the movement of construction machinery, vehicles and personnel and would also be further exacerbated by rain. There is also the potential for aeolian (wind) erosion to occur.

The *Stormwater Drainage Policy – Policy Number 0-045* (Fairfield City Council, 2002), specifies that all development sites require provision to be made on the site. For works the size of the Proposal, the Proposal needs to comply with the requirements document in the NSW Department of Housing's *Managing Urban Stormwater – Soils and Construction* (Landcom, 2014).

The CEMP would contain a range of appropriate erosion and sediment control measures that would be required for implementation, monitoring and maintenance during the construction of the Proposal. These may include:

- Erection of silt fences or straw bales at strategic locations;
- Construction of temporary sediment retention pond, (as required);
- Regular inspection and maintenance of sediment and erosion control structures;
- Protecting and retaining vegetation and surface cover where possible;
- Using designated access roads and paths where possible;
- Vehicular paths and access shall be controlled so as to prevent tracking of sediment onto adjoining roadways;
- Removing soil adhering to the wheels and undercarriage of trucks (e.g. by wheel wash) prior to departure from the Site;
- Stabilise all disturbed areas as soon as practicable;
- Release Dirty Stormwater, captured and stored by sediment and erosion control measures or site works, after treatment and testing to confirm compliance with relevant criteria;
- Stormwater courses and adjacent areas will be left undisturbed;
- All loads entering or leaving the site will be covered;
- Soils will be disturbed when slightly moist to minimise the potential for dust production; and
- Weather forecasts will be monitored to identify hot, windy and/or dry conditions when dust rise might be significant.

Salinity

The NSW DIPNR *Salinity Potential in Western Sydney* (2002) does not indicate a soil salinity hazard at the Site, with the Site mapped as having moderate salinity potential.

10.3 Potential Water Impacts

As described above, the Proposal is primarily related to acceptance of an increased volume of putrescible waste, improvements within the existing transfer station facility and modifications to traffic flow to separate



domestic drop-off from commercial waste streams. The footprint of the main transfer building will remain unchanged. Proposed construction works include the addition of parking areas, handstand areas and access ramps and a workshop.

Groundwater

Construction of the Proposal will involve minor excavation for preparation of hardstand foundations and workshop footings. This excavation will not encounter groundwater.

Accidental spills or leaks within the Site have the potential to result in contaminants being transported into the surrounding environment. As described above both the CEMP and updated OEMP would have procedures for spill management.

Flood

To adhere to the requirements of the DIPNR (2005) *NSW Floodplain Development Manual*, there is a need to limit the increase in flood levels on adjoining properties to less than 3mm. An increase in flooding typically occurs when established drainage lines are blocked and/or there is a reduction of flood storage in the floodplain caused by earthworks.

The Proposal does not block any existing drainage lines. The final earthworks plan will consider floodplain storage to balance the cut to fill ratio so there is no net increase in fill. If this cannot be achieved within the planned works, additional compensatory storage will be provided within the floodplain.

Surface Water Drainage

The existing stormwater infrastructure will be used where possible to convey water off-site at Davis Road. As identified within the SEARs, any new works as a result of the Proposal shall not increase the peak flow off the Site and/or reduce the water quality of the surface water. This can be achieved through the capacity of the existing system that in accordance with the original development consent (483A/891989) for the Site required a stormwater system designed to convey a 1 in 5 year ARI storm. This is supported by Fairfield City Council Stormwater Drainage Policy, which indicated minor systems need to be designed to convey the 1 in 5 year storm with overflow capacity in the major system.

For the purpose of assessing potential impacts, the Proposal is separated into three drainage catchments:

- The new hardstand area;
- The truck and trailer parking area; and
- The new waste drop off area.

The new small vehicle drop off area would result in no net increase in impervious area, resulting in no net increase peak flow. Additionally all of the existing stormwater infrastructure including a roof and guttering over the small vehicle drop off area will be maintained. Consequently no additional design considerations are required for this area.

Therefore, the following section will assess the potential impact of the new hardstand area pavement and new truck and trailer parking area only.

Peak Flows

The new hardstand area and new truck and trailer parking area will result in an increase in impervious area, change in the use of these areas and introduce potential pollutants. The rationale method calculation has been completed to estimate the impact of the increased impervious area. The results of this analysis are presented below in Table 10.1 for the 1 in 5 year ARI. In general three land uses were identified; impervious, grass and the bare soil of the existing timber storage. For conservatism, a time of concentration of 5 minutes



was assumed. The final time of concentration will be calculated in detailed design. The rainfall intensity was extracted from the Bureau of Meteorology's online IFD system³ for Wetherill Park.

Table 10.1: Rationale Method Calculations

Catchment ID		Developed Case	Base Case
ARI (years)		5	5
Catchment Area			
Impervious Catchment Area		0.39	
Grassed Catchment Area		0.19	0.39
Bare Soil Catchment Area		0	0.19
A, catchment area (ha)		0.58	0.58
Runoff Coefficient			
$C = F_y * C_{10}$			
F _y , Frequency factor		0.95	0.95
C ₁₀ , runoff coefficient - Impervious		1.00	1.00
C ₁₀ , runoff coefficient - Grass		0.70	0.70
C ₁₀ , runoff coefficient - Bare Soil		0.90	0.90
Lumped C ₁₀ , runoff coefficient		0.9	0.75
C _y , calc'd runoff coefficient dependent upon ARI		0.86	0.71
Time of Concentration			
t _c , time of concentration, (min)		5.0	5.0
Rainfall Intensity			
I, rainfall intensity for duration equal to t _c , (mm/hr)		126	126
Rational Method: $Q = 1/360 * C I A$			
Q, calc'd peak discharge (m ³ /s)		0.17	0.14

The development results in an increase of peak flow 0.03 m³/s. It is considered this is within the capacity of the existing system. There will be additional attenuation achieved through the features of the stormwater system. These features will be design to achieve this attenuation during detailed design.

³ BOM 2016, Rainfall IFD System. Available Online: http://www.bom.gov.au/water/designRainfalls/revise-ifd/?coordinate_type=en&easting=305400&northing=6253900&zone=56&sdmin=true&sdhr=true&sdday=true&user_label=Wetherill+Park



Stormwater Conveyance

There will be a need to install additional stormwater conveyance systems under the new hardstand area. This system will tie into the existing pit 13 shown in Figure 10.2. The system will consist of two new stormwater pits and a 500 mm diameter stormwater pipe draining at a minimum grade of 0.5%.

The new pavement will be graded into all stormwater pits at a minimum grade of 0.5%. This will allow flow to be channelised on the pavement when the capacity of the minor system is exceeded. The pavement will fall from the hardstand area through the truck and trailer parking towards Davis Road. This conceptual design is sketched on Figure 10.1.

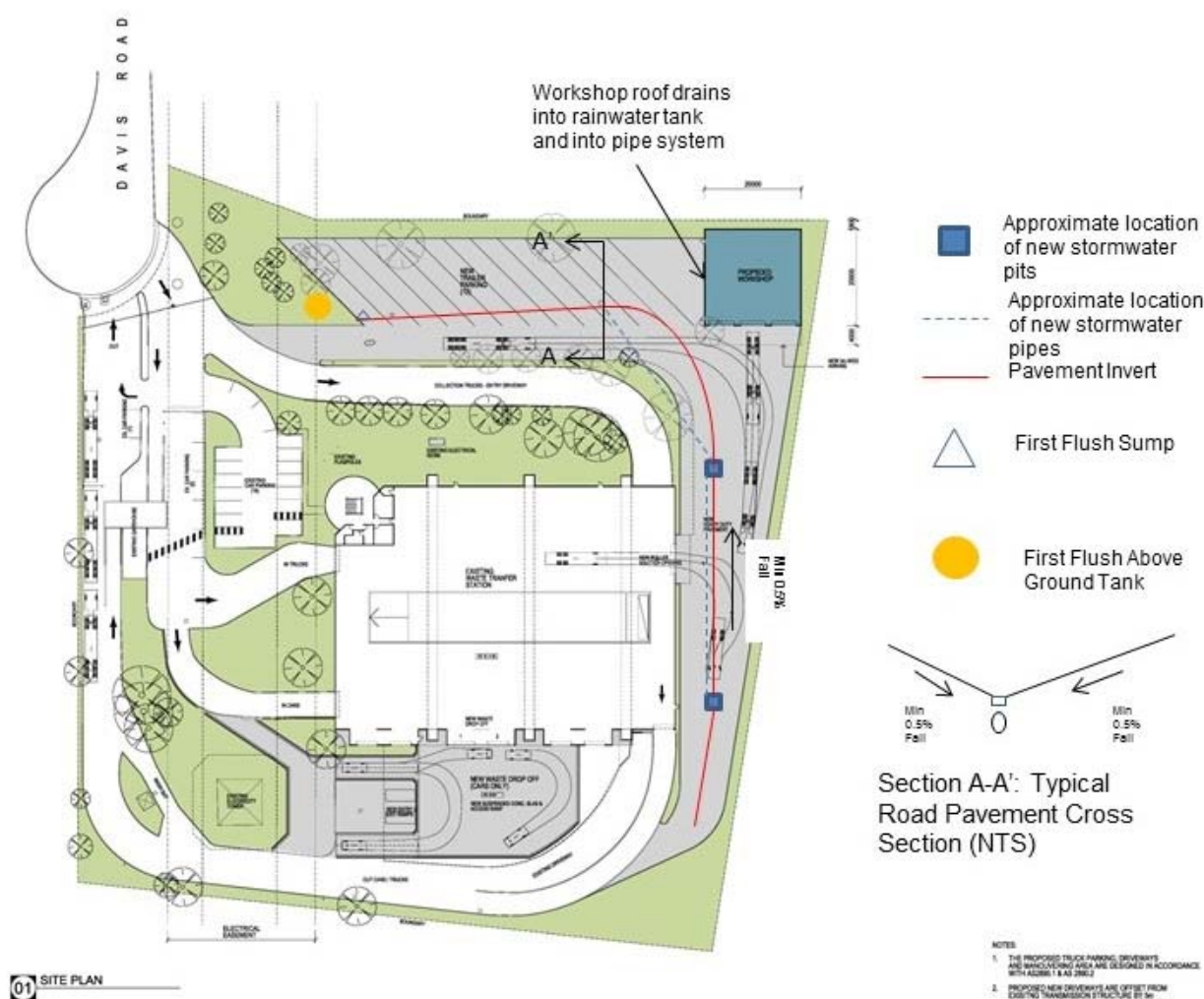


Figure 10.1: Proposed stormwater management system

Water Quality

As there is a risk of oil and waste material spillage on the new pavements, provision for first flush will be required. OEH provides guidance on first flush design in OEH (2015) *Stormwater First Flush Pollution*. This document specifies that for areas that contain pollutants such as oil and grease, capacity to contain the first 15mm of rainfall is required. For the Site this relates to a volume of approximately 60,000 L. Infrastructure will also be required to allow for bypass once the first flush system is achieved. At the Site a number of options exist to achieve this:



- Retrofitting of the construction sediment pond to contain the first flush. This system will need an upstream bypass that flows into the stormwater system.
- Installation of a sump and pump to an above ground storage tank. The sump will overflow into the existing stormwater system once the tank is full.
- Installation of an underground tank.

Based upon the capability to pump to the existing leachate treatment system (as required) on the Site, and ease of access for cleaning and maintenance, the use of an above ground tank is considered the best solution to address this issue.

Riparian Lands

The nearest riparian lands are associated with the unnamed channel / creek approximately 420m to the south of the Site and Prospect Creek, which is located approximately 1150m to the northeast of the Site (Fairfield LEP 2013).

The Proposal will not impact on riparian lands.

Water Usage

The Proposal is expected to result in a minor increase in water demand for the increased volume of waste. The current water demand is approximately 3,000 L per day. The increase in water usage is estimated to be about 10% and is associated with increase in staff numbers at the Site. This minor usage increase is considered to have a negligible impact on the Sydney Water supply. Water usage calculations and assumptions are provided in Appendix I

Wastewater

Currently, the site produces approximately 700 litres of wastewater per day. The Proposal is expected to increase the waste water volume due to additional waste, additional equipment and operational requirements related to the increase in waste and additional vehicle movements. It is estimated that the wastewater volume will increase by about 50%, equating to a total daily volume of approximately 1,030 L. Wastewater volume calculations and assumptions are provided in Appendix I.

A trade waste agreement is in place with Sydney Water to dispose of the wastewater. The average daily flow limit is 1 kL/day which coincides with the estimated future total wastewater volume. The average daily flow maximum and instantaneous maximum are 2 kL and 1.5 L/s which are significantly greater than the projected total wastewater volume.

10.4 Mitigation Measures

The potential soil and water impacts from the Proposal are minor. The potential for ASS, soil contamination and erosion impacts are low and typical of small scale earthworks. The potential for water impacts relates to spills and leaks and management of on-site stormwater. Impacts from wastewater relate to segregation of clean and 'dirty water' and increase in wastewater volume. Despite the low impacts the following mitigation and management measures are proposed to be adopted.

Mitigation and Management of Soil Impacts

The following mitigation and management measures, as indicated in Section 10.2.1, would be adopted for soil:

- In the event of discovery of PASS, procedures would be developed to mitigate potential impacts on the environment. These procedures would be documented in the CEMP.
- In the event of discovery of potential soil contamination, procedures would be developed to mitigate potential impacts on the environment. These procedures would be documented in the CEMP.



- The CEMP would include a range of appropriate erosion and sediment control measures that would be required for implementation, monitoring and maintenance during the construction of the Proposal.
- The updated OEMP outlines erosion and sediment control measures to be applied during operation of the Proposal.

Mitigation and Management of Water Impacts

A number of design features and management measures would be used to mitigate the potential for runoff from the Proposal to impact upon surface water. These include:

- Installation of a surface water management system in the new hardstand area.
- The existing OEMP and accompanying site procedures would be updated where required including update of the Surface Water Management Plan including a monitoring program

Mitigation Measures for Leachate and Wastewater impact

Mitigation measures proposed to reduce the impact of leachate include:

- Segregation of leachate from surface water and groundwater;
- Continue to monitor leachate discharge to sewer in accordance with Trade Waste Agreement.



CHAPTER 11 AIR QUALITY, GREENHOUSE GAS AND ODOUR

Chapter 11 addresses the key issue of air quality, dust, odour and greenhouse gas associated with the Proposal. This chapter provides a summary of the *Pacific Environment Limited Wetherill Park Resource Recovery Facility Upgrade – Odour Assessment, 2015* (Air Assessment) provided in Appendix J of the EIS to assess potential odour and dust impacts of the Proposal. The Air Assessment includes identifying methodology of assessment, existing environment, impact assessment (based on estimated emissions) and mitigation measures.

The Secretary's environmental assessment requirements:

- **A quantitative assessment of the potential air quality, dust and odour impacts of the project on surrounding landowners in accordance with relevant EPA guidelines;**
- **A greenhouse gas assessment; and**
- **Details of proposed mitigation, management and monitoring measures.**

Chapter 11

11.1 Existing Environment

Local Meteorology

Wind roses are presented in the Air Assessment, Appendix J and in Chapter 6 of the EIS. On an annual basis, the predominant direction is southwest of the Site. Seasonal wind roses show strong seasonal variations in predominant wind directions: south easterlies for summer and south westerlies for all other seasons.

Sensitive Receivers

Industrial properties are located to the east, north and north-east of the Site, whilst residential and other potentially sensitive receptors are located much further away (approximately 1.5 km) and are not considered in this assessment. As such the Air Assessment conservatively classifies nearby industrial properties as sensitive receptors as presented in **Table 11.1**. The identified receptor locations are shown in Figure 11.1.

Table 11.1: Sensitive Receptors

Sensitive Receptor ID	UTM Zone 56 Easting (m)	UTM Zone 56 Northing (m)
R1	305403	6254043
R2	305466	6253940
R3	305502	6253943
R4	305542	6253941
R5	305595	6253942
R6	305637	6253945
R7	305607	6254033



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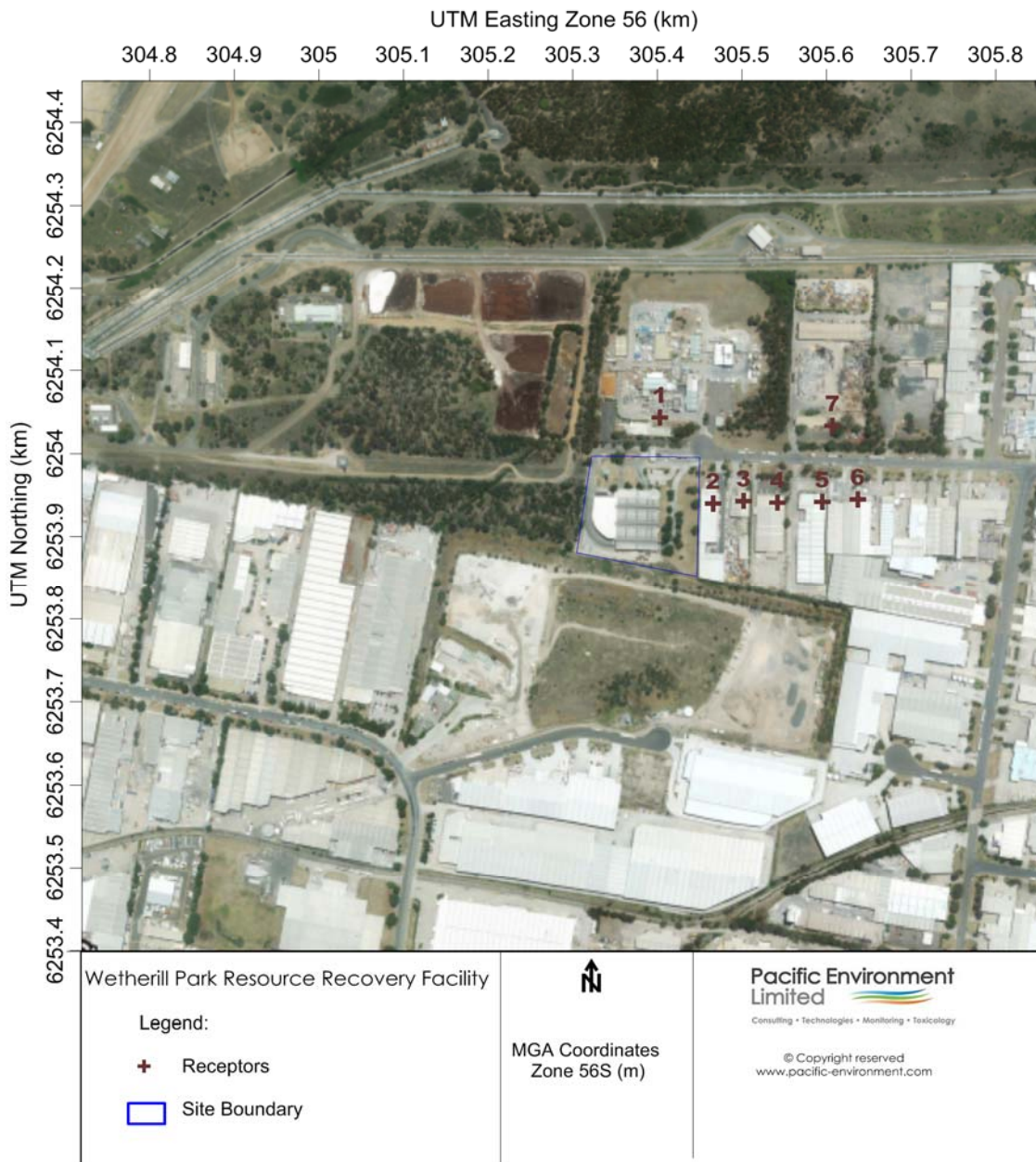


Figure 11.1: Location of the site and nearest sensitive receptors



11.2 Odour and Dust Impact Assessment

Assessment Methodology

Key potential air quality impacts associated with the Proposal include:

- Odour emissions from putrescible waste handled at the Wetherill Park Resource Recovery Facility.
- Dust emissions from handling of putrescible and non-putrescible waste within the transfer building.
- Dust emissions during construction of the Proposal.

Odour

Putrescible waste at the Site has the potential to generate odour emissions.

The assessment is based on the use of the computer-based dispersion model (CALPUFF) to predict off Site odour levels. To assess the effect that potential emissions could have on existing air quality, the dispersion model predictions have been compared to relevant regulatory air quality criteria.

The assessment follows a conventional approach using the procedures outlined in the NSW Environment Protection Authority's (EPA) document titled *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2005). Other documents considered are the *Assessment and management of odour from stationary sources in NSW* (EPA, 2006).

Based on the population density of the surrounding area, the impact assessment criterion of 2 OU for sensitive receptors (at the 99th percentile; EPA, 2005) has been applied for this assessment.

For the Proposal, the sources were modelled as volume sources as the emissions would come off the waste transfer building via doors and windows. A peak to mean ratio of 2.3 was used.

Dust

Activities associated with the construction of the Proposal involve minor earthworks and the establishment of a workshop and related infrastructure. Potential dust emissions may be generated during earthworks including loading / emplacing material, transport on-site, shaping operations and windblown dust generated from exposed areas and stockpiles. Exhaust emission from the operations of construction vehicles and plant would also generate particulate emissions. Due to the small scale nature of the works the potential impact of dust from the Proposal during construction is assessed as low, as dust is able to be managed through typical construction mitigation measures as outlined in Section 11.3.

The non-putrescible waste, which has some potential to generate dust, is unloaded and handled within the existing transfer building. Putrescible waste, which is assessed as having a low potential to generate dust, is also unloaded within the transfer building. Due to the unloading within the existing transfer building, the potential impact of dust from the Proposal during operation is assessed as low, and would be managed by the dust suppression system already located within the main transfer building and other mitigation measures as outlined in Section 11.3.

Dust generation is not anticipated to be a significant issue in terms of air quality for the above reasons; therefore a further assessment of dust is not considered as required.

Modelling Methodology

Odour

Surface weather data for CALMET was sourced from two Bureau of Meteorology weather stations. The Horsley Park weather station is approximately 4 km south west of the Site, and the Bankstown Airport station is 13 km south east. Surface data include wind speed, wind direction, temperature, relative humidity, sea-level pressure and cloud heights and cloud amounts. These data were obtained from Bureau of Meteorology as 1-minute data and they were processed into hourly averages. The missing data in hourly averages were then filled before being used by CALMET.



TAPM was modelled to provide upper air data for CALMET.

One recent year of meteorology, 2013, was modelled for this project to represent various seasonal and diurnal weather conditions experienced at the Proposal location. Based on climate statistics, this year had typical meteorology for the location.

Details on the model configuration and data inputs are provided in Appendix J.

Estimated Emissions

Odour

Two scenarios have been modelled in this assessment. These are:

- Existing – Current operations of the Wetherill Park Resource Recovery Facility
- Future – Proposed operations of the Wetherill Park Resource Recovery Facility

The odour emission sources identified are the areas within the pit and in the transfer station building for waste processing.

To estimate emissions, the exposed waste area of the pit was calculated by Golder/SUEZ as below:

- Annual total waste allowable waste tonnage:
 - Existing: 100 tpa total waste (10 tpa putrescible – 10%)
 - Future: 230 tpa total waste (140 tpa putrescible – 61%)
- Density of waste (mix of putrescible and non-putrescible, somewhat compacted in pit): This could possibly range from 0.7 – 1 t/m³ (EPA, 2015) but was conservatively assume 0.7 t/m³ for this assessment.
- Pit depth = 1.5m
- Maximum time waste resides on the Site = 1 day

Calculations of Existing scenario:

- Annual volume: $V = 100,000 \text{ tpa} / 0.7 \text{ t/m}^3 = 142,857 \text{ m}^3$
- Daily volume: $142,857 \text{ m}^3 / 365 = 391 \text{ m}^3$
- Assume half of the waste is transferred to waste trucks: Daily max volume in pit = 200 m³
- Area of waste in pit: $200 \text{ m}^3 / 1.5\text{m} = 130 \text{ m}^2$

Calculations of Future scenario:

- Annual volume: $V = 230,000 \text{ tpa} / 0.7 \text{ t/m}^3 = 328,571 \text{ m}^3$
- Daily volume: $328,571 \text{ m}^3 / 365 = 900 \text{ m}^3$
- Assume half of the waste is transferred to waste trucks: Daily max volume in pit = 450 m³
- Area of waste in pit: $450 \text{ m}^3 / 1.5\text{m} = 300 \text{ m}^2$

To estimate the emissions at the Wetherill Park Resource Recovery Facility, odour emission rates have been sourced from the recent odour sampling data at landfills and recycling facilities in NSW and neighbour states, sampled over fresh waste. These sources are considered comparable to the Proposal. These are summarised in Table 11.2.



Table 11.2: Summary of Odour Measurement Data from Fresh Mixed Waste Streams
(for specific odour emission rate, which is odour emission rate per square meter of exposed surface area). Measured Specific Odour Emission Rate (OU.m³/m²/s)

Location	Emission Rate	References	Note
Lucas Heights	1.56, and 2.54	Holmes Air Sciences* 2006	Two samples were taken, with an average of 2.05
Eastern Creek	1.91, 0.36 and 3.65	PAEHolmes* 2010	Three samples were taken, with an average of 1.97
Woodlawn	0.70	SLR 2012 (referencing URS 2010)	-
Spring Farm	0.325 and 0.424	Pacific Environment* 2014	Two samples, with the higher value reported
Whytes Gully	1.115	PAEHolmes* 2012	One sample
Nambour	2.6	Golder 2012 (referencing Katestone Environmental, 2007)	-

The estimated odour emission rates for this assessment are listed in **Table 11.3**. In this table, the exposed area for putrescible waste was calculated as the total waste area multiplied by the percentage of waste that is putrescible. The same method is used to calculate exposed area for non-putrescible waste.

Table 11.3: Estimated Odour Emission Rates Source

	Specific odour emission rate (ou.m ³ /m ² /s)	Exposed Area (m ²)	Total Emission (ou.m ³ /s)
Existing Wetherill Park Resource Recovery Facility			
Pit area for processing putrescible waste	3.65	130 X 0.1 = 13	47
Pit area for processing non-putrescible waste	0.36	130 X 0.9 = 117	42
Future Wetherill Park Resource Recovery Facility			
Pit area for processing putrescible waste	3.65	300 X 0.61 = 183	667
Pit area for processing non-putrescible waste	0.36	300 X 0.39 = 117	42

The existing Wetherill Park Resource Recovery Facility has approval to operate 24 hours a day, and 7 days a week. As such, constant emissions were assumed 24 hours a day, and 7 days a week for both existing and future scenarios.



Modelling results are presented for the existing and the proposed upgrade to the Wetherill Park Resource Recovery Facility. Ground level concentrations resulting from the odorous emission sources have been estimated around the facility.

The predicted results for the identified sensitive receptors for the existing and future scenarios are presented in **Table 11.4**.

Table 11.4: Dispersion Modelling Results at the Sensitive Receptors

Receptor ID	Existing operations	Future operations
R1	< 1	1
R2	< 1	2
R3	< 1	1
R4	< 1	1
R5	< 1	1
R6	< 1	< 1
R7	< 1	1



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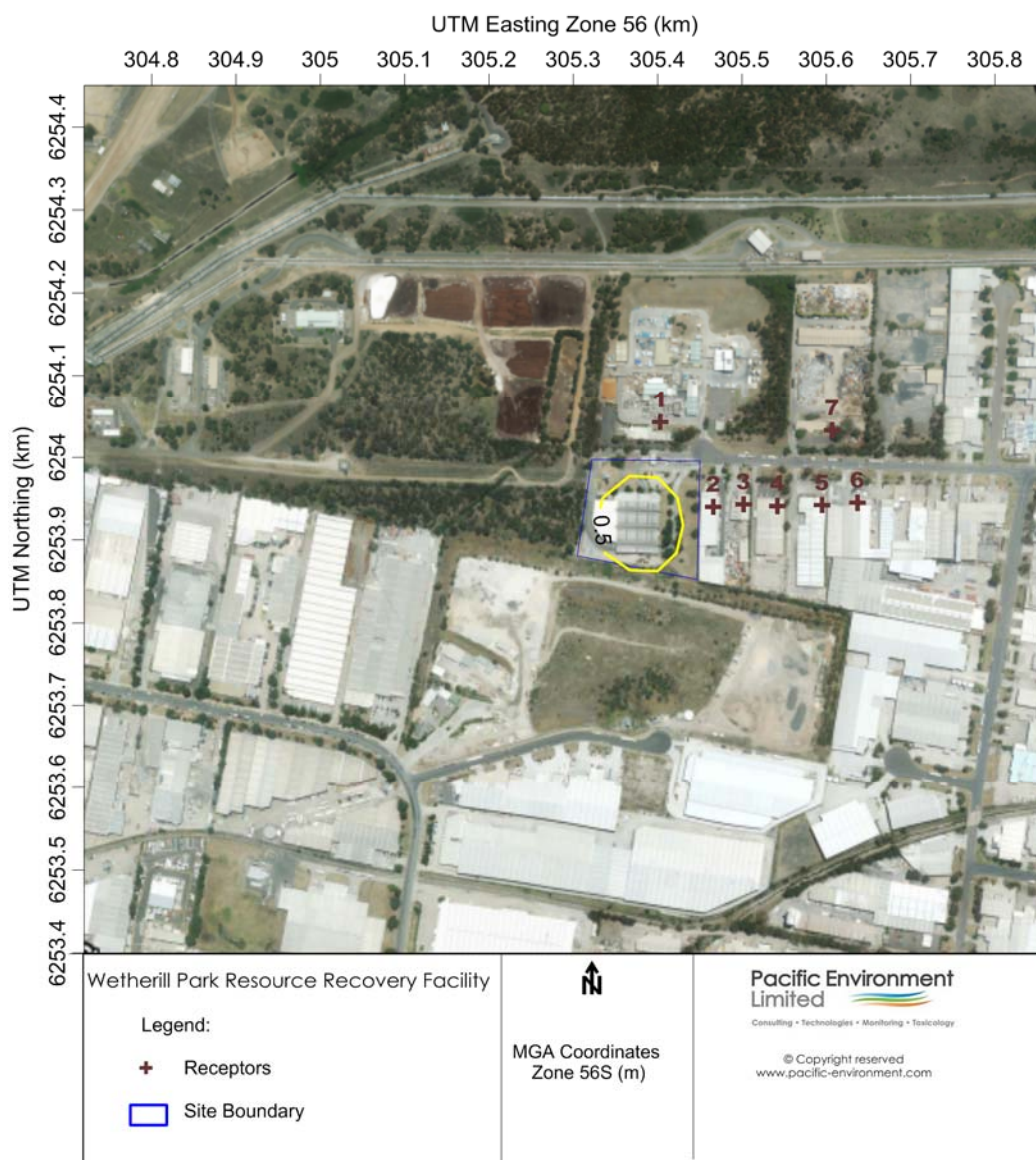


Figure 11.2: Predicted 99th percentile odour concentrations for existing operations (OU)

The results show that receptor R2, immediately adjacent to the Site on the east side, will be the most greatly affected by the Proposal. However, odour levels are not predicted to exceed the EPA criterion at this location. In addition, a solid high wall separates the Wetherill Park Resource Recovery Facility from this receptor. This has not been included in the model, but the effect of this wall is likely to further reduce impacts at receptor R2 in addition to further receptors.

As a conservative assessment, the model output has not incorporated the management strategies currently in practice at the Wetherill Park Resource Recovery Facility, including dust and odour suppression systems. With these considerations in place the impact at receptor 2 is likely to be further reduced.

11.3 Odour and Dust Mitigation Measures

An Air Quality Management Plan would be developed as a sub-plan to the CEMP and would contain the following management measures:

- Engines of on-site vehicles and plant would be switched off when not in use.



- Construction machinery and vehicles on-Site would be maintained and serviced according to the manufacturer's specifications.

During construction activities requiring exposed surfaces and stockpiling the following controls would be in place:

- Minimise area of exposed surfaces.
- Water suppression on exposed areas and stockpiles.
- Minimise amount of stockpiled material.

During on-site hauling activities, the following controls would be in place:

- Watering of unsealed haul roads
- Sealed haul roads to be cleaned regularly.
- Restrict vehicle traffic to designated routes.
- Impose speed limits on-site.
- Covering SUEZ vehicle loads when transporting material off-site.

The existing Odour and Dust Management Plans would be updated as part of the OEMP. A number of control measures are proposed to ensure that the potential for any odour and dust impacts off-Site are minimal. These controls include:

- Continuing existing operation of the dust and odour suppression system.
- No waste will be left on-site for more than 24 hours.
- Waste delivery trucks entering the terminal would be required to be fully enclosed or covered.
- Putrescible and non-putrescible waste stream would be kept separate.
- The amount of putrescible waste on-Site within the terminal at any time would be minimised as much as reasonably practicable.
- Good dust management procedures would be implemented within and outside the terminal building including regular sweeping and washing down, as required.
- Traffic management procedures to co-ordinate the delivery schedule and avoid a queue of the incoming or outgoing trucks for extended periods of time.
- Spill management procedures to include immediate cleaning up of any spill/leakage from incoming and outgoing trucks.
- Maintaining an odour complaint logbook and in the event of a complaint immediately investigate any unusual odour sources (including spill or leakage in the traffic areas) within the site boundary and take appropriate action as required.
- Reviewing operational practices and management plans regularly and training of relevant staff regarding waste handling and transfer and odour and dust suppression.

It should also be noted that the dispersion modelling has not taken into account the use of these control measures and it is likely that the predicted impacts of the Proposal have overstated the potential impact from the Site. Most of these measures have already been implemented in the existing operation.

11.4 Greenhouse Gas Impact Assessment

The processes used for the assessment of Greenhouse Gas (GHG) emissions for the Proposal are based on the following guidelines and regulations:



- *National Greenhouse and Energy reporting (Measurement) Determination 2008*
- 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).

A projects 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 organisations operational boundaries as outlined below:

Scope 1: Direct Greenhouse Gas Emissions – Scope 1 emissions are direct GHG emissions from sources that are owned or controlled by SUEZ. Scope 1 can include SUEZ owned vehicles, and other direct sources.

Scope 2: Electricity Indirect Greenhouse Gas Emissions –These 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 – Scope 3 emissions are those that are a consequence of the Proposal, but occur away from the Site and are not under SUEZ control. Scope 3 emissions are an optional reporting category that allows for the treatment of all other indirect emissions.

As outlined in Chapter 4, the Proposal elements include:

- Increase in putrescible waste;
- Construction of hardstand areas for additional truck and trailer parking and construction of a new workshop;
- Construction of an additional exit from the main transfer building to improve internal traffic flow; and
- Construction of access ramps, suspended slab and hardstand area to establish a small vehicle drop off area to separate domestic drop-offs with commercial drop-offs.

Table 11.5 outlines potential sources of greenhouse gas emissions from the Proposal.

Table 11.5: Potential sources of greenhouse gas emissions from the Proposal

Proposal Phase	Source of emissions
Construction	<ul style="list-style-type: none">■ Electricity Consumption (construction staff)■ Fuel Consumption (earthworks (machinery)■ Fuel Consumption (materials transport)
Operation	<ul style="list-style-type: none">■ Electricity consumption (buildings and machinery)■ Fuel consumption (machinery use)■ Fuel consumption (waste transportation)
Waste decomposition	<ul style="list-style-type: none">■ Treatment of waste■ Landfilling of waste

Construction

Detailed design of the Proposal has not been developed at this stage. It is considered that the additional direct GHG emissions (Scope 1) generated during the construction phase of the Proposal would originate from the combustion of fuels in construction equipment. Diesel would be the primary fuel used in construction equipment such as excavators and trucks. 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.

Operations

The main sources of GHG emissions from the Wetherill Park Resource Recovery Facility are associated with waste management. These emissions have been calculated as a result of the following sources of operation:

- **Increase in Energy demand at the Wetherill Park Resource Recovery Facility:** The Site will have an on-site electricity demand associated with the building and the use of machinery including the weighbridge, compactors, water pumps, lighting and office equipment. The existing facility and associated amenities has a power consumption of approximately 7000 - 8000kWh 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.

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 increased volume of waste.

- **Increase in Waste transportation:** An additional 130,000 t per annum of putrescible waste will be transported to the facility resulting in fuel consumption GHG emissions and an additional 130,000 t per annum of putrescible waste will be transported from the facility by SUEZ to Lucas Heights RRP and/or other licenced waste facility. Emissions from transportation of waste to the Wetherill Park Resource Recovery Facility have not been quantified under the assessment of greenhouse gas emissions, as these are not all SUEZ owned vehicles and not all in SUEZ direct control.
- **Increase in Putrescible waste decomposition:** This waste will be either landfilled or processed at licenced facilities. To varying degrees, this waste will then have associated GHG emissions from its decomposition. This will be similar to the greenhouse gas emissions from its decomposition at Eastern Creek Landfill (as noted in Chapter 4 this 130,000 tpa of waste is currently accepted at Eastern Creek). As such, the GHG emissions from the decomposition of this 130,000 tpa of waste have not been quantified for this assessment, as the Proposal does not result in additional waste to SUEZ total sites.
- **Increase in Non-putrescible waste decomposition:** Due to the inert nature of this type of waste and the outcome that it is recycled, an insignificant level of emissions is expected from the treatment of non-putrescible waste. Non-putrescible waste has, therefore, not been considered under the assessment of the greenhouse gas emissions from the Proposal.

11.5 GHG Impact Assessment

Increase in energy demand

Major existing equipment at the site is diesel powered, and includes:

- Dozer
- Excavator (3)
- Front End Loaders (2)
- Bobcat
- Forklift



Hours and fuel consumption from existing equipment is currently 75,000 L per annum and is expected to approximately double as a result in the increased volume of waste to be processed through the Wetherill Park Resource Recovery Facility. This increase will generate 204 t CO₂-e per annum.

Increase in waste transportation

From the Traffic Assessment Report (refer Chapter 12), current site movements (in and out) are 382 per typical week day and future site movements (in and out) are estimated at 620 on a typical weekday. It is estimated 20% of these movements are staff and visitors not using the weighbridge. Therefore it is assumed that the increase in waste trucks leaving the site equates to approximately 248 per day on a typical weekday.

Transportation for 130,000 tonnes per annum to Lucas Heights using Euro 5 transport will generate 1033 t CO₂-e per annum. It is assumed the route to Lucas Heights is 60 km and the fuel consumption is 50 litres per 100 km.

11.6 GHG Mitigation Measures

The following measures will be implemented on-site for both the construction and operational phases of the Proposal to ensure that the project is energy efficient and reduces greenhouse gas emissions.

The 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:

- The contractor will limit idling time of plant and equipment whilst on-site;
- The contractor will make certain that the only lighting left on overnight around the Site office will be security or emergency/access lighting; and
- 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*.

The following energy efficient features have been identified as feasible on-site measures to reduce the Proposal's most significant sources of emissions.

- All trucks leaving the Site carrying waste will be filled to the maximum reasonably practicable, depending on the truck size, to reduce the number of traffic movements required;
- Hybrid material handling equipment to be used;
- EURO 5 standard for trucks;
- Large trailers and therefore less transfer trips;
- 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; and
- Energy efficient lighting: LED lights to be installed.



CHAPTER 12 TRAFFIC AND TRANSPORT

Chapter 12 addresses the potential key issue of traffic and transport associated with the Proposal. It is based upon the assessment and findings of the “Wetherill Park Resource Recovery Park Transport Impact Assessment” (2015) (Transport Impact Assessment) completed by Peopletrans (Appendix K).

In accordance with the relevant SEARs for the Proposal, the Transport Impact Assessment examines existing traffic conditions surrounding the Wetherill Park Resource Recovery Facility, the traffic generating characteristics of the Proposal during construction and operation, suitability of existing access arrangements for the Site and the transport impact of the Proposal on the surrounding network.

***The Secretary’s environmental assessment requirements
Traffic and Transport - including:***

- ***Details of all traffic types and volumes likely to be generated during construction and operation, including a description of haul routes;***
- ***An assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using sidra or similar traffic model;***
- ***Detailed plans of the proposed layout of the internal road network and parking on-site in accordance with the relevant Australian standards; and***
- ***Detailed plans of any proposed road upgrades, infrastructure works or new roads required for the development.***

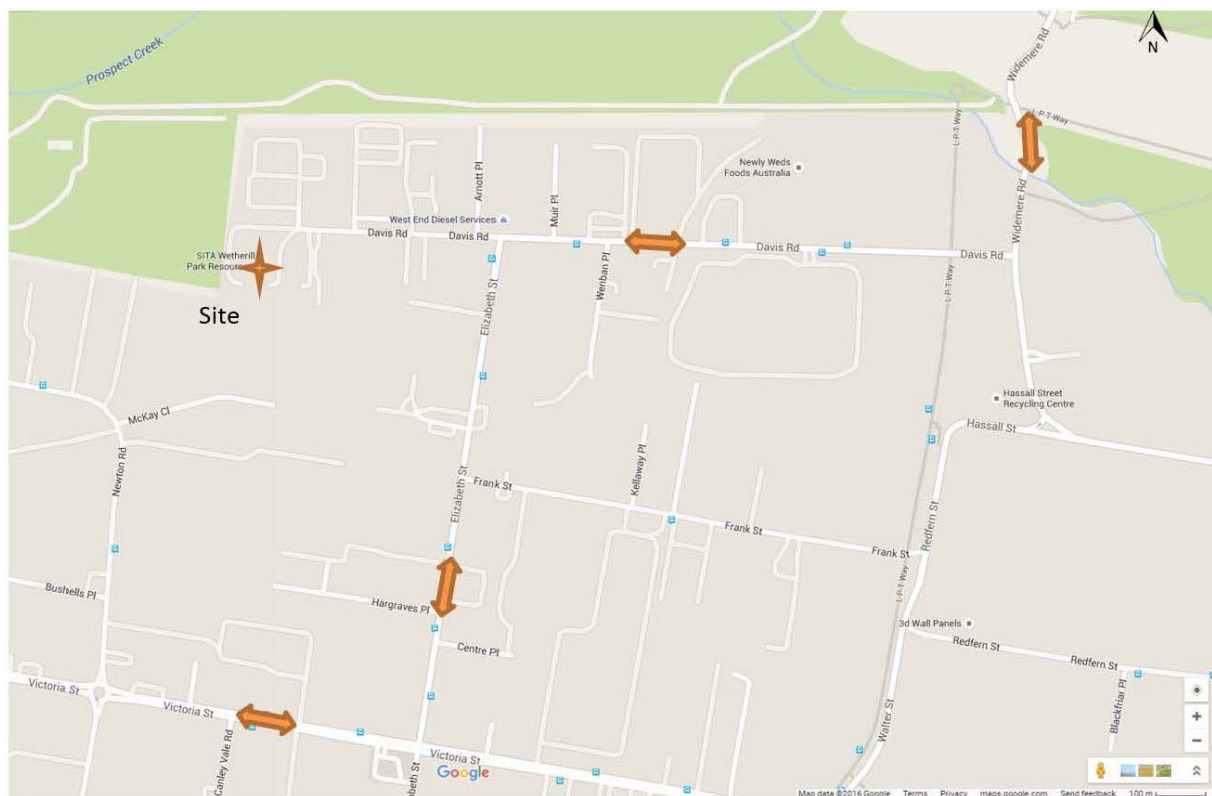
Chapter 12

12.1 Existing Environment

Wetherill Park Resource Recovery Facility is accessed via Davis Road within an existing industrial area within Wetherill Park. Details of the roads and routes to and from the Site are provided in Figure 2.4 of Appendix K and discussed in this section.

Existing Haulage Routes

Waste is currently hauled to the Wetherill Park Resource Recovery Facility by the public and commercial vehicles via a variety of routes that centralise either through the Widemere Road / Davis Road intersection and/or the Victoria Street / Elizabeth Street / Davis Road route. After handling and sorting on-site, waste materials are then transported to Eastern Creek RRP via Davis Road, Elizabeth Street and Victoria Street. Refer Figure 12.1.



Directions of traffic flow

Figure 12.1: Existing Intersections and Haulage Routes

Davis Road

Wetherill Park Resource Recovery Facility is accessed via Davis Road to the east of the Site. It has a street frontage of approximately 40m with a crossover to Davis Road, which is orientated east to west. Davis Road is a generally unrestricted local road, configured with one lane in each direction and approximate 13m carriageway that is under the care, control and management of Council.

Davis Road has an unsignalised, T-Intersection (priority to Davis Road) with Elizabeth Street, which has a daily traffic volume of 2,200 (west of Elizabeth Street). In addition Davis Road also has a signalised T-intersection with Widemere Road to the east of the Elizabeth Street, which has a daily traffic volume of 7,000 (west of Widemere Road) (refer to Appendix K for full details of traffic counts).

Elizabeth Street

Elizabeth Street is a local road between Victoria Street and Davis Road and a state road south of Victoria Street under the care, control and management of the Roads and Maritime Services (RMS). It is a two-way road running north to south and configured with a two-lane (one in each direction) width of 12-18m carriageway. Elizabeth Street has a daily volume of 6,500 (north) to 10,200 (south).

Widemere Road

Widemere Road is a local road that runs in a north south orientation with one lane in each direction south of Davis Road and two lanes in each direction north of Davis Road. Widemere Road has a daily volume of 13,000 (north of Davis Road).



Victoria Street

Victoria Street is a divided road with 1 bus lane and 2 general traffic lanes in each direction and is classified as a state road. It runs east to west, has an approximate width of 23m and has a daily volume of approximately 22,000 west of Elizabeth Street. The intersection of Victoria Street and Elizabeth Street is a signalised X-Intersection.

Existing Site Traffic Volumes

The Transport Impact Assessment commissioned traffic counts at the Wetherill Park Resource Recovery Facility entrance, in addition to three other sites on road and intersections in the vicinity of the Site in June 2015 (refer to Figure 2.4 of Appendix K for location details).

Findings indicate that Wetherill Park Resource Recovery Facility generates 46 movements during the AM peak hour and 48 movements during the PM peak hour with 382 daily movements on a weekday. To provide a conservative future assessment of the traffic impact of the Proposal, it is assumed that the existing peak hours for the Site coincide with the road network peak hours.

The operation of the key intersections have been assessed using SIDRA INTERSECTION, a computer based modelling package that calculates intersection performance based upon vehicle delay. Findings indicate that during AM and PM peak periods: the Davis Road / Elizabeth Street intersection provide a Level of Service (LOS) of A (as measured by average delay per vehicle), which equates to 0-14 seconds per vehicle, the best available LOS rating, indicating good operation. At the intersection of Davis Road / Windemere Road the AM and PM peak periods were observed at LOS A and LOS B (indicating delay of between 15 to 28 seconds), which is considered to be good with acceptable delays and spare capacity).

At the Davis Road / Elizabeth Street intersection during AM and PM peak periods, the LOS ranges from D to F with a LOS E overall. However, as indicated within the Transport Impact Assessment the LOS and operation of this intersection was observed not as a result of excessive delay due to capacity or treatment requirements, but rather the result of long cycle times and priority given to bus movements at the intersection.

Refer to Appendix K for full traffic count and intersection results.

Parking

A car parking area for sixteen (16) spaces is provided near the entrance of the Wetherill Park Resource Recovery Facility for staff and visitors. There are also a number of other locations on the Site (marked and unmarked) totalling 5, which are used to park vehicles as required.

A spot car parking survey was undertaken on 10 September 2015 at approximately 9:00am identifying that a total of eleven (11) cars were parked in the car park. This equates to the number of on-site staff at the time, which suggests that all staff currently drive to work and park on-site.

Existing Internal Traffic Flow

The existing internal traffic flow is described in Chapter 5.

Existing Weighbridge Capacity

As indicated in Figure 5.1 of the Transport Impact Assessment, the existing entry weighbridge requires vehicles to queue behind a specific point to allow for the exit of vehicles from the existing car park to Davis Road. The distance from this point to Davis Road is approximately 23m or up to 4 vehicles.

With an average weighbridge entry service time of 56 seconds per vehicle (rounding up to 60 seconds to be conservative), the existing weighbridge has an average service rate of 60 vehicles per hour. Based upon the traffic surveys on the entrance driveway the maximum arrival rate was 23 vehicles per hour with an average length of vehicle approximately 7 metres. Taking into account the queuing theory formulas provided in Austroads (2008) "Guide to Traffic Management Part 2", the existing weighbridge was determined by the Transport Impact Assessment to be operating at 38% of capacity during the peak hour.



With the current average queue length 0.62 vehicles, for the majority of the time there are no vehicles in the weighbridge system, with the 95th percentile determined to be 2.62 vehicles queued. This means that the current average queue is approximately half of the area available.

12.2 Potential Traffic and Transport Impacts

Construction Impacts

Construction vehicles and trucks would avoid local residential roads where possible and around the Site would use Elizabeth Street or Hassell Street / Widemere Street to access Davis Road. These are the same roads that the trucks accessing the Site currently use for existing operation.

Construction vehicles are expected to be of a similar size and volume to the existing vehicles that frequent the Site. The vehicles would likely be a mixture of trucks, delivery vans, utility vehicles and cars. As the Site is proposed to be closed for the construction period, based on a similar or less volume to the existing site operation, the impact on the surrounding road network is anticipated to be in the order of the existing Site operation and as such, no changes to the road network are proposed.

Operational Impacts

The Proposal seeks to increase the volume of waste delivered to the site by 130 000 tonnes per annum and revise the internal traffic layout. The Proposal does not seek any change to the existing vehicle haulage routes, or change to access/egress onto Davis Road, nor change in the vehicle types that access the Site. The Proposal also seeks no change to the main transfer building footprint or changes to the existing weighbridge.

Future Car Parking

Wetherill Park Resource Recovery Facility currently has a total of 11 full time staff on-site. The Proposal will require this to increase to 16 full time staff working on the Site simultaneously. As identified in the Transport Impact Assessment, taking into account *Fairfield City Council's 'City Wide Development Control Plan Chapter 12 – Car Parking, Vehicle and Access Management Version 17* (Fairfield DCP), future parking requirements are best guided by the future number of staff proposed to be working on the Site. As such it is recommended that sixteen (16) staff spaces and five (5) visitor spaces (including one accessible parking space) are to be provided on the Site.

Based upon the existing car park area near the entrance of the Site and further existing spaces adjacent but currently separated from the main car park, the required 21 car spaces can be accommodated. Refer Figure 12.2. The car parking layout will be designed in accordance with the requirements of the Fairfield DCP and the *Australian Standard for Off Street Car Parking (AS/NZS2890.1:2004)*. This includes an assessment of vehicle swept paths to minimise conflict and maximise safety on the Site.

In addition to the car park spaces, an additional 12 truck and trailer parking spaces will be provided on the Site.

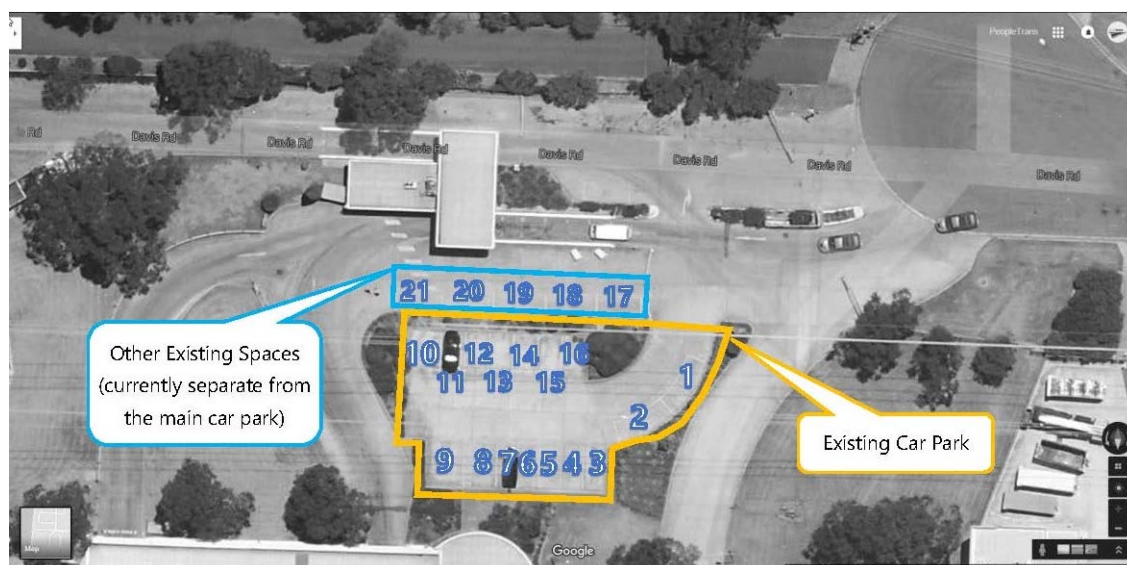


Figure 12.2: Existing Site Car Parking Spaces

Future Weighbridge Operation

To assess the entrance capacity to accept the increased traffic movements as a result of the Proposal, the Transport Impact Assessment analysed existing weighbridge data for 2015 and detailed vehicle weight data from the Eastern Creek RRP site identifying the average load per vehicle from Eastern Creek RRP was 5.94 tonnes. With a Proposed increase of 130,000 tpa delivered at an average weight of 5.94 tonnes, a total of 21,866 additional vehicles would access the weighbridge as a result of the Proposal over the course of a year. This can be broken down further to an average of 1,823 per month and an average of 455 additional vehicles for every week across the year. Utilising 2014 Eastern Creek RRP data identifying the percentage of weight delivered across a week, it is estimated that 18% of the total weight would be delivered on an average weekday. This equates to an additional 82 vehicles per weekday ($=455 \times 0.18$). Adding the additional 82 vehicles per day to the highest measured day during the traffic surveys, results in a total of 248 vehicles being required to utilise the weighbridge for the Proposal. This is an increase of approximately 49%. This equates to the maximum arrival rate increasing to 35 vehicles per hour across the weighbridge. An arrival rate of 35 vehicles per hour means that the weighbridge system would be operating at 58% capacity. Refer to the Transport Impact Assessment (Appendix K) for all calculations.

Using the queuing theory formulas provided in *Austroads (2008) "Guide to Traffic Management Part 2"*, a service rate of 60 vehicles an hour and an arrival rate of 35 vehicles per hour, the 95th percentile queue would be 3.9 vehicles in the system. This means that excluding the vehicle on the weighbridge, up to 3 vehicles could be waiting to enter the weighbridge.

Assuming an average of 7.5 metres plus distance between queuing vehicles, it is likely that the increase in vehicles would result in a 95th percentile queue distance of 24.5 metres, which is longer than the distance between the current specific queuing location for the weighbridge and Davis Road (which is 23 metres).

Therefore to reduce the potential impact of the Proposal to queue cars onto Davis Road as they wait for the weighbridge, the distance from the specific holding point and Davis Road will be increased by 3 metres. This would result in an increased queuing distance of 26 metres and would be 1.5 metres further than the calculated 95th percentile queuing distance.

Future Trip Generation

Traffic generation estimates for the Proposal are calculated based upon the future additional traffic volumes anticipated to enter and exit the Site in the Transport Impact Assessment.

Data identified as part of the traffic surveys completed for the Transport Impact Assessment identify that staff and visitors to Wetherill Park Resource Recovery Facility (vehicles that do not use the weighbridge) account



for an average of 34 vehicles per day or approximately 20% of the total generation of the Site. Assuming this ratio remains, this means that on a typical weekday, a total of 248 vehicles are anticipated to use the weighbridge and a total of 310 vehicles are calculated to enter and exit the Site across the day. As shown in Table 6.1 of the Transport Impact Assessment this could potentially equate to 70 vehicle movements in a peak hour or 620 over the course of a typical weekday.

To provide a worst-case estimate of the Proposal's potential traffic impact upon the road network, it is assumed that the AM and PM peak generation coincides with the AM and PM road network peak hours and that all additional vehicles will be heavy vehicles.

Based upon the above assumptions and calculations, SIDRA modelling was undertaken to assess the transport impact of the Proposal. As identified in Table 6.3 of the Transport Impact Assessment it is identified there would be no change to the LOS of existing intersections affected by the Proposal. Based upon this assessment, the additional traffic generated by the Proposal is not expected to compromise the safety or function of the surrounding road network and no road network upgrades are considered necessary.

Haulage Routes

The majority of waste materials is proposed to be transported to the Lucas Heights RRP, with the remaining materials continuing to be transferred to existing licenced facilities such as Camden, Elizabeth Drive and Chullora in accordance with existing operations and other approvals. In addition some resources, recoverables and recyclables would be collected by independent contractors. (refer Chapter 9).

The specific route to the Lucas Heights RRP would be determined on the time of the day and consider factors such as specific traffic conditions and preference arterial/state road/route availability to avoid potential impacts upon local roads where possible. This preference for arterial/state road routes would also be beneficial to reduce the distance travelled between the Site and Lucas Heights RRP.

Internal Site Layout

The Proposal seeks to revise the internal traffic flow as follows:

- to separate the small vehicle drop-off from commercial drop off to improve accessibility, safety and efficiency and by:
 - adding a truck and trailer parking area;
 - adding an additional exit from the main transfer building to improve traffic flow; and
 - Adding a hardstand area outside the Proposed Workshop.

Under the Proposal the domestic waste drop off area is to be relocated outside of the existing transfer station building under an existing roofed area. This area has been designed with consideration of:

- Vehicle swept paths of a 5.3 long car with 4.3m long trailer accessing, leaving, and manoeuvring in the area. Generally speaking, the area can accommodate 2 vehicles unloading at the same time.
- Entry ramp and exit ramp grades for a car with a trailer a maximum ramp grade of 1:10 on both. The ramp for vehicles exiting should also be extended away from the drop off area.
- Head clearance for the unloading vehicles.

Under the proposal a new truck and trailer parking area of 12 spaces has been provided. This area has been designed with consideration of:

- The swept paths of a 19m articulated vehicle travelling through the area, reverse parking into the first and last bay.
- Grade along the vehicle travel path will be designed in compliance with Australian Standard AS2890.2:2002 and the maximum crossfall in the parking area should be less than 5%.



The new roller shutter opening has been design with consideration of:

- The swept path of a 12.5m HRV exiting from the gate; and
- The headroom below the proposed awning (6m).

The hardstand area in front of the Proposed work shop has been designed with consideration of:

- The swept path of a 19m articulated vehicle reverse parking into the 3 bays respectively.
- The swept path of a 19m articulated vehicle travelling through the new pavement area.
- The swept path along the existing driveway after a 19m articulated vehicle coming out of the new pavement area.
- The grade along the vehicle travel path should be designed in compliance with Australian Standard AS2890.2:2002 and the maximum crossfall should be less than 5%.

Signage and linemarking has been included to improve safety. This includes:

- Give way line marking and give way signs and and “all traffic turn right” sign at the exit of small vehicle drop-off area; and
- Providing give way line marking at the exit of new heavy duty pavement area.

Refer to Figure 12.3 showing the Proposal design and traffic circulation.



12.3 Mitigation Measures

As such, the Proposal would have a low impact upon the safety and efficiency of the surrounding road network during construction and operation of the Proposal and no additional infrastructure to ameliorate potential traffic and safety impacts are required as a result of the Proposal.

- Provision of 21 car parking spaces and 12 truck and trailer parking spaces on-site including one accessible parking space.
- Moving the existing stop line at the weighbridge forward by 3m.



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- Separation of commercial and domestic waste streams through appropriate signage and direction by staff.
- A Construction Traffic Management Plan will be developed as part of the Construction Environmental Management Plan (CEMP) for the Proposal. This would include a traffic management plan identifying vehicle movements to and from the Site, internal access, interactions with general public, parking and access requirements for personnel and safety signage and training of personnel (as appropriate) in traffic management in accordance with relevant requirements and guidelines of the RMS and Council in terms of road safety and network efficiency.



CHAPTER 13 NOISE AND VIBRATION

Chapter 13 addresses the key issue of noise associated with the Proposal. This chapter provides a summary of the Pacific Environment Limited Wetherill Park Resource Recovery Facility Upgrade – Noise Assessment, 2015 (Noise Assessment) provided in Appendix L of the EIS to assess potential noise impacts of the Proposal. The Noise Assessment includes identifying the methodology of the assessment, existing environment, impact assessment (based on estimated emissions) and mitigation measures.

The Secretary's environmental assessment requirements:

- ***A quantitative assessment of potential construction, operational and transport noise and vibration impacts, including potential impacts on nearby noise sensitive receivers; and***
- ***Details and justification of the proposed noise mitigation and monitoring measures.***

Chapter 13

13.1 Existing Environment

Sensitive Receivers

The closest noise sensitive premises to the proposed development are identified as follows:

- R1: residential at 38-5 Trivet Street. Nearest receiver (> 1.5 km)
- R2: residential at 144 – 156 Ferrers Road
- R3: residential at 105 Ferrers Road
- R4: residential at 165-167 Chandos Road
- R5: residential at 172 Chandos Road
- I1: industrial at 19 Davis Road
- I2: industrial at 22 Davis Road
- I3: industrial at 157 Newtown Road

Figure 13.1 presents the Site, surrounds and identifies the noise measurement locations and noise sensitive receivers.



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Figure 13.1: Site Location, Surrounding Area and Monitoring Locations

Local Meteorology

Dominant winds were identified during the evening and night between north east and south-east. As all the receivers as shown in Figure 13.1 are located west of the Site, east wind direction only has been considered as a worst case modelling scenario.

In accordance with Table C2 in Appendix C of the INP, the potential for temperature inversions was considered, where they occur for 30% or more of the time during the night time period (6.00 pm-7.00 am) in the winter months (June, July and August).

Analysis of stability class data has been performed using CALMET data prepared for the Proposal. The data show a high proportion of neutral conditions (30% D-class) and (36% F-class).

Background Noise Monitoring Results

A summary of the most affected receivers and attended monitoring locations is presented in Table 13.1.

Table 13.1: Nearest Affected receivers and Monitoring Locations (WGS84, Zone 56J)

IDs	Easting	Northing
R1 – A1	303835	6253797
R2 – A2	303390	6253988
R3	303246	6254029
R4	303004	6254127
R5 – A3	302970	6254206
I1	305451	6253909
I2	305386	6254029
I3	305173	6253759



Due to the distance to nearest residences, intervening industrial land uses noise monitoring was limited to short term attended noise measurements. Measurements were carried out on the 10 November 2015 during the day time period. The Wetherill Park Resource Recovery Facility was operating under normal conditions during noise monitoring.

Measurements outside the Site, at the nearest receivers, were undertaken over 15 minute intervals using an NTI Audio XL2 hand held Type 1 sound level meter (S/N: A2A-06905-E0).

The weather conditions on the 10th November 2015 included clear skies, temperatures ranged between 26 and 29 degrees Celsius with nil winds observed on-site.

The local ambient noise level is dominated by the typical hum noise from industrial areas nearby and a high component of road traffic.

Table 13.2 provides results of the attended noise measurements at nearest potential affected receivers.

Table 13.2: Attended Noise Measurement Results (at potential affected receivers)

Start Time	Location	Descriptor				Comments
		LA1, 15min	LA10, 15min	LA90, 15min	LAeq, 15min	
12:45	A1	60	54.7	43	51	Intermittent traffic on Trivet Street and nearby industrial noise.
13:15	A2	63	53.7	41	52	Rural background noise and far intermittent traffic noise on Ferrers Road.
13:47	A3	73	65.8	46	62	Very close road traffic noise on Chandos Road.

Additional measurements within the Site were undertaken in order to provide source information for noise modelling.

13.2 Impact Assessment

Noise Criteria

The Project Specific Noise Levels (PSNLs) reflect the most stringent noise level requirement from the *NSW Government Industrial Noise Policy* (INP) (EPA 2000) intrusive and amenity criteria as presented in Table 13.3. Consideration has been provided in the assessment to the *Draft Industrial Noise Guidelines* (ING) (EPA, 2015).

Table 13.3: Project Specific Noise Levels

Receiver Type	Period	Intrusiveness criteria LAeq, 15 min dB(A)	Amenity criteria LAeq dB(A)	PSNL
Residential	Day	35	55 - 60	35 LAeq, 15 min
Evening		35	45 - 50	35 LAeq, 15 min
Night		35	40 - 45	35 LAeq, 15 min
Industrial	When in use	-	70 - 75	70 LAeq

Sleep Disturbance Criteria

In order to provide a conservative approach, a value of L_{Amax} 50 dB(A) has been used, based on the World Health Organisation Guidelines for Community Noise (WHO, 1999).



Traffic Noise Criteria

The noise assessment criteria for residential land uses affected by additional traffic generated by land uses developments based on the *NSW Road Noise Policy* (RNP) (EPA, 2011) are presented in Table 13.4.

Table 13.4: Road Traffic Noise Assessment Criteria for Residential Land Uses

Road Category	Type of Project/Land use	Assessment Criteria – dB(A) ¹	
		Day (7.00am to 10.00pm)	Night (10.00pm to 7.00am)
Freeway/arterial/sub-arterial	Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	LAeq,15hr 60 (external)	LAeq,9hr 55 (external)
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	LAeq,1hr 55 (external)	LAeq,1hr 50 (external)

The RNP specifies relative increase criteria for the increase in total traffic noise level due to a traffic generating project where the existing traffic noise level is significantly below the criteria in Table 13.4. Where this occurs an increase must be limited to 12 dB above the existing day or night noise level and not exceed the traffic noise criteria.

Additional specific relative increase criteria apply to traffic generating developments affecting existing sensitive land uses. The *Road Noise Policy Application Notes* (EPA, 2013) states the following:

Any increase in the total traffic noise level as a result of the development should be limited to 2 db above that of the noise level without the development. This limit applies wherever the noise level without the development is within 2 db of, or exceeds the relevant day or night noise assessment criterion.

Construction Noise Criteria

Construction noise management levels are given in the *NSW Interim Construction Noise Guideline* (ICNG) (DECCW, 2009). Construction noise management levels for residential receivers are presented in Table 13.5. The management levels represent the level at which when exceeded management measures are required.

Table 13.5: Construction Noise Management Levels at Residences

Time of Day	Management Level LAeq,15min
Recommended Standard Hours: Monday to Friday 7.00 am to 6.00 pm Saturday 8.00 am to 1.00 pm No work on Sundays or Public Holidays	Noise affected RBL + 10 dB(A) Highly noise affected 75 dB(A)
Outside recommended standard hours	Noise affected RBL + 5 dBA



Relevant construction noise management levels for non-residential receivers are presented in Table 13.6.

Table 13.6: Non-residential land use construction noise management levels

Land Use	Noise Management Level
Industrial	LAeq,15min 75 dB(A) (external)

Vibration

Human comfort limits are the most stringent. Therefore, for occupied buildings, if compliance with human comfort limits is achieved, it will follow that compliance will be achieved with the building damage objectives. The EPA's *Assessing Vibration: A Technical Guideline* provides acceptable values for continuous and impulsive vibration in the range 1-80Hz. Where vibration is intermittent, such as for construction sources, a vibration dose is calculated and acceptable values are shown in Table 13.7 below.

Table 13.7: Acceptable Vibration Dose Values for Intermittent Vibration (m/s^{1.75})

Location	Daytime ¹		Night Time ¹	
	Preferred Value	Maximum Values	Preferred Value	Maximum Value
Critical areas 2	0.10	0.20	0.10	0.20
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

Modelling Methodology and Estimated Emissions

Operational Noise

Noise modelling has been undertaken using the *ISO 9613 Acoustics – Attenuation of sound during propagation* outdoors (ISO, 1996) and CONCAWE's *Special Task Forces in Noise Propagation* (CONCAWE, 1981) algorithms, as implemented within the CadnaA 4.5 acoustic modelling package. The noise modelling takes into consideration the sound power level of the Proposal operations, activities and equipment, and applies adjustments for attenuation from geometric spreading, acoustic shielding from intervening ground topography, ground effect, meteorological effects and atmospheric absorption. Topographic data for the project area was based on NSW Land and Property Information 2 metre contour data. Noise breakout from the main transfer station building has been included.

Modelling has assumed a conservative 15 minute scenario. The locations of the equipment on-site for the modelling are presented in the Noise assessment and to present a conservative approach, each of the equipment is assumed to have 100% utilisation.

As all sensitive receivers are located west of the Site, modelling was undertaken considering easterly winds.

Predicted noise levels for the nearest receivers are presented in Table 13.8 for normal future operations for each meteorological modelling scenario. The noise contours are shown in Figure 13.2. All receivers are predicted to receive acceptable noise levels for all assessed meteorological conditions during future normal operations when assessed against the INP and all results are below the sleep disturbance criteria for all receivers scenario modelled.



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Table 13.8: Predicted Operational Noise per Meteorological Scenario

Receiver ID	Receiver Type	Criteria LAeq,15min			Predicted Noise Level LAeq,15min dB(A)			
					Day	Eve/Night	Eve/Night	Eve/Night
		D	E	N	1 (Neutral)	2 (Neutral)	3 (Gradient Wind)	4 (Adverse)
R1	Residence	35	35	35	29	29	34	34
R2					25	25	30	30
R3					23	21	27	27
R4					26	20	26	26
R5					26	25	26	26
I1	Industrial	70 - 75 (LAeq)			64	56	54	57

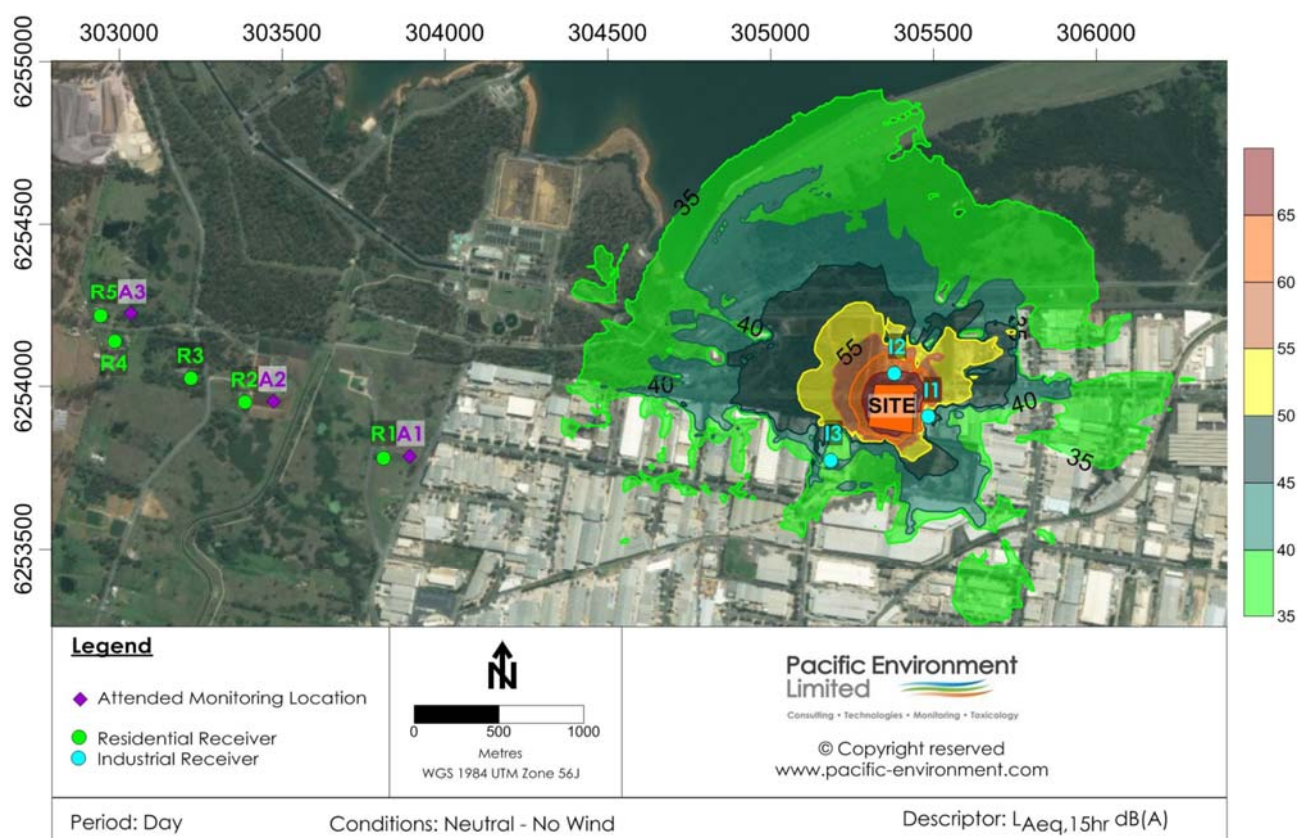


Figure 13.2: Noise Contours for Daytime and Neutral Wind Conditions

Traffic

A conservative approach has been considered for operational vehicle movements as the vehicle noise is constant over a 15 minutes period and all the vehicles are leaving the Site through western exits (same direction where sensitive receivers are located).

The Traffic Assessment Report (Appendix L) presents existing peak vehicle movements (23 movements) and future generation (35 movements). The overall road traffic noise increase would equate to approximately 1.8 dB near the Site. This traffic noise generation does not exceed traffic noise generation criterion of <2 dB.



Operational Vibration

No operational vibration sources are anticipated to impact on the nearest residential due to the distance (>1.5km) areas from operations at the Site.

No vibration impacts higher than exiting industrial normal operations are expected within nearby industrial receivers due to future operations. No perceptible vibration was observed on-site.

Construction Noise

Using the same modelling methodology as adopted for operational noise, the construction activities that will occur (demolishing an existing wall, construct a workshop, constructing a hardstand area and roadworks) have been modelled simultaneously as a conservative approach.

Sound power levels were sourced from *AS 2436 Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites*, the UK's Department for Environment, Food and Rural Affairs *Noise Database for Prediction of Noise on Construction and Open Sites*, and the *Environmental Noise Management Manual* (RMS, 2001).

Full predicted noise levels for construction scenario are presented in Table 13.9 at the most affected receiver locations under daytime neutral meteorological conditions.

Table 13.9: Predicted Construction Noise (Standard Hours)

Receiver ID	Receiver Type	Standard Hours Criteria LAeq,15min	Predicted Noise Level LAeq,15min dB(A)
			Standard Hours (7am – 6pm)
			Scenario 1 (Neutral)
R1	Residence	Noise affected RBL + 10 = 40dB(A)	33
R2			23
R3		Highly noise affected >75 dB(A)	<20
R4			<20
R5			<20
I1	Industrial	75 (LAeq) When in use	67
I2			54
I3			34

The results show that for the construction works, the anticipated noise level at the most sensitive receivers will be below the construction noise criteria during standard working hours.

Construction Vibration

The methodology contained in the USA's Federal Transit Administration *Noise and Vibration Impact Assessment Manual*, (FTA Manual, 2006) as recommended in *Assessing Vibration a Technical Guideline*, was used to predict vibration levels of plant at a range of distances.

Vibration source levels were taken from the ENMM and the FTA Manual. Table 13.10 presents a summary of the predicted levels.



Table 13.10: Predicted Vibration Levels

Item1	Guideline Levels (mm/s) ²			Predicted Vibration Level PPV mm/s at Distance (m)					
	Com merc ial	Resi denti al	Sens itive	5	10	20	30	40	50
Jackhammers	20	5	3	1.4	0.5	0.3	0.2	0.1	0.1
Rock Breaker				17.0	6.0	2.1	1.5	0.8	0.5

The results indicate that vibration from construction activities will have no significant impact at the nearest receivers.

13.3 Mitigation Measures

The Proposal will not exceed noise criteria despite the conservative assumptions utilised in the Noise Assessment to calculate potential noise impacts. As such, no additional mitigation measures will be adopted as a result of the Proposal, other than those in place as part of current operations at the Site.

In relation to operational noise, the assessment indicated the following:

- The predicted noise levels will comply with the most stringent operational noise criteria (with low frequency modifying factor applied where applicable) under the normal operational assumptions.
- No exceedances of traffic noise and sleep disturbance criteria are predicted.

Predicted receivers noise values are unlikely to be measureable on-site as exiting background noise levels are much higher than the predicted ones.

In relation to construction noise, the assessment indicated that construction noise levels will be below relevant construction noise criteria for standard construction hours at all receivers.

The road traffic noise assessment indicated that the majority of project related traffic is expected on Davis Road (with no sensitive receivers) and then split in through different suburban and major roads.



CHAPTER 14 VISUAL

Chapter 14 provides an assessment of the potential visual impacts of the Proposal on the Site and the surrounding area.

The Secretary's environmental assessment requirements:

- ***Including an assessment of the potential visual impacts of the project on the amenity of the surrounding area.***

Chapter 14

14.1 Existing Site Character

The predominant existing visual features of the Wetherill Park Resource Recovery Facility comprise:

- The transfer station building, an industrial concrete building with a height of approximately 8.5m (approximately RL48.5 mhd) above the surrounding ground (approximately RL41.0 mhd);
- A two-storey office block attached to the transfer station building fronting Davis Road;
- A weighbridge at the site entry / exit; and
- A high voltage power transmission tower.

A number of trees are located on-site as follows:

- Three young trees up to approximately 5m high located at the boundary with Davis Road. These trees are expected to be kept small as they are located within the high voltage power line easement.
- Three trees of approximately 10m height are located along the northern wall of the transfer station building.
- Over twenty trees in the eastern part of the Site, between the transfer station building and the eastern site boundary. The trees vary in height from less than five meters to over 10m in height and are quite dense (distance less than 5m between trees).

The Site is bounded to the north and east by industrial estates. A mostly vegetated mound (former landfill) is located to the immediate south of the Site, while bushland is located to the west.

The surrounding land of the Site falls to the east, from an elevation of approximately RL 100 mAHD at a point 1.5 km to the west of the Site, to RL40 mAHD at the Site to RL 35 mAHD at a point approximately 750m to the east of the Site. The land towards the south is relatively flat with the exception of the vegetated mound (former landfill) to the south of the Site that rising to an elevation of between RL 55 mAHD (Google elevation data) and RL 68 mAHD (Nearmap elevation data). Based on this elevation data and visual observations, the mound (former landfill) elevation is higher than the elevation of the transfer station building on the Site. The Prospect Dam embankment is located approximately 1000m to the north and has an embankment level of approximately RL 60 mAHD. All elevation data are based on publically available NSW topographic data (LPI 2015).



Figure 14.1: Visual aspects of the Site (Source: Nearmap) Not to Scale, North at the top

14.2 Existing View Situations

Based on observations of the Site from Davis Road, the main transfer station building, car park and weighbridge are visible from the cul-de-sac on Davis Rd (refer Figure 14.2). Trees screen parts of the main transfer station building from being seen from Davis Rd. At times, vehicles transporting waste are visible from Davis Rd whilst entering or leaving the Site or while waiting at the weighbridge. High voltage power lines traversing the Site are visible from Davis Rd.



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Figure 14.2: Wetherill Park Resource Recovery Facility as seen from Davis Rd (Source: Google Streetview, April 2014)

View of the Site by properties to the south is screened by the vegetated mound (former landfill) on the adjacent property. Observations from neighbouring roads also confirm that the Site is screened by the vegetated mound. Refer to Figure 14.3 for a view of the vegetated mound (former landfill).



Figure 14.3: View of the vegetated mound (former landfill), facing approximately south



Figure 14.4: View of tree growth (Western Sydney Parklands), facing approximately west



Views of the Site from the west is screened by dense tree growth (refer Figure 14.4). No view point external to the west of the Site could be accessed.

The closest public road other than Davis Rd is McKay Close to the south. A view due north from McKay Close towards the site is shown in Figure 14.5.



Figure 14.5: View north towards the Wetherill Park Resource Recovery Facility from McKay Close cul de sac (Source: Google Street View)

The Site is not visible from roads in the vicinity such as Newton Road to the south and west and Elizabeth St to the east. The Wetherill Park Resource Recovery Facility is screened from view from these streets by existing industrial buildings. The Site is only visible by public road from the Davis Rd cul de sac as shown in Figure 14.2.

The nearest sensitive receptors (residential properties) are located approximately 1500m to the west and south of the Site as shown in Figure 4.1 There is no direct view path of the Wetherill Park Resource Recovery Facility from the nearest residential properties. The nearest residential property to the north is approximately 4000m from the Site, separated by Prospect Reservoir, bushland and the M4 motorway. The nearest residential property to the east is approximately 2500m from the Site.

14.3 Potential Impacts

The Proposal primarily seeks internal amendments to the existing transfer station building, in addition to minor amendments to internal site road layout. There will be no changes to the heights of the existing buildings.

As shown in the Site plan of the Proposal (Figure 1.2), a single story workshop is also proposed to be constructed to the east of the Site. This facility is proposed to have a lower roof height than the transfer station building. Additional hardstand area and truck and trailer parking are proposed to be constructed in the east of the Site.

The workshop will be largely screened by existing trees along the Site boundary with Davis Road and a wall of the large industrial building that is located to the east of the Site.

The overall visual impacts of the Proposal will be minimal with the main transfer station building, car park and weighbridge visible from the cul-de-sac on Davis Rd remaining unchanged. The workshop may be partially visible from the cul de sac of Davis Road and partially visible from industrial properties adjacent to the Site. However this impact is considered low. The visible features of the Proposal will be commensurate with the visual character of the Site and surrounding industrial area. Furthermore, located at the end of a Cul de Sac,



traffic on this part of Davis Road will be limited to Site users and users of the properties immediately adjacent to the Site.

14.4 Mitigation Measures

No mitigation measures are proposed other than maintaining the existing screening on-site, as the visual impact on surrounding properties will be minimal as a result of the Proposal.



CHAPTER 15 HAZARDS AND RISK

SEPP 33 seeks to identify and assess where a proposed development is a potentially hazardous or offensive industry, measures are employed to reduce the potential impact of the development. In accordance with SEPP 33 a preliminary risk screening has been undertaken for the Proposal and Chapter 15 summarises the results of this risk screening, which are provided as a separate technical report in Appendix M in addition to an assessment of potential hazards relevant to the Proposal.

The Secretary's environmental assessment requirements:

- *Including a preliminary risk screening undertaken in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) and Applying SEPP 33 (dop, 2011), and if necessary, a Preliminary Hazard Analysis (PHA); and*
- *An assessment of the likely toxicity levels of loads transported to and from the site.*

Chapter 15

15.1 Existing Environment

The Proposal is seeking to increase the licenced capacity of Wetherill Park Resource Recovery Facility in addition to internal changes such as the separation of domestic drop-off arrangements from commercial waste streams to improve accessibility, safety and efficiency. As such, it does not propose any change to the storage, handling and transport of materials on the Site, other than that associated with the increase in putrescible waste acceptance.

The existing storage, handling and transport of materials to the Site are subject to the existing approvals and/or licences for the Site including the existing EPL 4548. As specified in Chapter 5, all materials that may be classified as dangerous goods (for the purposes of the SEPP 33 risk screening process) that are currently transported, stored or handled on-site are approved for the Site with existing management plans in place to appropriately manage these materials in accordance with existing legislation.

15.2 Potential Impacts

The SEPP 33 Risk Screening Report (Appendix M) has been prepared to provide a preliminary risk screening in accordance with SEPP 33 and Applying SEPP 33 and as necessary would provide a Preliminary Hazards Analysis (PHA) for the Proposal.

Risk Screening

The following classes of dangerous goods are currently and will continue to be stored at Wetherill Park Resource Recovery Facility as a result of the Proposal:

- **Class 2.1 – Flammable Gases** including, Autogas and forklift gas for plant, gas bottles, acetylene for welding and machinery repairs and further minor quantities for repair, pest control and cleaning products.
- **Class 2.2 – Non-flammable, non-toxic gases** including Argoshield Universal for use during welding and machinery repairs.
- **Class 2.3 – Toxic Gases** including liquid chlorine stored within <100 kg cylinders.
- **Class 3 – Flammable liquids** including minor quantities of lubricants, repair and cleaning products, unleaded petrol for plant, in addition to approved accepted waste streams on the Site.
- **Class 6.1 – Toxic Substances** including approved waste material accepted at the Site such as waste inks and dyes and fluorescent tubes.



- **Class 8 – Corrosive Substances** including Sodium hydroxide (50%), caustic soda in addition to batteries and e-waste within the approved waste streams accepted on-site.

As specified in the SEPP 33 Risk Screening Report, the volumes of materials classified as dangerous goods to be stored on-site are well below the screening thresholds (identified in Applying SEPP 33) for their respective quantities. Furthermore all materials classified as dangerous goods are to be located at least 20m from the boundary of the Site within or adjacent to the existing transfer station building in accordance with relevant safe storage practises (drums/goods cabinets). As such, in accordance with SEPP 33 and the Applying SEPP 33 preliminary risk screening procedure, the Proposal is not considered potentially hazardous and a Preliminary Hazard Analysis is not required.

Toxicity of Loads

The Site will continue to accept putrescible and non-putrescible waste in accordance with existing requirements with waste operations remaining largely the same as existing operations as identified in Chapter 9. Section 9.2 of the EIS addresses the transport of waste to and from the site including the process of waste acceptance through the weighbridge and quality control. This includes the screening process, which includes a process of assessment to deal with non-conforming waste management, which may potentially include waste toxicity to be accepted at the Site and the transfer of waste from the Site.

Any general solid waste (putrescible) and/or general solid waste (non-putrescible) received for storage or recovery or processing at the premises will be assessed and classified in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (DECC, 2008).

Operational Risk Assessment

The identification of potential hazardous incidents and scenarios is a key step in identifying potential hazards and risk. The Hazards Report provides this identification of potential scenarios including their causes and consequences in addition to safeguards and management measures to mitigate the potential impact of the Proposal upon people, property and/or the environment on-site or off-site. This identification process enables the establishment of the adequacy and relevancy of proposed safeguards and mitigation should they be required.

Identified risks include:

- Fire in site vehicles, infrastructure and/or buildings.
- Fire or explosion from dangerous goods.
- Unsafe vehicle unloading of waste to designated area.
- Unsafe storage/stockpiling of waste.
- Unsafe handling/storage of Asbestos.
- Chemical Spill and loss of containment.
- Loss of containment of leachate from putrescible waste.
- Delivery and/or processing of materials not licenced to be accepted at Site.
- Dust generated from operating equipment, vehicle movements and bulk material handling.
- Vehicle exhaust generated from movement of vehicles in the existing enclosed building.
- Noise generation.
- Natural Disaster.
- Injury to public (accessing unauthorised areas).
- Biological hazards.



- Microbial due to decomposition of putrescible waste.
- Gases/ odours due to the decomposition of putrescible wastes.
- General occupational health and safety hazards to workers during operation.

It is considered that the identified hazardous scenarios above are not new to Wetherill Park Resource Recovery Facility and have been managed (as required) since the commencement of operations at the Site. The Proposal would not result in the introduction of new dangerous goods and/or potentially hazardous materials. The staff at the site are familiar with the existing potential hazards associated with these materials and would continue to ensure the Site operates in accordance with existing technical and management safeguards including the conditions of consent for the Site and associated management documentation.

Therefore the Proposal is not considered to be hazardous based upon the hazard and risk screening and identification and assessment of potentially hazardous scenarios. It is considered the Proposal is not offensive or hazardous in accordance with SEPP 33, and that identified risk levels associated with the Proposal are not be a significant risk to human health, life or property or the biophysical environment and do not preclude approval.

15.3 Mitigation Measures

Table 2 of the Hazards Report (Appendix M) identifies potential occupational health and safety hazards during operation and construction including their causes and consequences, in addition to safeguards and management measures. The management standards and guidelines utilised for existing operations at Wetherill Park Resource Recovery Facility will continue to be applied on the Site and be incorporated into an updated OEMP for the Proposal as addressed through the EIS.



CHAPTER 16 SOCIO-ECONOMIC

This chapter provides an assessment of the social and economic impacts of the Proposal, including identification of the socio-economic characteristics of the surrounding area of the Wetherill Park Resource Recovery Facility and the wider Fairfield LGA.

To identify potential impacts and/or issues associated with socio-economic as a result of the Proposal, the assessment is supported by background research including information reviews and an analysis of demographic profiles and existing impacts of the Wetherill Park Resource Recovery Facility. This includes the preparation and implementation of a community, business and stakeholder consultation program (refer to Chapter 8) to identify any community issues to be addressed, and analysis and research of existing and similar activities.

The Secretary's environmental assessment requirements:

- ***Including and (sic) assessment of the economic and social impacts of the development, particularly of any benefits to the community***

Chapter 16

16.1 Existing Environment

Fairfield LGA Land use

Fairfield LGA is located in Sydney's south western suburbs, approximately 32 km from the Sydney CBD. Fairfield LGA is bounded by Blacktown, Holroyd and Parramatta LGAs in the north, Bankstown LGA in the east, Liverpool LGA in the south and Penrith LGA in the west.

Fairfield LGA encompasses a total land area of approximately 104 square kilometres. Fairfield LGA is mainly residential but contains six industrial and business parks (approximately 830 hectares), which include large-scale industrial estates at Wetherill Park and Smithfield, as well as local industrial centres. Major commercial centres are located at Fairfield and Cabramatta.

Fairfield LGA Demographics⁴

As of the 30 June 2014, the population of Fairfield LGA was recorded as 203,109. The population is projected to increase by 19,855 persons (10.10% growth) by 2031 at an average annual change of 0.48% per year.

Fairfield LGA has an average weekly income of \$1,022 and an average household size of 3.23 compared to the Greater Sydney average of \$1,447 weekly income and household size of 2.69 for Greater Sydney. Unemployment in Fairfield LGA is higher than the Greater Sydney average (9.7% compared to 5.7%) with the largest employment sectors in the LGA being manufacturing, retail trade, healthcare/social assistance and construction.

Age structure within Fairfield LGA shows a similar proportion of infants (0-4 years) and seniors (70 and over) to the statistical averages for Greater Sydney, but has a slightly higher proportion of children (5-17 years) (18.4% compared to the Greater Sydney average of 16.1%) and a slightly lower larger proportion of adults aged 18-69 years (66.5% compared to the Greater Sydney average of 68.1%).

As identified in Sections 16.2 and 16.3, the Proposal will result in the generation and ongoing facilitation of local employment and income generation within Fairfield LGA. Furthermore the Proposal will secure waste resource cost efficiencies and projected community needs (based on population and household structure) thereby resulting in a net benefit to Fairfield LGA and the wider area.

⁴ All statistics utilised in this section are provided by <http://profile.id.com.au/fairfield> and are identified and utilised on Fairfield City Council website http://www.fairfieldcity.nsw.gov.au/info/20010/your_council/378/fairfield_city_statistics



Wetherill Park

Within Fairfield LGA, Wetherill Park is an established residential, industrial and parkland area, with some small commercial areas. The Wetherill Park Resource Recovery Facility is located within the existing Wetherill Park industrial area and is zoned as IN1 – General Industrial within the *Fairfield Local Environment Plan 2013*.

Wetherill Park Resource Recovery Facility

Wetherill Park Resource Recovery Facility consists of a purpose built facility to accept and process waste materials through on-site segregation and the transfer of material for alternative processing or disposal off-site. The facility currently accepts 90 000 tonnes per annum (tpa) of non-putrescible waste and 10,000 tpa of putrescible waste and provides for both commercial and domestic waste transfer.

Wetherill Park Resource Recovery Facility is one of eight waste transfer station facilities operated by SUEZ in the Sydney metropolitan area. The Wetherill Park Resource Recovery Facility is strategically located between the Eastern Creek RRP and Kemps Creek RRP and Lucas Heights RRP, providing processing and transfer facilities to support the operation of these sites and thus currently providing a key role in waste management for Sydney.

As identified within Chapter 4, the Proposal involves the intensification of an existing waste resource recovery facility within an existing industrial area. Should the Proposal not be undertaken, waste service will be restricted, particularly with the closure of Eastern Creek RRP, and will result in existing customers being required to travel an additional 13 km (one way) to dispose of waste, at the Seven Hills RRF. Refer to Chapter 3 for further information on the Proposal context and need.

16.2 Potential Impacts

Broad and local social and economic impacts of the Proposal are identified and assessed in Table 16.1. The purpose of this assessment is to demonstrate the Proposal would have a net community benefit in accordance with the SEARs.

Table 16.1: Summary of Potential Socio-Economic Issues identified for the Proposal

Potential Impact	Impact
Employment: Generation of construction and operation related employment	Employment generation benefits would occur on commencement of the Proposal's construction works. SUEZ currently employs 11 full time staff at the Wetherill Park Resource Recovery Facility. The Proposal would create a further 5 full time roles once the site is fully developed as well as short term roles during the construction phase.
Attainment of Waste Management Objectives: including the waste management hierarchy and the aims and objectives of the WARR Act and POEO Act.	The expansion of the Wetherill Park Resource Recovery Facility would allow efficient and ongoing provision of resource recovery initiatives and infrastructure, contributing to the progression towards the diversion rate objectives and aims of appropriate State and Commonwealth legislation such as the <i>Protection of the Environment Operations Act 1997</i> and the waste management objectives of the WARR Act, including the waste hierarchy of avoidance, resource recovery and disposal. It is considered the Proposal would have a positive impact upon waste minimisation and resource recovery in the region.
Cost efficiencies: including aggregation and densification of waste resources	<p>The Proposal will result in securing long term cost efficiencies such as aggregation (waste activities being located closer together) and densification of necessary waste resource facilities within the LGA and surrounding local government areas.</p> <p>The expansion in the amount of putrescible waste that can be accommodated at the Site will reduce the need for future development of an additional facility to accept anticipated future waste streams.</p>



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Potential Impact	Impact
	Thereby the Proposal will result in providing the community with more equitable and cost effective access to waste management services, which may result in cost benefits.
Local Expenditure: Leading to strengthening local economy.	The estimated capital expenditure of the Proposal is approximately \$1,944,950. This expenditure would contribute to and strengthen the local and regional economy.
Further Issues: Including impact on land values, public access and community use.	<p>Given the Proposal proposes to expand the Wetherill Park Resource Recovery Facility within the existing Site footprint, the Proposal would have negligible social and economic impacts related to property acquisition, community use and/or existing public access as SUEZ is the long term landholder of the Site.</p> <p>The facility is also strategically located within a highly industrial area away from residential areas. It is therefore considered the Proposal would not reduce the economic land value of the surrounding area.</p>
Community Use: Safety and ease of use	The Proposal features separation of domestic drop-off from commercial waste streams to improve accessibility, safety and efficiency of the operations. This area allows small vehicles (residents and small businesses) to drop off recyclable materials and encouraging source separation that would improve resource recovery.

16.3 Mitigation Measures

No further mitigation measures are proposed with regard to socio-economic issues as it is considered that the Proposal would be of net benefit to the community, providing for decreased cost and increased social efficiency associated with waste management and resource recovery within Fairfield LGA and the surrounding area in accordance with legislative requirements. Aggregating and providing for densification of an existing waste and resource recovery facility, the Proposal is the most feasible option and preferred location to ensure necessary and efficient waste and resource recovery is secured into the future, whilst minimising potential negative social and economic impacts that may result from potential negative land values, access and/or community use as a result of waste infrastructure at other locations. The Proposal will also ensure the generation and ongoing facilitation of local employment and expenditure within Fairfield LGA and contribute to the attainment of Waste Management Objectives including the aims and objectives of the WARR Act and POEO Act.



CHAPTER 17 OTHER CONSIDERATIONS

This chapter provides an assessment and discussion of issues not identified as key issues within the SEARs or as of high or medium risk within the ERA as provided in Chapter 7.

17.1 Cultural Heritage (Indigenous and Non-indigenous)

The Site is not identified as being the location of, or in the vicinity of, any items of heritage significance. The Proposal involves primarily internal amendments to an existing building on a well-developed site within an industrial area. A desktop review of relevant State and local heritage registers has been completed to assess the potential impacts of the Proposal upon indigenous and non-indigenous heritage. The results of the desktop assessments are summarised below.

Existing Environment

Indigenous Heritage

A search for heritage items listed in the Aboriginal Heritage Information Management System (AHIMS) was conducted on 6 October 2015 for the Site using a 50m buffer.

The results of the search indicate that no Aboriginal sites or places are recorded in or within 50m of the Site.

Non-Indigenous Heritage

Searches for non-indigenous heritage items listed in the NSW Heritage Register and the Fairfield LEP 2013 were conducted on 6 October 2015 for the Site. The results of the searches for non-indigenous heritage items indicate:

- There are no heritage items or areas listed under the NSW Heritage Register within 50m of the Site.
- There are no heritage items, heritage streetscapes or views listed in the Fairfield LEP 2013 within 50m of the Site.

The nearest heritage items listed in the NSW Heritage Register and the Fairfield LEP 2013 are:

- Bunya Pines, 300 Victoria Street, Wetherill Park
- Phuoc Hue Buddhist Monastery, 363 - 365 Victoria Street, Wetherill Park

The above listed heritage items are located on Victoria Street, approximately 1.5 kilometres southeast of the Site.

Potential Impacts

The Project will not have a direct or indirect impact upon indigenous or non-indigenous heritage items including listed heritage items, conservation areas, streetscapes and/or views. With regard to indigenous heritage, this is confirmed by OEH in responding to the request for SEARs for the Project, which state:

After reviewing the relevant documents, OEH's Greater Sydney Planning Team has concluded that the matter does not contain... Aboriginal cultural heritage issues that require a formal OEH response. We have no need to be further involved in the assessment of the Project.

Mitigation Measures

While the potential impacts of the Proposal upon heritage are considered to be negligible, the following contingency is proposed:

- Should indigenous or non-indigenous cultural material be identified during any works, construction and/or operation will cease in the vicinity of the find and the appropriate representative at OEH will be contacted.



17.2 Flora and Fauna

A desktop review of relevant literature (including the *Fairfield Biodiversity Strategy* (2010) and Fairfield LEP 2013) and database search (including the NSW Office of Environment and Heritage's [Threatened species profile search](#) and NSW BioNet Search (<http://www.bionet.nsw.gov.au/>) of threatened species, populations and communities has been completed to assess the potential impacts of the Proposal upon flora and fauna. The results of the desktop assessment is summarised below. Relevant comments from OEH in responding to the request for SEARs for the Proposal are also provided.

Existing Environment

The Site is identified as not containing threatened species, populations or communities within relevant State or Commonwealth legislation. However, the Commonwealth EPBC Act Protected Matters Search tool identifies there is the potential for protected flora and fauna species occurring within 100m of the Site.

Potential Impacts

The desktop assessment identifies that while there is the potential for flora and fauna species and ecological communities listed under the EPBC Act to be within the vicinity of the Site (predominantly to the west), the Proposal is seeking to make predominantly internal amendments to an existing resource recovery facility within an established industrial estate. Therefore it is considered that the Proposal will have a negligible impact upon flora and fauna. This is supported by OEH in responding to the request for SEARs for the Project, which identify

After reviewing the relevant documents, OEH's Greater Sydney Planning Team has concluded that the matter does not contain Biodiversity, natural hazards and Aboriginal cultural heritage issues that require a formal OEH response. We have no need to be further involved in the assessment of the Project.

Mitigation Measures

While the potential impacts of the Proposal upon fauna and flora species and ecological communities are considered to be low, the following contingency is proposed:

- 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 OEH will be contacted.



CHAPTER 18 CUMULATIVE IMPACTS AND DRAFT COMPIATION OF MITIGATION MEASURES

The Secretary's environmental assessment requirements:

- **Detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes:**
 - **An assessment of the potential impacts of all stages of the development, including any cumulative impacts...**
- **A consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.**

Chapter 18

The Wetherill Park Resource Recovery Facility is located within an existing industrial area and as such, there a number of existing and future activities on the Proposal site and surrounding area that may result in cumulative impacts upon the receiving environment.

Potential cumulative impacts of the Proposal have been considered in relation to the key biophysical, social and economic issues assessed within the EIS. This includes the assessment of cumulative traffic impacts at key intersections off-site, with the relevant traffic impact assessment technical study calculating no change to the LOS of existing intersections affected by the Proposal. In addition, as identified within the respective chapters and technical studies, the assessment of the Proposal against all economic, social and environmental key and non-key issues such as air, noise and water quality meet all relevant legislative, policy and objectives of their respective issues.

The Wetherill Park Resource Recovery Facility is located within an existing industrial area with considerable distance to residential or further sensitive receivers and the Proposal would not require a change to the existing land use. Consequently the potential cumulative impacts associated with augmenting and reconfiguring this significant piece of infrastructure as a result of the Proposal is considered minor. Furthermore as the existing facility provides an important service to domestic and commercial clientele within the local area, should the Proposal not be approved, this service would be restricted into the future and likely result in additional travel associated with haulage of waste to other transfer sites and potentially result in increased illegal dumping of waste in the area as no further alternatives are available.

Despite the respective assessment of key issues identifying the Proposal will have a low cumulative impact upon sensitive or further receivers, the mitigation measures proposed in the respective chapters and consolidated within the draft Compilation of Mitigation Measures have been designed to ameliorate potential impacts associated with individual risks and minimise the potential for overall cumulative impacts. These are identified within Table 18.1. A draft Compilation of Mitigation Measures is provided by SUEZ to consolidate the measures to mitigate the predicted environmental impacts associated with construction and operation of the Proposal. It is assumed the existing conditions of consent required for continued operation will continue in conjunction with those required for the Proposal.

Table 18.1: Draft Compilation of Mitigation Measures by SUEZ

Environmental Issue	Mitigation and consolidation
Waste Management	In order to ensure that the Proposal's waste management operations would have minimal impact on the surrounding environment the updated OEMP and associated procedures would act to mitigate potential impacts.
Soil and Water	The following mitigation and management measures would be adopted for soil:



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Environmental Issue	Mitigation and consolidation
	<ul style="list-style-type: none"> ■ In the event of discovery of PASS, procedures would be developed to mitigate potential impacts on the environment. These procedures would be documented in the CEMP. ■ In the event of discovery of potential soil contamination, procedures would be developed to mitigate potential impacts on the environment. These procedures would be documented in the CEMP. ■ The CEMP would include a range of appropriate erosion and sediment control measures that would be required for implementation, monitoring and maintenance during the construction of the Proposal. ■ The updated OEMP would outline erosion and sediment control measures to be applied during operation of the Proposal. <p>A number of design features and management measures would be used to mitigate the potential for runoff from the Proposal to impact upon surface water.</p> <ul style="list-style-type: none"> ■ Installation of a surface water management system in the new hardstand area. ■ The existing OEMP and accompanying site procedures would be updated where required including update of the Surface Water Management Plan including a monitoring program. <p>Mitigation measures proposed to reduce the impact of leachate include:</p> <ul style="list-style-type: none"> ■ Segregation of leachate from surface water and groundwater; and ■ Continue to monitor leachate discharge to sewer in accordance with Trade Waste Agreement.
Air Quality, Greenhouse Gas and Odour	<p>An Air Quality Management Plan would be developed as a subplan to the CEMP and would contain the following management measures:</p> <ul style="list-style-type: none"> ■ Engines of on-site vehicles and plant would be switched off when not in use. ■ Construction machinery and vehicles on-site would be maintained and serviced according to the manufacturer's specifications. <p>During construction activities requiring exposed surfaces and stockpiling the following controls would be in place:</p> <ul style="list-style-type: none"> ■ Minimise area of exposed surfaces. ■ Water suppression on exposed areas and stockpiles. ■ Minimise amount of stockpiled material. <p>During on-site hauling activities, the following controls would be in place:</p> <ul style="list-style-type: none"> ■ Watering of unsealed haul roads. ■ Sealed haul roads to be cleaned regularly. ■ Restrict vehicle traffic to designated routes. ■ Imposing speed limits. ■ Covering vehicle loads when transporting material off-site.



Environmental Issue	Mitigation and consolidation
	<p>The existing Odour and Dust Management Plans would be updated as part of the OEMP update. A number of control measures are proposed to ensure that the potential for any odour and dust impacts off-site are minimal. These controls include:</p> <ul style="list-style-type: none"> ■ Continuing existing operation of the dust and odour suppression system; ■ No waste will be left on-site for more than 24 hour; ■ Waste delivery trucks entering the terminal would be required to be fully enclosed or covered; ■ Putrescible and non-putrescible waste stream would be kept separate; ■ The amount of putrescible waste on-site within the terminal at any time would be minimised as much as reasonably practicable; ■ Good dust management procedures would be implemented within and outside the terminal building including regular sweeping and washing down, as required; ■ Traffic management procedures to co-ordinate the delivery schedule and avoid a queue of the incoming or outgoing trucks for extended periods of time; ■ Spill management procedures to include immediate cleaning up of any spill/leakage from incoming and outgoing trucks; ■ Maintaining an odour complaint logbook and in the event of a complaint immediately investigate any unusual odour sources (including spill or leakage in the traffic areas) within the site boundary and take appropriate action as required; and ■ Reviewing operational practices and management plans regularly and training of relevant staff regarding waste handling and transfer and odour and dust suppression. <p>The 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:</p> <ul style="list-style-type: none"> ■ The contractor will limit idling time of plant and equipment whilst on-site; ■ The contractor will make certain that the only lighting left on overnight around the Site office will be security or emergency/access lighting; and ■ Earthmoving equipment and on-site vehicles will be fitted with exhaust controls in accordance with the <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i>. <p>The following energy efficient features have been identified as feasible on-site measures to reduce the Proposal's most significant sources of emissions.</p> <ul style="list-style-type: none"> ■ All trucks leaving the Site carrying waste will be filled to the maximum reasonably practicable, depending on the truck size, to reduce the number of traffic movements required; ■ Hybrid material handling equipment to be used; ■ EURO 5 standard for trucks;



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Environmental Issue	Mitigation and consolidation
	<ul style="list-style-type: none"> ■ Large trailers and therefore less transfer trips; ■ 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; and ■ Energy efficient lighting: LED lights will be installed and directed on-site.
Traffic	<p>Traffic management measures associated with the Proposal on the Site are proposed to be provided during construction and operation of the Proposal. These include:</p> <ul style="list-style-type: none"> ■ Provision of 21 car parking spaces and 12 truck and trailer parking spaces on-site including one accessible parking space. ■ Moving the existing stop line at the weighbridge forward by 3 m. ■ Separation of commercial and domestic waste streams through appropriate signage and direction by staff. ■ A Construction Traffic Management Plan will be developed as part of the CEMP for the Proposal. This would include a traffic management plan identifying vehicle movements to and from the Site, internal access, interactions with general public, parking and access requirements for personnel and safety signage and training of personnel (as appropriate) in traffic management in accordance with relevant requirements and guidelines of the RMS and Council in terms of road safety and network efficiency.
Noise and Vibration	<p>The following measure have been or will be implemented at the site to mitigate noise:</p> <ul style="list-style-type: none"> ■ Most equipment is replaced after 4 years; ■ Equipment regularly maintained and serviced; ■ Hybrid material handling equipment; and ■ EURO 5 standard for trucks.
Visual Amenity	<p>The following measure have been or will be implemented at the site to mitigate visual impacts at the site:</p> <ul style="list-style-type: none"> ■ Maintaining and supplementing the existing screening on-site.
Hazards and Risks	<ul style="list-style-type: none"> ■ The management standards and guidelines utilised for existing operations at Wetherill Park Resource Recovery Facility will continue to be applied on the Site and will be built upon and incorporated into the updated OEMP along with the mitigation measures identified.
Stakeholder	<p>Stakeholder engagement activities would continue to be developed and facilitate the engagement process as part of construction and operation management measures. These may include:</p> <ul style="list-style-type: none"> ■ Telephone line to communicate issues ■ Complaints management process ■ Updates of the SUEZ website ■ Clear signage at construction-sites during construction.



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Environmental Issue	Mitigation and consolidation
	<ul style="list-style-type: none">■ Ongoing review and refinement of construction and operation impact mitigation measures
Other Issues	<ul style="list-style-type: none">■ Should indigenous or non-indigenous cultural material be identified during any works, construction and/or operation will cease in the vicinity of the find and the appropriate representative at OEH will be contacted.■ 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 OEH will be contacted.



CHAPTER 19 JUSTIFICATION AND CONCLUSIONS

This chapter contributes and reiterates the justification of the Proposal in addition to providing the conclusion to the EIS. As such, it addresses further issues associated with justification not predominantly addressed in Chapter 3 or specifically elsewhere in the EIS.

<i>The Secretary's environmental assessment requirements:</i>	Chapters 3 and 19
■ <i>Justification for the proposed development;</i>	

19.1 Principles of Ecologically Sustainable Development

Precautionary principle

The precautionary principle necessitates consideration of the risks of serious or irreversible environmental damage associated with a development. The Proposal has been assessed with the purpose of reducing the risk of serious and permanent impacts on the environment, including an evaluation of the risk-weighted consequences of alternatives and options regarding the Proposal.

A number of alternatives for the Proposal have been considered, including an internal assessment of their risks and consequences (see Chapter 3). These alternatives include a review of the need for the Proposal and the potential sites within the area to find the most suitable site. It is considered that the Proposal is required as with Eastern Creek RRP closing in 2017, there is a high risk that the remaining waste infrastructure in the Greater Western Sydney area would not have the capability to meet the existing and future waste capacity needs associated with putrescible waste acceptance. To address this issue and further needs of the Proposal (as addressed in Chapter 3) the Proposal Site is the most suitable due to:

- Strategic location associated with the Site being located within 5 kilometres from Eastern Creek RRP reducing the need for time and transportation resources associated with other existing waste facility options. The site is also appropriately located within SUEZ's transfer station network to facilitate transfer to existing resource recovery or disposal facilities.
- Existing design performance – the facility is purpose built with appropriate zoning, size, existing infrastructure and capacity to accept additional putrescible waste. The Site design enables efficient and safe waste loading and transfer compared to rear loading operations and is not proposed to be altered as part of the Proposal.
- Existing environmental performance – the Wetherill Park Resource Recovery Facility has a sound environmental record, with no records of odour or other complaints and non-compliances since 2011 and is considered to operate efficiently and effectively in accordance with existing approval documentation.

Specialist technical studies were completed to address key technical issues and assist with the evaluation and development of the Proposal. These include:

- Waste Management
- Air Quality, Greenhouse Gas and Odour
- Traffic and Transport
- Noise and Vibration
- Soil and Water
- Hazards and Risk

Where a level of uncertainty was identified in the data used for the assessments, a conservative worst-case scenario analysis was undertaken. The technical studies provided in the appendices of the EIS did not



identify any issues that may cause serious and irreversible environmental damage as a result of the Proposal. While the Proposal is predominantly intending an increase in putrescible waste acceptance at the Site, it also propose further measures associated with improving operations such as the separation of commercial and small vehicle drop-off areas. In addition measures proposed to be implemented to continue to protect the environment at the Site, include:

- The continued use of proven operating systems and pollution control structures.
- Ongoing training of personnel.
- Environmental auditing and environmental monitoring.
- The development of contingency plans in the event that an unexpected situation, that may negatively impact the environment, arises.

Inter-generational equity

The principle of inter-generational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The Proposal is for ongoing operation of the Wetherill Park Resource Recovery Facility, which is an existing waste facility within an industrial area that does not currently support a significant amount of natural assets, containing limited native vegetation cover and minimal presence of native fauna.

The Proposal would secure an important waste infrastructure need, thereby facilitating future developments within Fairfield LGA, the Western Sydney Area and the wider Sydney metropolitan area. Wetherill Park Resource Recovery Facility and SUEZ's associated transfer station network would secure waste requirements and have a working life that would extend to future generations, providing benefits for a number of generations without relying on future generations to deal with waste disposal problems. Should the Proposal not proceed, the principle of intergenerational equity may be compromised, as future generations could inherit a higher cost for disposal and processing of waste in addition to the increased likelihood of illegal dumping. Through the Proposal the Wetherill Park Resource Recovery Facility would continue to meet the demands for waste treatment for local government and commercial industries now and into the future, supporting source separation, and enabling resource recovery targets to be achieved.

In addition, the Proposal would provide for the ongoing development of management and mitigation of issues on-site as to be identified and addressed through the CEMP and OEMP. Site management as identified within these management plans would be carried out to ensure that best practice methods are being employed wherever possible that facilitate the health, diversity and productivity of the environment are maintained or enhanced for future generations. Refer to Chapter 18 that provides a consolidated table of mitigation and management measures that SUEZ is committed to providing for the Site.

Conservation of biological diversity and ecological integrity

This principle provides that biological diversity and ecological integrity should be fundamentally considered when assessing the impacts of a proposal. As identified within the SEARs, OEH have identified that the Proposal will have no impact upon biodiversity, natural hazards and/or Aboriginal Cultural Heritage. The Site has been previously extensively disturbed, and is located within an industrial precinct. No threatened flora or fauna listed under the EPBC Act or TSC Act have been recorded within the ecological study area. The proposal is not considered to significantly impact on biological diversity or ecological integrity.

Improved valuation, pricing and incentive mechanisms

This principle requires that costs to the environment are incorporated or internalised in terms of the overall project costs, ensuring that decision making takes into account the environmental impacts. This EIS has identified that the environmental, social and economic costs associated with the 'do nothing' or construction of a new facility are greater than the ongoing and more efficient use of an existing resource recovery facility. The EIS further provides for mitigation measures to ameliorate potential environmental impacts that may occur as a result of the Proposal. The implementation of mitigation and management measures represents a



capital and or operational cost for the Proposal, acting as a valuation in economic terms of environmental resources.

19.2 Justification

SUEZ is Australia's leading specialist in resource recovery, recycling and waste management and has a network of 10 transfer stations within the Sydney metropolitan area in addition to associated ARRT, MRF and organic resource recovery facilities. The Site is an essential part of this network and is the closest SUEZ owned transfer facility to address the closure of Eastern Creek RRP in the near future, being strategically located between the Lucas Heights RRP and Eastern Creek RRP and providing processing and transfer facilities to support the operation of these sites.

The Proposal is essentially seeking to gain approval for Wetherill Park Resource Recovery Facility to utilise its existing operational capacity to accept and process additional putrescible waste. The Proposal also seeks to optimise the ancillary infrastructure and internal layout on-site to improve safety, increase source separation and facilitate efficient waste management services to the wider area.

The Proposal is the most suitable alternative to meet the Proposal objectives of:

- Facilitating future waste transfer needs of Greater Western Sydney.
- Securing future capacity for putrescible waste transfer and temporary storage to complement other resource recovery management options and landfilling in the Greater Western Sydney region.
- Facilitating the safety and operation of the current facility for future operators and customers.

The Proposal will meet these objectives as follows:

- (Objective 1 and 2) The Wetherill Park Resource Recovery Facility will address the waste and disposal capacity need within western and metropolitan Sydney, which will be further constrained by the closing of Eastern Creek RRP in 2017. It will do this through the Proposal increasing the putrescible waste capacity at the Site to enable the transfer of waste currently received at Eastern Creek RRP to Lucas Heights or other resource recovery or disposal facilities through SUEZ's existing transfer station network. In addition to the need for management of the waste created by the closing of Eastern Creek RRP, the Proposal will provide Wetherill Park Resource Recovery Facility with the waste for projected population growth while meeting relevant legislation and policy drivers (refer to chapter 3 Proposal Need for further details).
- To facilitate the ongoing safety and operation of the current facility for future operators and customers (Objective 3), it is proposed to reconfigure on-site traffic and parking to separate commercial and domestic drop-off areas. In addition the existing domestic and commercial waste vehicle access will be reconfigured to improve materials handling and accessibility, safety and operation of the domestic waste facility.

The Proposal will also ensure the ongoing operation of Wetherill Park Resource Recovery Facility, which incorporates the recovery of recyclable materials from putrescible, non-putrescible and hazardous waste through sorting and transferring through SUEZ's network of waste facilities. This assists in the achievement of the NSW Government's landfill diversion targets, conserving landfill space, and returning valuable materials to the productive economy.

The location of Wetherill Park Resource Recovery Facility provides the best location of existing waste facilities to reduce long haul transport of waste. The Site is located within 5 kilometres from Eastern Creek RRP and appropriately located within SUEZ's transfer station network.

The Proposal will also provide a benefit in the form of increased efficient utilisation of an existing waste management facility.

An environmental impact assessment of the Proposal has been completed and presented within this EIS. SUEZ is seeking to develop the Wetherill Park Resource Recovery Facility to provide sustainable waste management services in managing residual putrescible waste in the Greater Western Sydney area.



The Proposal has been shown to be consistent with the relevant local and State government planning instruments with no significant environmental impacts having been identified during the preparation of the EIS. The impacts identified for the Proposal are considered to meet all relevant assessment criteria and will be further mitigated through the implementation of the management measures committed to by SUEZ as identified in Chapter 18.

Construction of the Proposal would result in minor short-term impacts to the local environment. These temporary impacts would generally be confined to the Site and would have a minor impact upon existing operations with the proposed construction management measures. To mitigate and manage potential impacts during construction, a CEMP would be developed during the detailed design phase, incorporating mitigation and management proposed in this EIS. Assuming the CEMP is successfully implemented, no significant environmental impacts during the construction phase are predicted.

SUEZ has a unified, certified and audited Health Safety Environment and Quality Management System that is utilised for the existing operations on the Site and would continue to be utilised for the Proposal. The ongoing implementation of SUEZ's operating procedures and maintenance routines would minimise the potential for incidents occurring during operation, and will be applied to the operating conditions for the Proposal. To support and supplement this system, an updated OEMP would be developed for the Proposal and the Site, in accordance with SUEZ's management system and the mitigation measures as outlined in this EIS. The updated OEMP would follow procedures that have been developed for the Site and SUEZ's wider transfer station network, which is Sydney's largest waste transfer network. With the successful development and implementation of the OEMP for the Proposal, no significant environmental impacts are predicted during operation.

19.3 Conclusion

The Proposal has been assessed within this EIS in accordance with the State Significant Development process pursuant to Part 4 of the EP&A Act. The potential environmental, social and economic impacts of the Proposal have been identified and assessed as part of this EIS addressing the SEARs for the Proposal (SSD 7267). The assessment has concluded that no significant environmental impacts have been identified as a result of the Proposal and that any potential affects can be satisfactorily mitigated and managed through a range of measures that have been identified within this document. The Proposal is also consistent with the priorities and targets adopted in relevant Government legislation, policies and strategies.

The Proposal will provide significant benefit in terms of addressing and securing the need for waste capacity in the local, Western Sydney, and Sydney metropolitan area, in addition to enabling efficient, safe and productive use of waste resources. The EIS considers the Proposal is in the public interest for a variety of issues and is recommended for approval.



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