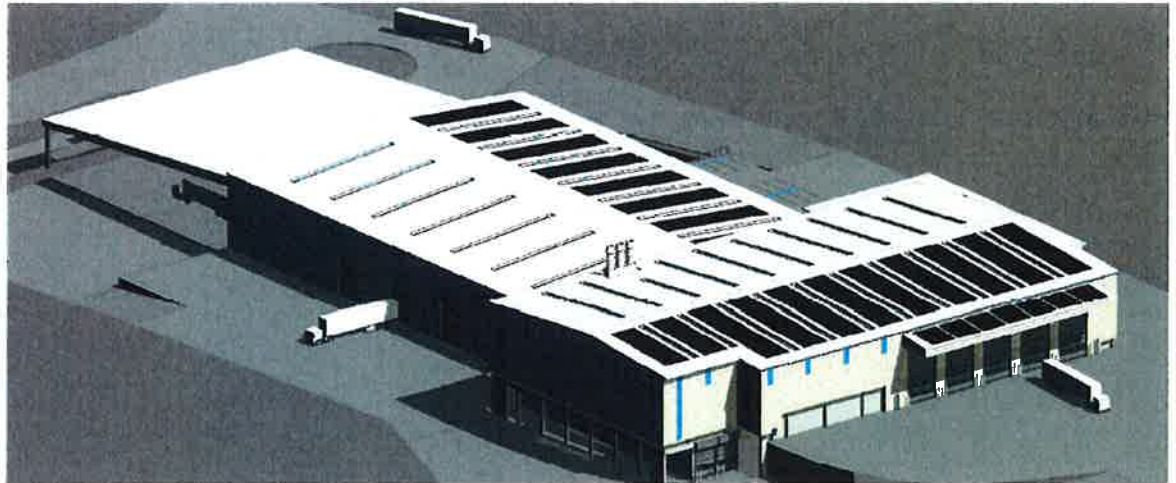




**Planning &
Environment**

***ENVIRONMENTAL ASSESSMENT
REPORT***

***Erskine Park Waste and Resource
Management Facility (SSD 7075)***



Environmental Assessment Report
Section 89H of the
Environmental Planning and Assessment Act 1979

August 2016

Cover Photograph: 3D montage of the site

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ABBREVIATIONS AND DEFINITIONS

Applicant	Cleanaway Pty Ltd
AS	Australian Standard
BCA	Building Code of Australia
C&I	Commercial and Industrial Waste
CIV	Capital Investment Value
CEMP	Construction Environmental Management Plan
Commission	Planning Assessment Commission
Construction	The demolition of buildings or works, carrying out of works, including earthworks, erection of buildings and other infrastructure covered by this consent
Council	Penrith City Council
DA	Development Application
Dangerous Goods	As defined by the Australian Dangerous Goods Code 7th Edition (Australian Government, 2010)
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The Development as described in the EIS and RTS and approved by this Development consent for the construction and operation of the Stage 1 Waste Transfer Station
EIS	Environmental Impact Statement titled "Staged Development Application, Environmental Impact Statement, Erskine Park Resource Management Facility prepared by SLR Consulting Australia Pty Ltd dated October 2015
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
Infrastructure SEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
Night	The period from 6pm to 7am on Monday to Saturday and 6pm to 8am on Sundays and Public Holidays (includes the evening period)
Minister	Minister for Planning
MSW	Municipal Solid Waste
RMS	Roads and Maritime Services
RRF	Resource Recovery Facility
RTS	Response to Submissions titled 'Erskine Park Resource Management Facility, Response to Submissions prepared by SLR Consulting Australia Pty Ltd dated 24 February 2016'
Secretary	Secretary of the Department of Planning and Environment
SEARs	Secretary's Environmental Assessment Requirements, previously known as Director-General's Environmental Assessment Requirements
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
Stage 1	Stage 1 includes: <ul style="list-style-type: none"> a) demolition of existing structures; b) bulk earthworks; c) construction of infrastructure including hardstand areas, stormwater, car parks, weighbridges and sealed roads; d) operation of a Waste Transfer Station with a processing capacity of up to 300,000 tpa including an air pollution control system; e) a two storey office building and amenities to service the Waste Transfer Station; and f) construction of ancillary components including security fencing, security gates, rain water harvesting, fire suppression system, signage, landscaping and services.
Stage 2	Resource Recovery Facility designed to process 150,000 tpa of recyclable material from the Waste Transfer Station (Stage 1)
TfNSW	Transport for NSW
tpa	Tonnes per annum
WARR	Waste Avoidance and Resource Recovery Strategy
Waste	as defined in the <i>Protection of Environment Operations Act 1997</i>
WRMF	Waste Resource Management Facility (Stages 1 and 2)
WTS	Waste Transfer Station

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EXECUTIVE SUMMARY

Cleanaway Pty Ltd (the Applicant) has lodged a staged development application (DA) for a Waste and Resource Management Facility (WRMF) in the Penrith Local Government Area (LGA). The staged DA includes:

- a concept proposal for a Waste and Resource Management Facility (WRMF) which includes two stages, a Waste Transfer Station (WTS) (Stage 1) and a Resource Recovery Facility (RRF) (Stage 2) (RRF); and
- Stage 1 works for demolition of existing structures, construction and operation of the WTS.

The site and the adjacent existing Erskine Park Landfill are owned by the Applicant. The site currently provides office support for the existing landfill, and the landfill is expected to close in the next two years.

The proposal includes the demolition of existing structures on-site, the construction of a steel framed and clad WTS, office and amenities building, weighbridges, underground on-site stormwater detention, landscaping, truck and car parking and associated infrastructure.

The WRMF will have a maximum processing capacity of 300,000 tonnes per annum (tpa) of commercial and industrial waste (C&I) and municipal solid waste (MSW). The WTS would be constructed first, followed by the RRF (referred to as Stage 2) which will be subject to a further DA. The WTS would receive and consolidate waste which would then be transported off-site to an appropriately licensed waste disposal facility. All waste received would enter the WTS for sorting and consolidation, with selected recyclables entering the RRF for processing once it becomes operational. The WTS would be designed to process up to 300,000 tpa of waste with the RRF recycling up to 150,000 tpa of this waste into saleable commodities. The waste would primarily be sourced from Sydney's western suburbs and would generally include food, paper, cardboard, plastics, metals and glass waste.

The proposal is consistent with the NSW Government's direction in achieving the targets in the *Waste Avoidance and Resource Recovery Strategy 2014-2021*. In particular, the proposal would assist in the recovery of both the C&I and MSW.

The WTS has a capital investment value of approximately \$21.5 million, with the overall concept proposal having an investment value of \$50 million. The WTS would employ 10 people during construction and up to 130 people during operation. The RRF would provide an additional 20 construction and 20 operational jobs. The Applicant seeks to operate the WTS, 24 hours per day, seven days per week.

The proposal is classified as State significant development (SSD) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves:

- development for the purposes of a waste transfer station in the metropolitan area of Sydney that handles more than 100,000 tpa of waste; and
- a resource recovery facility that handles more than 100,000 tpa of waste.

Therefore, the development meets the criteria in clause 23(2) of Schedule 1 in *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Consequently, the Minister for Planning is the consent authority for the proposed development. However, in accordance with the Minister's delegation dated 14 September 2011, the staged DA will be determined by the NSW Planning Assessment Commission (the Commission) as more than 25 objections were received from the general public.

The Department exhibited the Environmental Impact Statement (EIS) from 4 November 2015 until 4 December 2015, and received a total of 351 submissions including seven submissions from public authorities (including Penrith City Council (Council)) and 344 submissions from the general public. No public authority submissions raised objections, however a number of the submissions raised issues to be addressed, particularly in relation to potential odour impacts. Of the 344 general public submissions

received, all objected to the proposal with the key community concerns being odour, air quality, traffic and noise impacts.

Additional information on these issues was provided by the Applicant in its Response to Submissions (RTS) report, which resolved the Environmental Protection Authority (EPA) issues regarding odour. In addition, the Department consulted with the EPA, Council and the Applicant on the draft recommended conditions of consent. The public authorities have accepted the RTS and consider that the development should be approved subject to a number of recommended conditions.

The Department has considered the EIS, submissions received by agencies and the general public, and the Applicant's RTS in accordance with all relevant matters under Section 79C of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development. Key issues considered as part of the Department's assessment included the WRMF concept proposal and site suitability, odour and air quality, traffic and noise.

The Department acknowledges the history of odour complaints in the Western Sydney area but also notes the findings of the EPA's regional study that did not identify the Applicant's adjacent non-putrescible landfill as a source of odour. The EPA initially raised concern with the anticipated odour impacts and in response, the Applicant conducted further odour modelling and proposed an air pollution control system that could be scaled up should odour become an issue. As the facility is fully enclosed, it will be kept under negative pressure and includes a scalable air pollution control system to manage odour, both the EPA and the Department are satisfied the odour impacts at the site can be adequately managed.

Overall, the Department's assessment concludes:

- conceptually, the location of the WRMF is considered beneficial as it is located close to the M4 and M7 Motorways and has sufficient buffer distance from sensitive receivers;
- the RRF will be subject to a separate DA and Secretary Environmental Assessment Requirements (SEARs) to ensure any cumulative impacts of the proposal are assessed;
- the proposal is located within the Western Sydney Employment Area (WSEA) which has sufficient infrastructure capacity to cope with the proposed development;
- the Applicant has already paid contributions towards transport infrastructure and services for the region;
- the WTS will be fully enclosed, kept under negative pressure and include an air pollution control system to ensure odour impacts are adequately managed;
- the facility would meet relevant air and odour criteria at sensitive receivers subject to air pollution control devices being installed;
- the facility would meet the relevant noise criteria at sensitive receivers;
- traffic generated by the facility can be accommodated on the local and regional road network without any significant impact on safety or level of service;
- the facility would provide a range of environmental and economic benefits for the region, through resource recovery and the provision of long term operational jobs; and
- the proposal is consistent with the strategic direction for waste management in NSW.

Given the above, the Department's assessment concludes the proposal would be in the public interest, and recommends approval subject to conditions.

1. BACKGROUND

1.1 The Department's Assessment

This report details the Department's assessment of the State significant development (SSD 7075) for the Erskine Park Waste and Resource Management Facility (WRMF). The development involves a staged development application (DA) consisting of a concept proposal for the WRMF (Stages 1 and 2) and construction and operation of the Stage 1 Waste Transfer Station (WTS). The Department's assessment considers all documentation submitted by the Applicant, including the Environmental Impact Statement (EIS) and Response to Submissions (RTS), and submissions received from government authorities, stakeholders and the public. The Department's assessment also considers the legislation and planning instruments relevant to the site and the development.

This report describes the proposed development, surrounding environment, relevant strategic and statutory planning matters and issues raised in submissions. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts during construction and operation. The Department's assessment of the WRMF has concluded that the development is in the public interest and should be approved, subject to conditions.

1.2 Project Background

Cleanaway Pty Ltd (the Applicant) have been operating in the waste industry since 1987 and operate various waste facilities throughout Australia. The site is currently owned and operated by the Applicant to support its existing adjacent Erskine Park landfill. The adjacent landfill was opened in 1994 and involved the rehabilitation of a former quarry. The landfill currently accepts commercial and industrial waste (C&I), general solid waste (non-putrescible), low level contaminated soils, construction and demolition waste, and clean fill. Landfilling is expected to cease in approximately two years. As such, the Applicant has lodged a staged DA for a WRMF at the site with a maximum processing capacity of 300,000 tpa.

The staged DA consists of:

- a concept proposal for the WRMF which includes:
 - a WTS (Stage 1) capable of processing up to 300,000 tpa of C&I and Municipal Solid Waste (MSW);
 - a Resource Recovery Facility (RRF) (Stage 2) that would be designed to process up to 150,000 tpa of recyclable material from the WTS (Stage 1) into saleable commodities; and
- Stage 1 works for demolition of existing structures, construction and operation of the WTS.

The waste received at the WRMF would include waste generated from households, offices, retail outlets, restaurants and factories and would include food waste, paper, cardboard, plastics, metals and glass. The WTS would receive and consolidate waste which would then be transported off-site for disposal at a licensed landfill. The RRF is a subset of the WTS and will be subject to a separate DA once the materials to be recycled are known. Once the RRF is operational, waste received at the site would enter the WTS for sorting and selected recyclables (up to 150,000 tpa) would be transferred to the RRF for processing into saleable commodities. The maximum processing capacity of the WRMF for all wastes will be 300,000 tpa.

The adjacent landfill operates a leachate treatment system. The leachate treatment system is proposed to be used by the WRMF to treat leachate. The proposed WRMF would not interact with the existing landfill operations other than to maintain access to the landfill and existing leachate treatment system.

The subject site is approximately 3 hectares (ha) in area and is located approximately 11 kilometres (km) south-east of Penrith. The site is located within the Western Sydney Employment Area (WSEA) and is zoned IN1 General Industrial. The site is located at 85-87 Quarry Road, Erskine Park within the Penrith LGA.

1.3 Site Description

The site is legally known as Lot 1 in DP 1140063. The current infrastructure on site includes office buildings, car parks, sheds, laydown areas, a weighbridge, sealed road and some vegetation. The majority of this infrastructure is proposed to be removed as part of Stage 1. The topography of the site is relatively flat, but has a gentle slope to the west with an elevation of approximately 60 metres (m) Australian Height Datum (AHD). Vehicular access to the site is provided via Quarry Road, which is a two lane bitumen sealed road which services the Erskine Park Industrial Estate. The site is located in close proximity to the M4 and M7 Motorways and is shown in **Figure 1** and **2**.

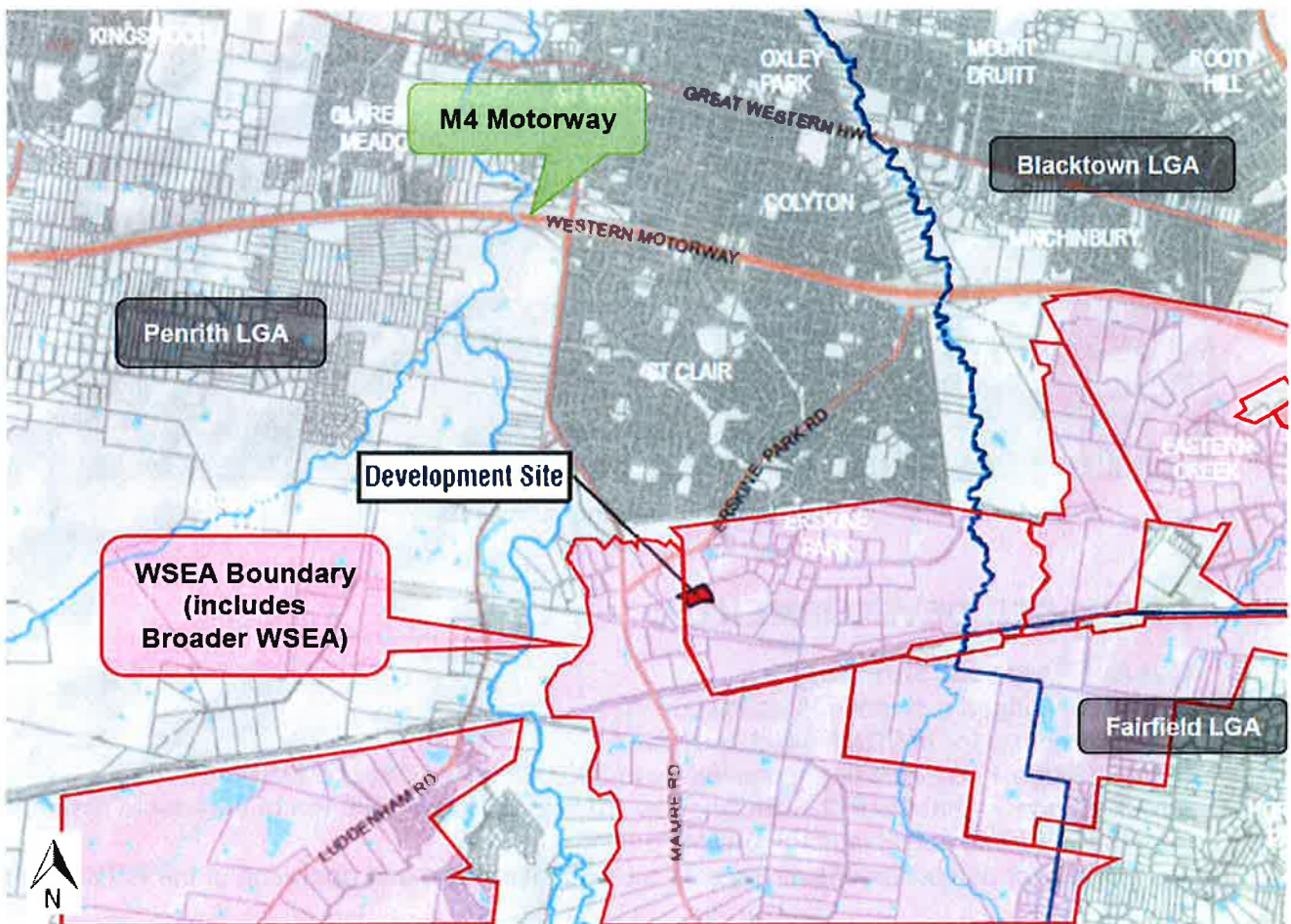


Figure 1: Site Location

1.4 Surrounding Land Uses

The site is located within an existing industrial precinct known as the Erskine Park Industrial Estate which is located within the WSEA (see **Figure 1**), and as such the surrounding land uses are primarily industrial in nature. Industrial uses surrounding the site include manufacturing facilities, warehouses and dairy processing. There is one isolated resident located within the Erskine Park Industrial Estate, approximately 1.3 km east of the site. The nearest residential dwellings are located at St Clair approximately 740 m to the north of the site. A new childcare facility has recently been built on Mamre Road approximately 670 m to the west. An existing leachate treatment plant owned by the Applicant is located north-east of the site. These components are identified in **Figure 2** below.

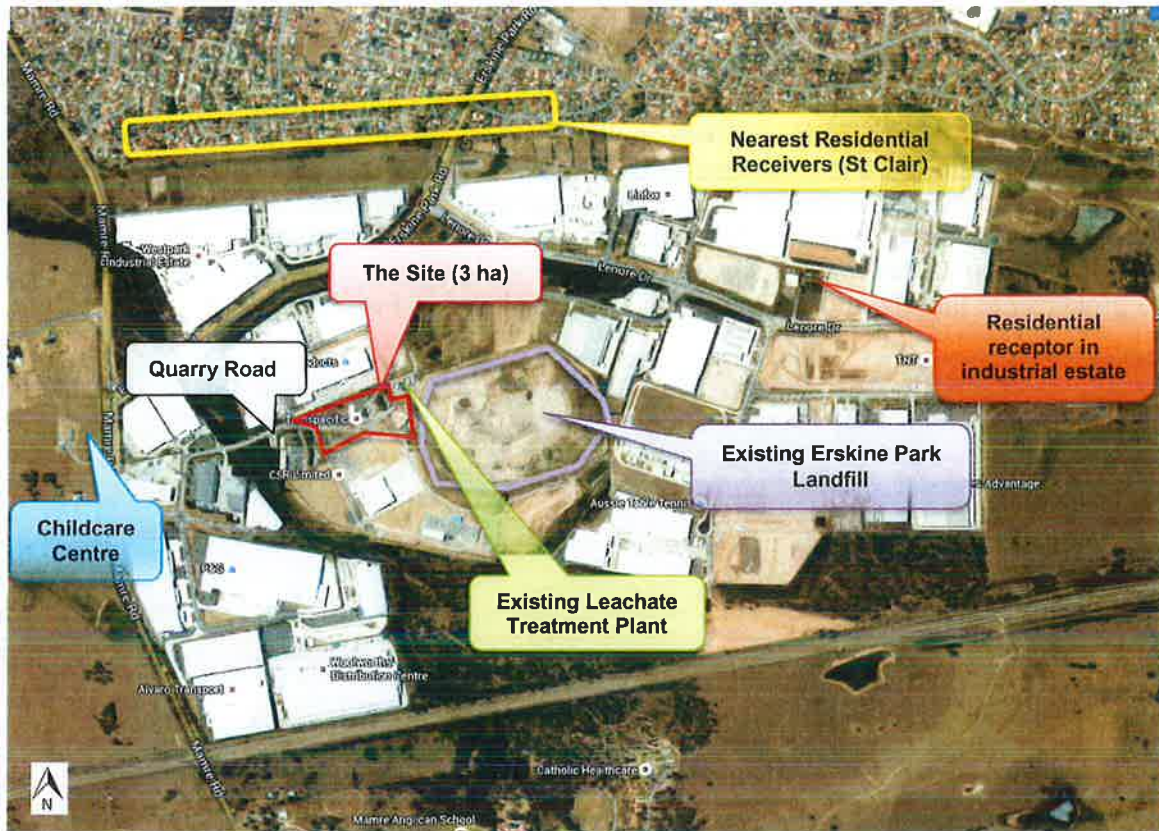


Figure 2: The site and surrounds

2. PROPOSED DEVELOPMENT

2.1 Overall Proposal Summary

The Applicant has lodged a staged DA consisting of:

- a concept proposal for a WRMF which includes:
 - a WTS (Stage 1) capable of processing up to 300,000 tpa of C&I and MSW;
 - a RRF (Stage 2) that would be designed to process up to 150,000 tpa of recyclable material from the WTS into saleable commodities; and
- Stage 1 works for demolition of existing structures, construction and operation of the WTS.

The maximum processing capacity of the WRMF at any time will be 300,000 tpa of C&I and MSW. A summary of the staged development is provided in **Table 1**, further details are provided in section 2.2 and 2.3.

Table 1: Overall Proposal Summary

Aspect	Description
Waste Source	<ul style="list-style-type: none"> • C&I and MSW including waste generated from households, offices, retail outlets, restaurants and factories. The waste would generally include food waste, paper and cardboard, plastics, metals and glass. • WTS (Stage 1): putrescible and non-putrescible. • RRF (Stage 2): non-putrescible from the WTS.
Capital Investment Value	<ul style="list-style-type: none"> • \$50 million for the WRMF; and • \$21.5 million for the Stage 1 WTS works.
Employment	Stage 1 WTS works only: <ul style="list-style-type: none"> • up to 10 construction jobs; and • 130 full time operational jobs (120 drivers and machine operators and 10 employees in the site office).

Aspect	Description
	Stage 2 RRF: <ul style="list-style-type: none"> • up to 20 construction jobs; and • 20 full time operational jobs.
Building Envelope	Concept proposal: <ul style="list-style-type: none"> • 11,780 m² (Stages 1 and 2) with a maximum height of 14 m plus vents. Stage 1 WTS works only: <ul style="list-style-type: none"> • 5,412 m² with a maximum building height of 14 m plus vents.
Site Size	<ul style="list-style-type: none"> • 3 ha

2.2 Concept Proposal WRMF Description

Initially, the WTS would be constructed and operated with a design capacity up to 300,000 tpa. The majority of waste received at the transfer station will be consolidated and transferred into larger vehicles and transported off-site to a licensed facility such as a landfill for disposal. Further details on Stage 1 are provided in section 2.3.

The RRF will recycle non-putrescible waste from the WTS. The construction and operation of the RRF will be subject to a separate DA. Once the RRF is operational, waste received at the site would enter the WTS for sorting before being transferred to the RRF. A conveyer and/or hopper would transfer selected recyclable material from the WTS to the RRF. The Applicant would continue to transport residual waste from the WTS to a licenced facility. The exact quantities of each waste stream to be recycled are not yet known but will be defined during the detailed design for the RRF. The RRF will adjoin the WTS and will be fully enclosed. The majority of the site preparation works for construction of the RRF would have been undertaken as part of the construction of the WTS. **Figures 3 and 4** shows how stages 1 and 2 interact.

The Applicant has assessed the environmental impacts of the proposed site based on a 300,000 tpa putrescible waste throughput which is considered the worst case scenario. The Department’s assessment of the key issues is provided in Section 5.

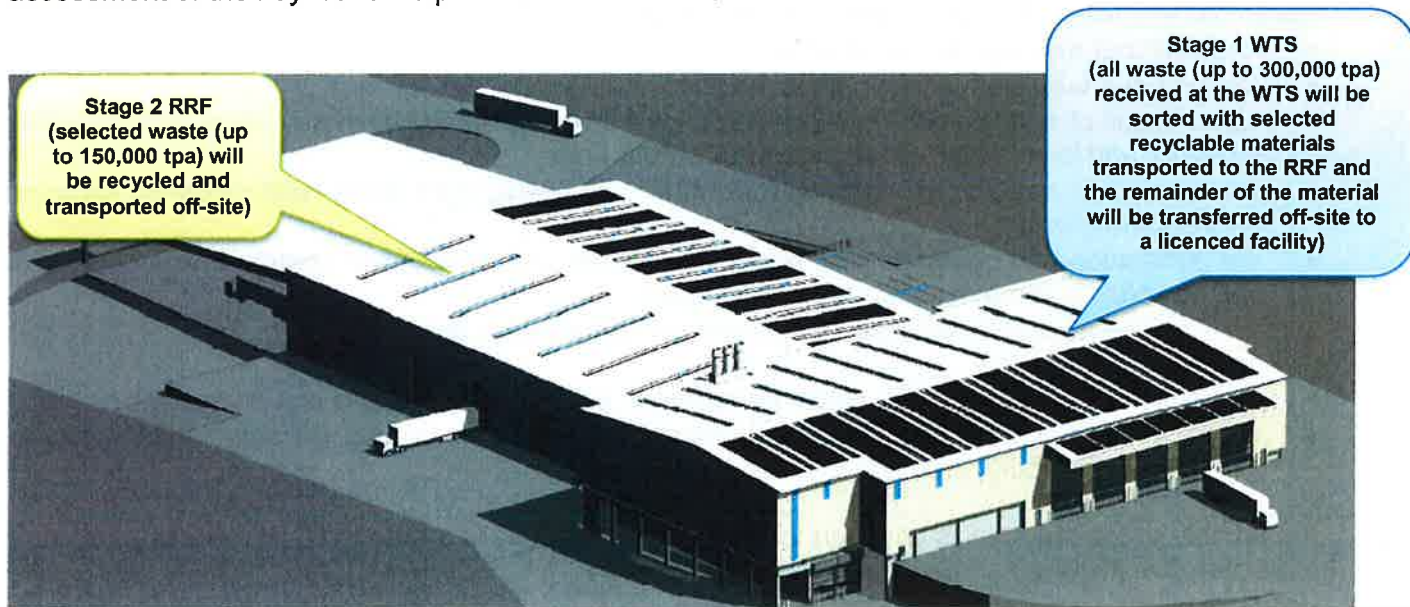


Figure 3: 3D Image of WRMF

(**Note:** the air vents will be located on the northern side of the WTS as per Figure 4 and 5 below)

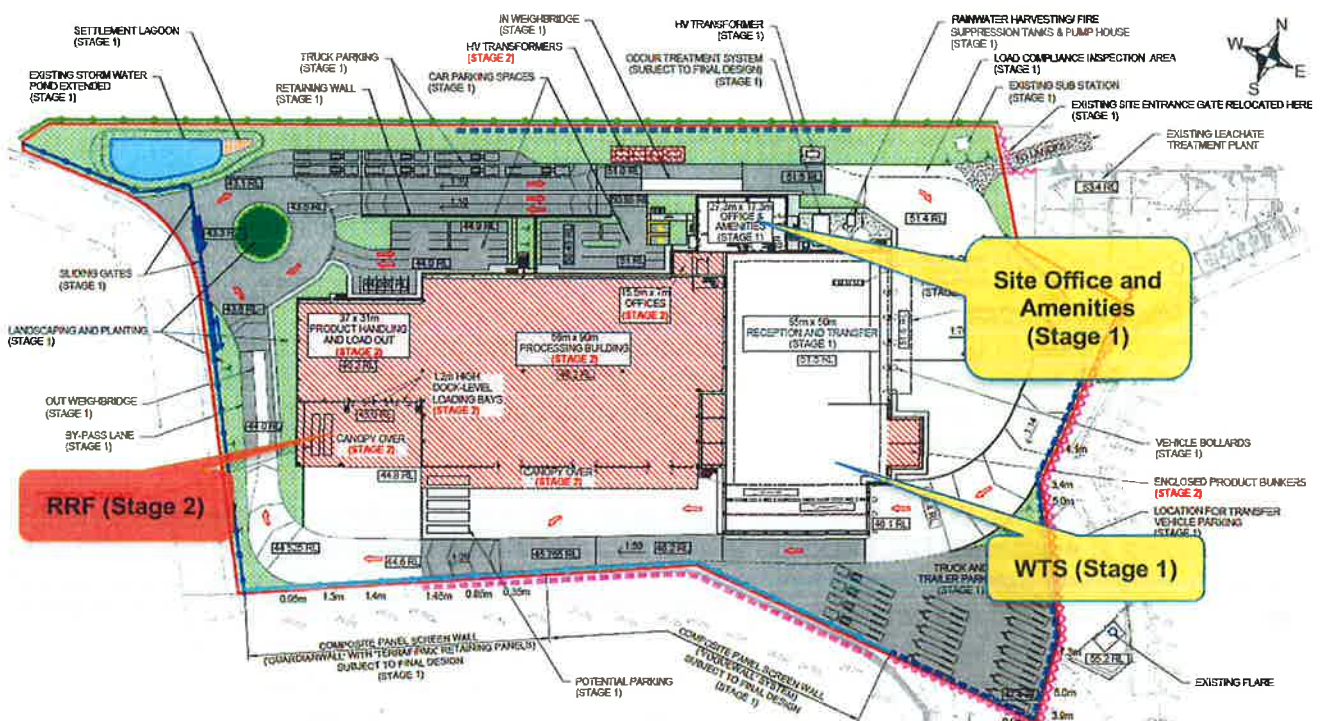


Figure 4: WRMF Concept Proposal Stages 1 and 2

2.3 Stage 1 WTS Description

The proposal involves the construction and operation of a WTS capable of processing up to 300,000 tpa of C&I and MSW. The development would involve:

- demolition of existing structures on-site;
- clearing and bulk earth works across the site;
- construction of a steel framed and clad WTS with an associated two storey office and amenities structure and lower level transfer vehicle load out area;
- the installation and operation of five 6 m wide rapid acting roller doors (with proximity sensors) for truck entry/exits;
- the installation and operation of a ventilation system and air pollution control device such as a wet scrubber to remove gaseous contaminants;
- construction of associated infrastructure including hardstand areas, car parks, weighbridges and sealed roads;
- installation of red/green traffic lights on the site to control access in and around the WTS; and
- construction of security fencing, security gates, rain water harvesting, fire suppression system, signage, landscaping, drainage and services.

A summary of the proposal is provided in **Table 2**. Further details on the WTS process are provided in Section 2.4. **Figure 5** shows the operation of the WTS.

Table 2: Details of Stage 1 WTS

Aspect	Description
Overview	<ul style="list-style-type: none"> construction and operation of a WTS capable of processing up to 300,000 tpa of C&I waste and MSW.
Waste Processing	<ul style="list-style-type: none"> annual capacity of 300,000 tpa of C&I and MSW.
On-site Building Work, Design and Building Envelope	<ul style="list-style-type: none"> construction of the facility will require the demolition and removal of the existing buildings and redundant infrastructure on the site. the WTS would comprise a steel frame superstructure with colourbond roof and wall cladding. the WTS building and offices would have a footprint of approximately 5,412 m².
Transport and Parking	<ul style="list-style-type: none"> waste delivery trucks (waste in) would generate 400 truck movements per day (200 inbound and 200 outbound). Waste delivery trucks would consist of a combination of front end loaders (9 tonne pay load), rear end loaders (3.5 tonne pay load) and roll on-roll off (2.5 tonne pay load) and would deliver waste to the site; waste transfer trucks (waste out) would generate 60 truck movements per day (30 inbound and 30 outbound). Waste transfer trucks would consist of 26 m B-double trucks (35 tonne pay load) and would transfer waste to a licensed landfill; 10 light vehicles inbound and outbound each day for employees; and transport restrictions: <ul style="list-style-type: none"> B-doubles would be restricted to travel along RMS haul routes. 10 car spaces would be provided for the WTS; and 35 truck spaces for B-Double trucks (the majority of trucks will not need to park on the site).
Hours of Work	<p>Construction:</p> <ul style="list-style-type: none"> standard EPA construction hours: <ul style="list-style-type: none"> 7.00am to 6.00pm (Monday to Friday); 8.00am to 1.00pm (Saturdays); and no work on Sundays or Public Holidays. <p>Operation:</p> <ul style="list-style-type: none"> 24 hours per day, seven days per week.
Mitigation Measures	<p>Air Quality and Odour:</p> <ul style="list-style-type: none"> negatively pressured building, air extraction and filtration systems; fast acting roller doors will be operated by proximity sensors or pressure pads and will operate in the 'closed' position unless triggered by an approaching vehicle; and the internal space will be fitted with water sprays for the suppression of dust. <p>Leachate Management:</p> <ul style="list-style-type: none"> residual leachate will be collected by the leachate management system and transferred to the landfill leachate treatment plant on the adjoining site (which is owned by the Applicant). The leachate treatment system is anticipated to operate for 30 years following the closure of the landfill.

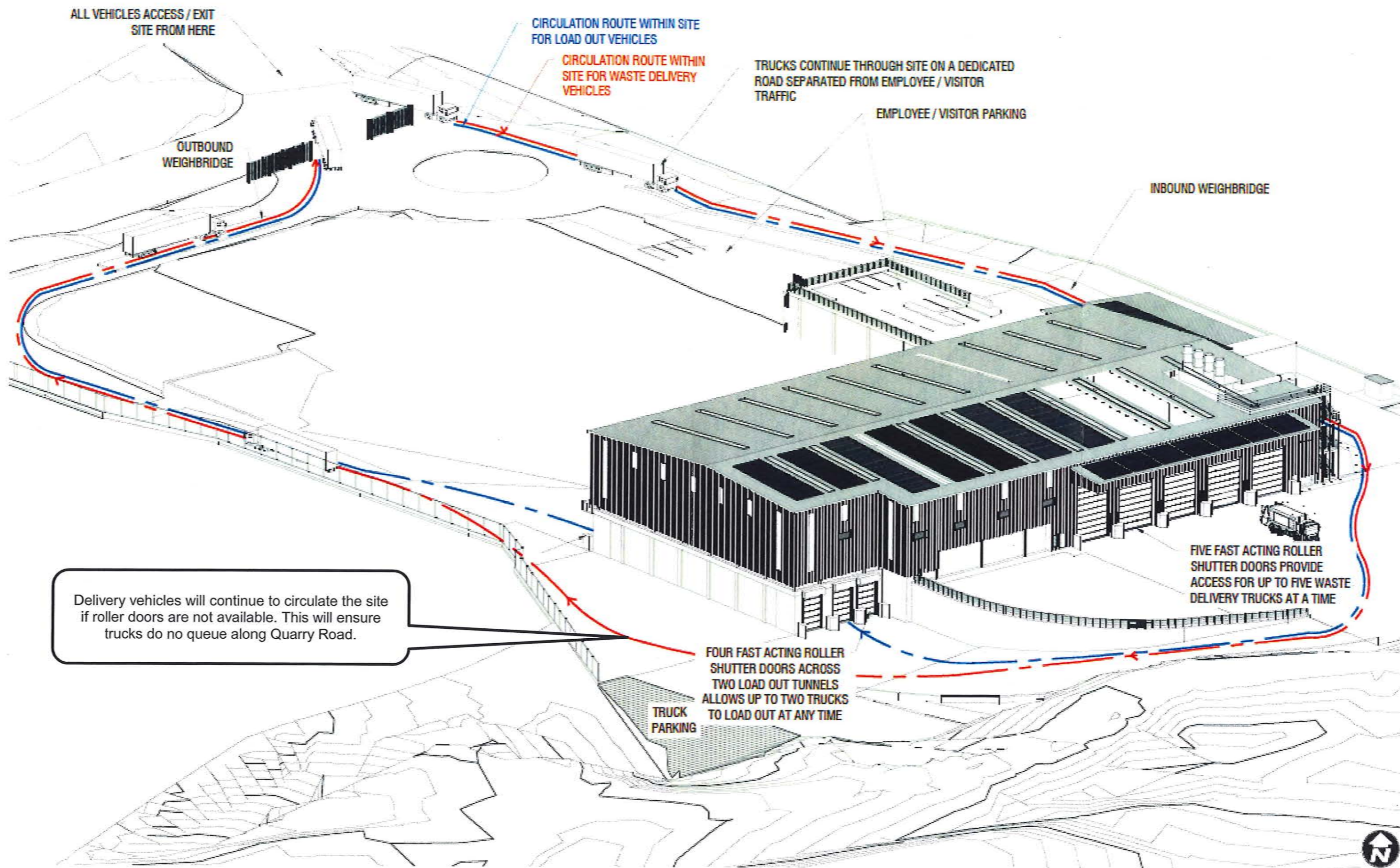


Figure 5: Proposed WTS

2.4 Waste Transfer Process

Waste received at the WTS would generally include food waste, paper and cardboard, plastics, metals and glass. Once at the site, waste transfer vehicles would be weighed on the incoming weighbridge, a load compliance inspection bay is proposed to allow the inspection of waste entering the facility. Any non-compliant loads would be removed from the site. The waste transfer vehicles would then reverse through one of the roller shutter doors, discharge their waste inside the WTS, exit the WTS via a down ramp and proceed south to the outgoing weighbridge. To control odour, the rollers doors will be closed unless triggered by proximity sensors or pressure pads from waste delivery/transfer trucks. Waste would only be stored on site for a maximum of one day before being transported off-site.

Waste inside the WTS would be consolidated, sorted and compacted. A front end loader would push the material through a floor opening for top loading. Prior to the waste being loaded into larger vehicles, the material may be sorted for large recyclable materials such as metals. The excavator would also redistribute waste material in the loaded vehicles and provide some compaction. It is proposed that in the future, waste compaction units will be used to achieve a greater level of compaction. Once the top loader has been filled it will be weighed and exit the site. All waste received would be transported off-site and disposed of at a licensed facility such as a landfill. The WTS process is shown in **Figure 5**.

Management Measures

The WTS would be fully enclosed, all waste deliveries and collection would occur inside the building to minimise odour emissions. The building will be held under negative pressure via the installation of the fast acting roller doors. Air inside the transfer station would be vented to an air extraction and filtration system to control odours. The building would be bird proofed to prevent bird infestations.

An air extraction system will be installed at or near the internal ceiling of the building. The extracted air would be drawn down from the enclosed building to an air pollution control device likely to be a wet scrubber. A wet scrubber operates by introducing the dirty air stream with a scrubbing liquid (typically water) which is then collected. Any excess scrubber liquid would be sent to the landfill leachate plant for treatment. The scrubbed clean air will then be drawn to the roof for dilution with fresh air and discharged through a series of stacks (see **Figure 5** and **6**). In addition, the internal space will be fitted with water sprays for the suppression of dust.

An infrared stockpile monitoring system will be installed for early detection of temperature rise, which may be indicative of elevated fire risk. A fire suppression system would be installed inside the building and at the load compliance inspection bay and an emergency exit is proposed to be located on the west side of the loading tunnel.

The internal floor slab would be concrete with a granular capping layer below which would provide durability of the slab and provide additional protection from leachates. Leachate from the waste would be collected, in sumps and within a contained drainage system in the tipping hall and load out areas. The leachate would be pumped to the existing landfill leachate treatment plant which is located outside of the development area on the north east corner of the site. Following treatment, leachate would be discharged to the public sewer on Quarry Road.

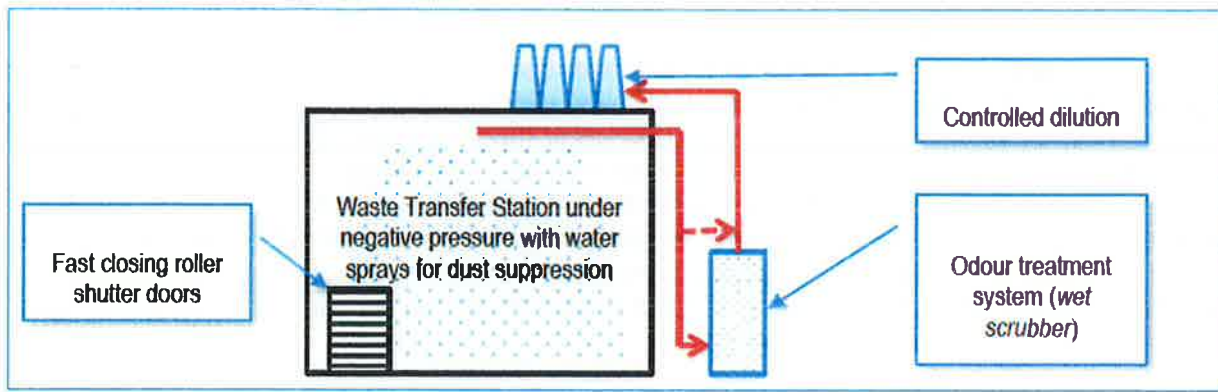


Figure 6: Air Pollution Control Scheme

2.5 Need and Justification for the Development

Reducing waste and keeping materials circulating within the economy are priorities for the NSW Government. To meet this important challenge, the Government has prepared a state-wide *Waste Avoidance and Resource Recovery Strategy* (WARR). The strategy for 2014-2021 sets waste recovery targets for C&I and MSW.

The WARR strategy identified that in 2010–11, a total of 17.1 million tonnes of waste and recycled materials was generated in NSW, an increase of 5.2% from 2008–09. Therefore, there would be a long term requirement for NSW to treat, transfer or dispose of waste. The Applicant states that there is a lack of landfill sites in the Sydney area and in order to meet the needs of a growing population, new infrastructure will be required for the transfer and disposal of residential and commercial putrescible waste.

In addition, the WARR strategy for 2014-2021 sets waste recycling targets for C&I and MSW. The proposed WRMF and in particular the RRF, would contribute to the State's recovery performance in both C&I and MSW.

The Erskine Park site was preferred by the Applicant as it currently owns the site. As the adjacent landfill will cease to be used in the coming years, the Applicant believes the subject site would best be utilised by a WRMF as it is located close to major arterial roads, such as the M4 and M7 Motorways and RMS approved routes for heavy vehicles. In addition, the site is located within an existing industrial park and has a sufficient buffer distance from the surrounding residential receivers of over 740 m.

3. STRATEGIC AND STATUTORY CONTEXT

3.1 Strategic Context

The NSW Government has announced the Premier's Priorities which cover 12 key areas including economic growth, provision of infrastructure, protection of vulnerable communities, improving education and environmental protection. One of the Premier's key priorities is 'Creating Jobs'. The NSW Government aims to provide 150,000 new jobs over the next four years.

The proposed WRMF would contribute toward 'Creating Jobs' by providing at least 30 construction jobs and 150 operational jobs in the Penrith LGA. The development also represents a \$50 million capital investment in industrial development.

The proposal is also consistent with the goals, directions and actions outlined in *A Plan for Growing Sydney* as it will:

- assist in the transformation of Western Sydney by providing growth and investment in an identified industrial precinct, with high levels of accessibility to the regional road network (Direction 1.4);

- provide additional employment opportunities within close proximity to existing residential developments in Western Sydney (Direction 1.4); and
- provide a high quality development which will stimulate economic activity and create new jobs within the Erskine Park Industrial Estate (Direction 1.7).

WARR Strategy

Reducing waste and keeping materials circulating within the economy are priorities for the NSW Government. To meet this important challenge, the Government has prepared a state-wide Waste Avoidance and Resource Recovery Strategy. The strategy for 2014-2021 sets a waste recovery targets for C&I and MSW. The targets are as follows:

By 2021–22, increase recycling rates for:

- MSW from 52% (in 2010–11) to 70%;
- C&I from 57% (in 2010–11) to 70%; and
- increase the waste diverted from landfill from 63% (in 2010-11) to 75%.

The proposed facility would contribute to the State's recovery performance in both the C&I and MSW.

3.2 State Significant Development

The proposal is classified as State significant development under Clause 23(3) of Schedule 1 in the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) because it involves development for the purposes of:

- a waste transfer station in metropolitan areas of the Sydney region that handles more than 100,000 tpa of waste; and
- a resource recovery facility that handles more than 100,000 tpa of waste.

Consequently, the Minister for Planning is the consent authority for the development.

3.3 Permissibility

The site is zoned IN1 General Industrial under *State Environmental Planning Policy (Western Sydney Employment Area) 2009*. The WTS and RRF are not considered development permitted with consent in the IN1 General Industrial zone. However, clause 120 of the *State Environmental Planning Policy (Infrastructure 2007)* (Infrastructure SEPP) advises that IN1 General Industrial is a prescribed zone, as such the proposed development is permissible with consent under clause 121 of the Infrastructure SEPP.

3.4 Consent Authority

In accordance with the Minister's delegation dated 14 September 2011, the Planning Assessment Commission (the Commission) must determine the application as more than 25 public submissions in the nature of objections were received.

3.5 Other Approvals

Under section 89K of the Act, approval is required to be obtained from other public authorities and must be granted in a manner that is substantially consistent with any development consent for the proposal. This includes an Environment Protection Licence (EPL) under the *Protection of the Environment Operations Act 1997*.

The Department has consulted the Environment Protection Authority (EPA) and considered the relevant issues relating to these approvals in its assessment of the proposal. The EPA has advised that the proposal can be granted an EPL.

3.6 Considerations under Section 79C of the EP&A Act

Under section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act), in determining a DA, a consent authority is required to take a number of matters into consideration in relation to the development. The Department has given due consideration to the matters prescribed by Section 79C.

The Department's detailed consideration of the development against the provisions of section 79C of the EP&A Act is contained within **Appendix E** of this report.

3.7 Environmental Planning Instruments

Under section 79C of the EP&A Act the Minister must take into consideration any relevant environmental planning instrument including any exhibited draft. The Department has considered the development against the relevant provisions of several relevant instruments including:

- *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP);*
- *State Environmental Planning Policy (Western Sydney Employment Area) (WSEA SEPP);*
- *State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP);*
- *State Environmental Planning Policy No. 55 - Remediation of Land (SEPP 55);*
- *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (SEPP 33);*
- *Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River; and*
- *Penrith Development Control Plan 2014 (Penrith DCP).*

The Department is satisfied that, subject to the implementation of the recommended conditions of consent, the proposal is generally consistent with the aims, objectives and provisions of these instruments (see **Appendix F**).

3.8 Public Exhibition and Notification

Under Section 89F(1) of the EP&A Act, the Secretary is required to make the development application and any accompanying information of an SSD application publicly available for at least 30 days. The application was on public exhibition from 4 November 2015 until 4 December 2015. Details of the exhibition process and notifications are provided in Section 4.1.

3.9 Objects of the EP&A Act

The Minister must consider the objects of the EP&A Act when making decisions under the EP&A Act. The objects of most relevance to the Minister's decision whether to approve the application are in section 5(a)(i),(ii),(vi) and (vii) of the Act. They are to encourage:

- (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, 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;*
- (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 habitat; and*
- (vii) *ecologically sustainable development.*

The Department is satisfied the proposal encourages the proper management of waste resources and the orderly and economic development of land. In particular, the proposal is a permissible use on industrial zoned land, is located within an industrial park, utilises the existing leachate treatment infrastructure and minimises the potential impacts associated with the establishment of a new facility at another location. The site is also strategically located with access to major regional road networks (M4 and M7 Motorways).

The Department recognises the potential impacts on other land uses nearby, particularly in relation to air quality, odour, traffic and noise impacts and has assessed potential impacts in detail in Section 5 of this report. The Department's assessment has concluded that the development may be undertaken in a manner that would not result in unacceptable impacts on the environment or other land uses. The Department has recommended a number of consent conditions to minimise residual environmental impacts as far as practicable.

The Department has considered the encouragement of ecologically sustainable development (ESD) in its assessment of the proposal. This assessment integrates all socio-economic and environmental considerations and seeks to avoid potentially serious or irreversible environmental damage based on appraisal of risk weighted consequences. The Department is satisfied that the proposal can be carried out in a manner that is consistent with the principles of ESD.

3.10 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle;*
- (b) *inter-generational equity;*
- (c) *conservation of biological diversity and ecological integrity; and*
- (d) *improved valuation, pricing and incentive mechanisms.*

The potential environmental impacts of the development have been assessed and, where potential impacts have been identified, mitigation measures and environmental safeguards have been recommended.

As demonstrated by the Department's assessment in Section 5 of this report, the development is not anticipated to have any adverse impacts on native flora or fauna, including threatened species, populations and ecological communities, and their habitats. As such, the Department considers that the proposal would not adversely impact on the environment and is consistent with the objectives of the EP&A Act and the principles of ESD.

3.11 Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act, assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered to be a 'controlled action'. The EIS for the development included a preliminary assessment of the MNES in relation to the development and concluded the development would not impact on any of these matters, and is therefore not a 'controlled action'. As such, a referral to the Commonwealth Government was not required.

4. CONSULTATION AND SUBMISSIONS

4.1 Consultation by the Department

After accepting the EIS for the application, the Department:

- made it publicly available from **Wednesday 4 November 2015**, until **Friday 4 December 2015**:
 - on the Department's website;
 - at the Department's Information Centre (Bridge Street, Sydney);
 - at Penrith City Council (Council) including the Penrith Civic Centre and St Marys Business Office;
 - Nature Conservation Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Council by letter; and
- advertised the exhibition in the Penrith Press.

A total of 351 submissions on the development were received, including:

- 344 public submissions, including 294 form letters, all in the nature of objection; and
- seven public authority submissions.

A summary of the key issues raised in these submissions is provided in section 4.2 and 4.3, with a copy of each submission included in **Appendix C**.

4.2 Public Authorities

The EPA did not initially support the proposal as described in the EIS as insufficient information was provided to allow for an adequate assessment to be made. As such, the EPA did not provide any recommendations on the conditions of consent. The main concerns raised by the EPA were in relation to the Air Quality Impact Assessment (AQIA) prepared by SLR Consulting in particular:

- the modelling conducted contained a number of model input errors including the meteorological (met) data and fugitive emission rates;
- insufficient details provided on the air pollution control devices;
- the odour modelling should consider the cumulative impacts from both stages and the maximum volume of material on-site at any one time; and
- that negative pressure can be maintained with 1-2 doors open permanently at the WTS in order for the worst case scenario to be reflected.

The EPA had no concerns relating to the construction and operation noise assessment and agreed with the Department's approach not to include noise limits in the development consent. The EPA advised that the proposal can be granted an EPL.

The Department has assessed the air quality and odour concerns outlined above. During the assessment, a number of the issues raised by the EPA were resolved within the Response to Submissions (RTS) report as discussed in section 4.4. Notwithstanding, section 5 of this assessment discusses odour along with recommended management and mitigation measures.

Penrith City Council (Council) did not raise an objection however, a number of concerns were raised in relation to:

- the design of the car parking/pedestrian access arrangements;
- articulation of architectural treatments;
- noise caused by reverse beepers;
- visual impacts including staging of the development and screening;
- whether fast acting roller doors are acceptable from a health and safety perspective;
- the ventilation and air pollution control system and cumulative air quality and odour impacts; and
- the lack of detail regarding mitigation measures should the air pollution control device breakdown or odour criteria exceedances occur.

The Council also made a number of recommendations in relation to:

- the re-routing of easements for neighbouring properties and access arrangements;
- the inclusion of a sediment and erosion and traffic control plan;
- works as executed drawings were requested to be submitted with the notification of the occupation certificate; and
- a positive covenant relating to stormwater management be provided prior to the issue of an occupation certificate.

The Department has addressed these matters in section 5 of this report or through conditions of consent. In brief:

- the design of the car park/pedestrian arrangement proposed is considered acceptable as the parking is located close to the office with separate pedestrian access provided;
- visual impacts are not considered a key concern as the site is located within an industrial estate with the nearest residential receiver over 740 m from the site; and
- air quality and odour is discussed in section 5 of this assessment.

The **Department of Primary Industries** (DPI) did not object and provided comments in relation to:

- dewatering, in particular that a licence would be required should 3 mega litres (ML) or greater of groundwater be extracted;
- the high likelihood of saline groundwater which will need to be considered during detailed design to prevent building and environmental impacts; and
- groundwater and landfill gas monitoring be conducted at the site.

The Department notes DPI's concerns and has included the relevant matters in the recommended conditions of consent. The Department considers the landfill gas and groundwater monitoring is relevant to existing landfill development not this proposal as this proposal is unlikely to result in contamination of groundwater.

Transport for NSW (TfNSW) did not object and recommended a condition be imposed requiring a Construction Traffic Management Plan.

The Department notes TfNSW's concerns and has included these matters in the recommended conditions of consent.

Roads and Maritime Services (RMS) reviewed the proposal and advised it had no concerns.

The **Rural Fire Service (RFS)** reviewed the proposal and advised it had no concerns as the site is not bushfire prone.

The **Office of Environment and Heritage (OEH)** reviewed the proposal and advised it had no concerns, as there were no heritage or biodiversity issues on the site.

4.3 General Public

There were 344 submissions from the general public objecting to the proposal, including 294 form letters. The following key issues were raised in general public submissions:

Air Quality and Odour

The majority of objections raised issues regarding the increased odour and air quality impacts, stating the local area already suffered significant odour problems from other nearby waste facilities. A reduction in air quality and associated health impacts on residents, the nearby childcare centre and schools was a key concern for the community. The odour control measures proposed are not supported, in particular the frequency and reporting of air quality monitoring was not considered adequate. It was requested that the air filtration system run daily.

The Department with the input from the EPA have thoroughly considered air quality, potential dust and odour impacts in section 5 of this report and concludes the additional management and mitigation measures would significantly decrease the potential for the air quality impacts.

Traffic

The additional traffic generated by the proposal and impacts on the local road network is not supported. The traffic assessment is considered to be inadequate and did not assess the traffic impacts on the entire length of Erskine Park Road. It was requested that both Erskine Park Road and Mamre Road be upgraded. A number of submissions also raised concern with the traffic routes of inbound waste delivery trucks which was not documented in the EIS.

The Department has addressed traffic and transport impacts in section 5 of this report. B-Double trucks are not permitted to travel through residential areas to the north along Mamre Road and Erskine Park Road, instead B-Doubles would travel along Lenore Drive to the west directly to the M7 Motorway.

The Department notes the Applicant has already paid contributions for infrastructure such as roads under the Erskine Business Park Contribution Plan 2008 and a satisfactory arrangements certificate has been issued by the Department.

Noise

The proposed 24 hour operations are not supported due to the potential noise impacts. Residents stated noise and vibration is already a problem along Erskine Park Road and Mamre Road. It is believed that the proposal will increase the noise impacts on residents in the area.

Consideration of these potential noise impacts are provided in section 5 of this report. The Department has concluded the facility would not lead to additional unacceptable impacts, subject to the implementation of appropriate mitigation measures.

Other

- the EIS did not include an assessment on Mamre Anglican School, Emmaus Catholic College and Trinity Catholic Primary School;
- the total impacts of the proposal cannot be assessed as the project has been broken into two stages;
- the proposal will reduce property values in the area;
- the proposal will result in visual impacts and impacts on wildlife; and
- impacts on nearby childcare facility is not supported.

The Department has considered the issues raised in submissions, and the Applicant's detailed responses to these issues in its assessment of the development.

4.4 Response to Submissions

The Applicant provided a response to these issues in its RTS report. The Department subsequently consulted with Council, the EPA and the Applicant regarding the draft recommended conditions of consent. Following this, the Applicant submitted detailed plans which included minor changes to the overall site layout and greater detail on the siting of the air pollution control device.

The Applicant did not make any substantial changes to the design of the proposal. However, the air quality issues have been addressed by way of clarification and additional information. In particular, the Applicant provided the following additional information as requested by the EPA:

- the odour dispersion model, was re-modelled using the St Mary's monitoring station data and wind fields. The results of the re-modelling show an increase in odour during normal operations and a decrease in emergency situations. This is due to a range of other factors (eg. weather) which can affect the dispersion model;
- an alternative scenario of 200 tonnes (the peak hourly tonnage) was modelled to assess higher than normal waste tonnage at the WTS. The results show the EPA's, 2 odour unit (OU) criteria for the 99th percentile can be met without the application of air pollution controls; and
- remodelling of fugitive emissions at 19% as opposed to 5% to address the negative pressure issue raised by the EPA. The results show the odour emissions would be compliant with legislative requirements. Notwithstanding, the Applicant proposed a smoke test program upon commissioning to confirm the potential egress of air from the building.

The Applicant also confirmed that:

- further detail on the architectural treatment of the facility will be provided with the detailed design;
- upon completion of the WTS, the undeveloped RRF area will be grassed until such time as construction can commence on the second stage to minimise run-off;
- operation of the fast acting roller shutter doors is a commonly applied control to offer a reduction in fugitive emissions and is well used in the industry to achieve negative pressure;
- truck routes for the small inbound waste delivery trucks will depend on waste collection locations, which will be determined as part of future waste collection contracts which are not yet in place. These trucks will use main connecting roads in preference to residential streets as far as practicable;
- no groundwater dewatering is expected, should groundwater be intersected, then a licence from DPI-Water would be obtained should greater than 3 ML be extracted; and
- a program of groundwater monitoring for the existing landfill is currently undertaken, in accordance with the requirements of an existing Environment Protection Licence (EPL 4865). This will continue during the closure and post-closure period for the landfill for at least 30 years.

The Department consulted with the agencies which raised concern with the EIS to ensure their concerns had been addressed in the RTS.

The EPA recommended a number of general terms of approval in relation to odour and air quality, in particular, the proposed wet scrubber pollution control device be installed and operational before the facility receives putrescible waste. In addition, the EPA recommended the wet scrubber be sized with an appropriate level of contingency to enable the pollution control device to be scaled up if necessary. The EPA stated the Applicant would need to apply for an EPL prior to commencement of works. The EPA recommended a number of mandatory conditions for the EPL.

The DPI requested further details on borehole locations and groundwater monitoring. However, this would be conducted as part of the existing landfill operations.

Council had no comments on the RTS.

5. ASSESSMENT

The Department has considered the EIS (**Appendix B**), the issues raised in the submissions (**Appendix C and E**), the Applicant's RTS (**Appendix D**) and relevant environmental planning instruments, policies and guidelines in its assessment of the proposal. The Department considers the key assessment issues are:

- WRMF concept proposal and site suitability;
- air quality and odour;
- traffic; and
- noise.

A number of other issues have also been considered in Table 3. These issues are considered to be minor and are addressed in Section 5.5.

5.1 WRMF Concept Proposal and Site Suitability

The proposed location is considered to be strategically beneficial by the Department as it:

- is located within an existing industrial park within the WSEA close to major arterial roads such as the M4 and M7 Motorways and RMS approved routes for heavy vehicles;
- has a sufficient buffer distance from the surrounding residential and sensitive receivers (childcare centre) of over 740 m and 670 m respectively;
- would promote economic development in the WSEA; and
- positively contributes to the WARR strategy through increased recycling and decreasing waste disposed to landfill.

The EIS assessed the environmental impacts associated with a maximum throughput of 300,000 tpa of putrescible waste being processed at the WTS (Stage 1). This represents the worst case scenario as it is unlikely that 100% of the waste received would be putrescible. Conceptually, the environmental impacts (air and odour, noise, traffic, visual and stormwater) of the WRMF are considered to be manageable as:

- there is sufficient buffer distance from the facility to residential and sensitive receivers (childcare centre);
- its located within an industrial area (with well-established infrastructure);
- it close to major arterial roads;
- the Applicant has paid contributions for transport infrastructure and services in the region;
- the proposed air pollution control system is scalable and can be modified if necessary;
- will utilise the existing leachate treatment plant infrastructure;
- the on-site stormwater detention basins have been designed for Stages 1 and 2;
- the RRF will be subject to a separate DA which will consider detailed design and cumulative impacts of Stages 1 and 2; and
- the waste at the RRF is unlikely to generate odour as it will recycle non-putrescible waste.

The WRMF would have a total gross floor area of 11,780 m² with a building height of 14 m plus vents. The Penrith DCP specifies a height limit of 15 m for buildings within the southern area of the Erskine Park Industrial Estate. Whilst the Penrith DCP does not apply to the site and the WSEA SEPP prevails, the Department has also considered the DCP in the assessment of the concept proposal. The Department considers the proposal is generally consistent with the DCP.

As the materials to be recycled at the RRF will not be fully known until the WTS is operational, the RRF will require further environmental assessment. The Department has not recommended future environmental assessment requirements for the concept proposal, as the DA for the RRF will be State significant development as per clause 12, Part 2 of the SRD SEPP and as such will be subject to Secretary's Environmental Assessment Requirements (SEARs). The SEARs will outline the matters required to be addressed by the EIS and will include cumulative impacts.

Conclusion on Concept Proposal and Site Suitability

The Department considers the concept proposal would contribute to meeting the targets of both the WARR and the Premier's priorities by reducing the waste diverted to landfill and providing employment opportunities. Strategically, the concept proposal is considered to be suitably located. The Department considers any environmental impacts associated with the WRMF can be managed and the site itself is suitable for a WRMF as it is located within an industrial precinct with a sufficient buffer distance from residential receivers and sensitive receivers. The air pollution control system proposed by the Applicant has the ability to be scaled up should odour issues at the site become problematic. In addition, utilisation of the existing leachate treatment plant infrastructure is considered beneficial. The building envelope proposed is considered in line with Council's DCP and will not result in significant visual impacts. Therefore, the Department considers the concept proposal to be suitable for the site.

5.2 Air Quality and Odour

The proposal has the potential to generate odour and particulate matter once operational as the WTS would consolidate and transfer putrescible and non-putrescible waste. Dust may also be generated during construction.

The Department acknowledges the history of odour complaints in the Western Sydney area and that odour was a key concern to the local community, which was raised in the majority of submissions. In 2012, following community complaints about odour in Eastern Creek, Erskine Park and Kemps Creek, the EPA commissioned the Western Sydney Regional Odour Assessment (report prepared by The Odour Unit, 2013). The assessment found there were three waste facilities identified to be emitting odours detectable at significant levels beyond the site boundaries. These included the Global Renewables Facility at Eastern Creek, Waste Assets Management Corporation Landfill at Eastern Creek and SITA SAWT Facility at Kemps Creek. The Department notes that the Erskine Park non-putrescible landfill has not been identified as a source of odour in the region.

To address the potential air quality and odour issues, the EIS included an Air Quality Impact Assessment (AQIA) prepared by SLR Consulting. The AQIA included a preliminary risk analysis for construction works and proposed mitigation measures. The AQIA also assessed the operational impacts of the WTS based on a design capacity of 300,000 tpa which represents the maximum throughput of the WRMF.

The key sources of air quality and odour impacts are expected to arise from:

- dust during construction;
- odour from operation of the WTS;
- dust emissions from the operation of the WTS; and
- road traffic exhaust emissions from operational vehicles.

The EPA initially advised it could not support the proposal due to limited information provided and requested that the maximum hourly waste tonnage be modelled for odour and the St Marys met data be used in the modelling as opposed to the Horsley Park Bureau of Metrology (BOM) met data. Following submission of the RTS, which included additional information and modelling, the EPA were satisfied the odour issues could be adequately managed. The EPA recommended the proposed wet scrubber pollution control device be installed and operational before the facility receives waste. In addition, the EPA recommended that the wet scrubber be sized with an appropriate level of contingency to enable the pollution control device to be scaled up if necessary. The EPA stated the Applicant would need to apply for an EPL prior to commencement of works.

Council raised concern with the lack of mitigation measures proposed should the air pollution control device fail or odour exceedances occur.

Submissions received from the general public also raised objections to the proposal on the grounds of the existing air quality and odour impacts generated by the existing operations. The community raised concern with the Applicant's proposed 12 month monitoring period stating that ongoing monitoring should be required.

These matters are discussed in more detail below.

Construction Air Quality Impacts

The demolition and construction phase is estimated to be approximately 10 to 15 months. The AQIA included a preliminary risk assessment for each element of the demolition and construction works. The AQIA identified mitigation measures that would reduce the risk of air quality impacts during demolition and construction works. These include:

- developing and implementing a Dust Management Plan;
- soft striping inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust);
- a complaints register for dust and air quality complaints;
- imposing a maximum-speed-limit of 30 km/per hour on surfaced and 10 km/per hour on unsurfaced roads and work areas; and
- re-vegetating earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.

The Department notes that the demolition and construction period is relatively short (10 to 15 months) and that the proposal is located within an industrial precinct with sufficient buffer distance from sensitive receivers. Therefore, the Department's assessment concludes that normal construction dust measures such as a Construction Environmental Management Plan (CEMP), water suppression on stockpiles and exposed areas, regular sweeping of hard stand areas and construction vehicle wheel washing where necessary, and those identified above will be sufficient to ensure that construction phase impacts can be adequately managed. The Department has included a number of conditions of consent dealing with these matters, including the requirement to implement a CEMP prior to commencement of construction.

Operational Odour and Air quality Impacts

To address the requirements of the EPA's *Approved Methods for Modelling and Assessment of Air Pollutants in NSW* (Approved Methods), the AQIA predicted the operational impacts of odour, total suspended particulates (TSP), dust deposition, PM₁₀ and PM_{2.5}. The odour modelling assumed a maximum throughput of 300,000 tpa and that 100% of the waste on the tipping floor was MSW (putrescible waste). As such, the odour and air quality modelling in the EIS and RTS represents the worst case scenario. The modelling considered the closest sensitive receivers including the childcare centre on Mamre Road, residents at St Clair and adjacent industrial receivers.

The maximum throughput of the WRMF will not exceed 300,000 tpa. As the odour and air quality profile may change once the RRF is operational, the DA for the RRF (ie Stage 2) will need to address air quality and odour. Notwithstanding, the waste that will be processed at the RRF would be non-

putrescible, and is unlikely to generate odour similar to putrescible waste. The findings of the assessment are discussed in more detail below. The nearest sensitive receivers are shown in **Figure 7**.

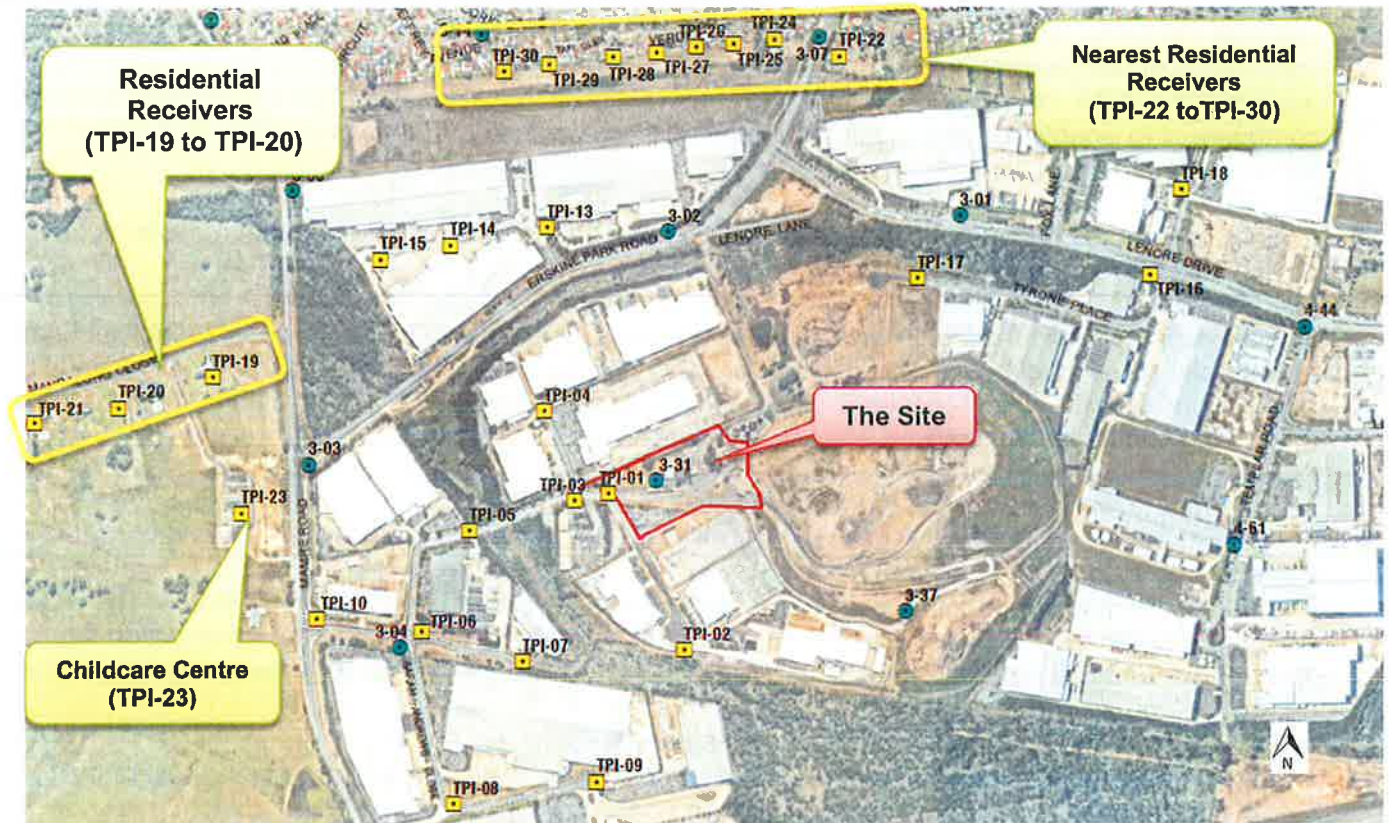


Figure 7: Nearest receivers

Odour

Odour was a key concern to the EPA, Council and the community. To quantify potential odour impacts, three operating scenarios were modelled:

1. 'Normal Operations' – i.e. the operations associated with the anticipated throughput at the design capacity of the plant, transferring approximately 1,040 tonnes of MSW per day;
2. 'Maximum Hourly Tonnage' – i.e. the peak hourly tonnage based on 200 tonnes of MSW on the tipping floor during normal operating conditions; and
3. 'Emergency Operations' - i.e. the operations associated with unforeseen events such as road closures or extreme weather events that result in no waste being able to be exported from the plant, and the temporary storage of approximately 1,040 tonnes of waste on the floor of the WTS overnight.

The EPA's most stringent criterion applied to residential receivers is 2 OU at the 99th percentile, which is a very small level of odour concentration and allows for unforeseen events. The 99th percentile represents the odour concentration that can be achieved for 99% of the year. **Figures 8 and 9** shows the odour concentrations for the 99th percentile for normal operations and maximum hourly tonnage at the most affected receivers. The Applicant also modelled the 100th percentile (the odour concentration that can be achieved for 100% of the year) for an emergency situation with the air pollution control system operating at 70% control (see **Figure 10**). Following the EPA's request, the odour dispersion model was re-modelled in the RTS using the St Mary's met data. **Figures 8, 9 and 10** show the re-modelled data and the 2 OU contour under the above mentioned scenarios.

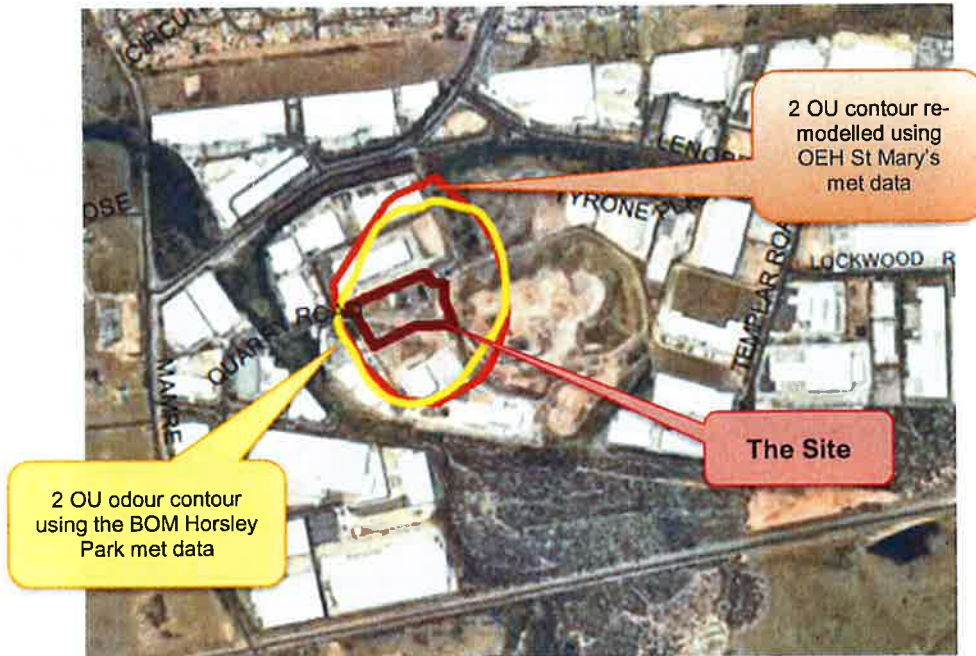


Figure 8: Normal Operations - predicted ground level 2 OU concentrations, 99th percentile, no air pollution control devices in operation.



Figure 9: Maximum Hourly Tonnage - predicted ground level 2 OU concentrations, 99th percentile, no air pollution control devices in operation (modelled as part of the RTS).

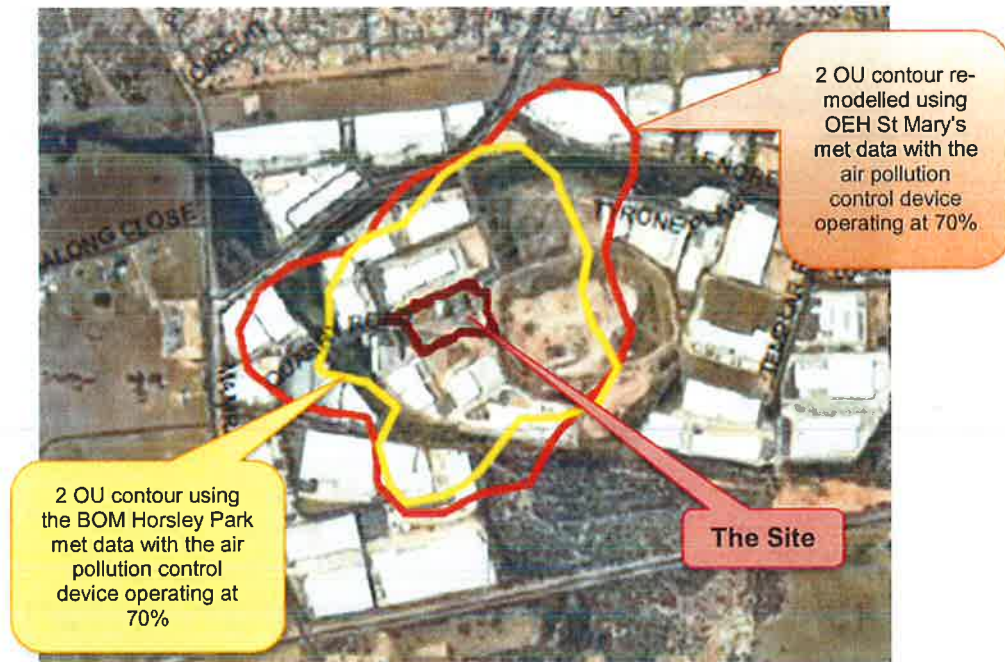


Figure 10: Emergency Situation - predicted ground level 2 OU concentrations, 100th percentile with the air pollution control device operating at 70% control.

The results show that:

- when the WTS is operating under normal conditions, with no air pollution control devices, at the design capacity throughput of 300,000 tpa, the plant would not exceed the NSW EPA most stringent odour impact assessment criterion of 2 OU at any residential or sensitive receiver locations;
- when the WTS is operating at the maximum hourly tonnage, with no air pollution control devices, the plant would not exceed the NSW EPA impact assessment criterion of 2 OU at any residential or sensitive receiver locations;
- the air quality criteria will be met at the childcare centre during normal operating conditions and maximum hourly tonnage; and
- in emergency situations, the 2 OU criteria would be met at sensitive receivers if the air pollution control system was operating at 70% capacity.

Based on the scenarios assessed, it is therefore recommended that the air pollution control device such as a wet scrubber is constructed and installed for mainly emergency/contingency situations. The Applicant proposes to install the wet scrubber prior to any waste being accepted at the site. The Department has also recommended a condition which requires the Applicant to prepare and Odour Management Plan which includes well defined triggers to ensure efficient and optimal operation of the wet scrubber. The EPA recommended that the wet scrubber technology be sized with an appropriate level of contingency to enable the air pollution control device to be scaled up if necessary.

Odour Management Measures

To minimise the potential odour impacts from the operation of the WTS, the Applicant has incorporated a range of design, construction and operational measures to avoid and mitigate odour impacts including:

- a fully enclosed transfer station which is negatively pressured and fitted with automatically closing truck entry doors and mechanical ventilation;
- an air pollution control device such as a wet scrubber that can be used during normal operations or emergency scenarios;
- dilution fans which will be installed to maximise the dispersion and dilution of the extracted, and scrubbed air;
- carrying out all unloading and loading operations within the WTS building;

- monitoring the odour in the first 12 months and performing efficiency trials on the wet scrubber system to demonstrate optimal performance; and
- undertaking follow-up monitoring during the operational lifetime of the WTS.

Particulate Matter (Dust)

The WTS would generate dust during waste handling from trucks and mobile equipment and from road traffic noting that all waste handling would occur within the enclosed WTS.

The Applicant's AQIA predicts air quality impacts are within the criteria set out in the *Approved Methods*. **Table 3** indicates the performance of the WTS for each type of pollutant against the corresponding criteria for the most affected residential and sensitive receiver. The predictions comply with all criteria and in many cases the predicted impacts are significantly below criteria.

Table 3: Predicted particulate matter at the most affected receiver

Type	Criteria	Particulate matter contribution from the WTS at the most affected receiver	Cumulative impact at most affected receiver (includes the WTS)
TSP	90 µg/m ³	1.5 µg/m ³ (receiver: TPI-17)	62.4 µg/m ³ (receiver: TPI-17)
Dust deposition	2 g/m ² /month	<0.1 (all receivers)	<2.1 (all receivers)
PM ₁₀ Annual mean	20 µg/m ³	1.5 µg/m ³ (receiver: TPI-17)	16.7 µg/m ³ (receiver: TPI-17)
PM ₁₀ 24-hour mean	50 µg/m ³	10.5 µg/m ³ (receiver: TPI-17)	39.2 µg/m ³ (receiver: TPI-17)
PM _{2.5} Annual mean	8 µg/m ³	1.6 µg/m ³ (receiver: TPI-17)	10.6 µg/m ³ (receiver: TPI-17)
PM _{2.5} 24-hour mean	25 µg/m ³	10.8 µg/m ³ (receiver: TPI-22)	23.2 µg/m ³ (receiver: TPI-22)

Note: the highest contribution of particulate matter from the WTS at the most affected receiver was used in Table 4 with the corresponding cumulative concentration. Cumulative impacts may be slightly higher at other receivers.

The EPA did not raise any concerns in relation to particulate matter. The results show the background particulate matter in the area is elevated. However, the increase in particulate matter from the proposal is considered minor. Dust related impacts during operation should not exceed the relevant air quality standards for TSP, PM₁₀ or PM_{2.5}, or for dust nuisance (as determined by dust deposition rates) and are considered to be manageable.

Particulate Matter Management Measures

The Applicant has included the following management measures to mitigate dust impacts:

- an internal dust suppression system would be installed within the WTS building to emit a fine water mist to control airborne particles;
- all unloading and loading would occur within the WTS building and the building would operate under negative pressure; and
- the proposal is expected to comply with the latest Group 6 air emissions standards in the *Protection of the Environment Operations (Clean Air) Regulation 2010* which are used by the EPA to regulate particulate matter at the discharge point.

Conclusion on Odour and Air Quality Impacts

The Department acknowledges the odour issue in the Western Sydney region and notes the existing Erskine Park landfill does not contribute to this odour. The odour modelling conducted was based on

a worst case scenario and the WTS will be fully enclosed, kept under negative pressure and will have a scalable air pollution control device (wet scrubber) installed prior to operation. The Department also considers there to be a sufficient buffer distance between the proposal and nearest sensitive receiver (670 m). The Department, the EPA and Council have reviewed the AQIA and RTS and are satisfied the odour and air quality impacts can be adequately managed with the installation of an air pollution control device.

The Department concludes the proposal includes sufficient air quality impact mitigation measures to ensure dust and odour emissions do not create unacceptable impacts subject to the recommended conditions. The Department has recommended:

- standard construction dust emissions control;
- an air pollution control system be installed which includes:
 - an air filtration and/or wet scrubber;
 - dilution stacks;
 - fast acting roller doors;
 - dust suppression through the use of water sprays/misters;
 - sealing of on-site surfaces and regularly maintaining them to prevent dust re-entrainment from vehicle movements and other equipment use;
- the wet scrubber technology or similar must be sized with an appropriate level of contingency to enable the level of control to be able to scaled up if necessary;
- the air pollution control system be installed and able to operate before the facility accepts any waste;
- the preparation of an Odour Management Plan to be approved by the Secretary which includes well defined triggers for the operation of the wet scrubber to ensure it is operating as required;
- all loading and unloading of heavy vehicles occurs inside the WTS;
- any waste vehicles parked on the site shall not emit offensive odours;
- trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading within the WTS; and
- a complaints response protocol to ensure the Applicant fully resolves any air quality and odour related complaints.

The Department is satisfied the above recommended conditions of consent will ensure air quality and odour can be adequately managed.

5.3 Traffic

The WTS has the potential to generate substantial traffic movements with delivery trucks depositing waste at the site, B-Double trucks transferring the waste to licenced facilities and light vehicles associated with staff trips. Increased traffic has the potential to impact safety and the capacity of the surrounding road network.

The EIS included a Transport Impact Assessment (TIA) prepared by Traffix dated September 2015 which assessed the potential traffic impacts of the WTS on the surrounding road network. The TIA assessment was conducted on a worst case scenario, based on a maximum throughput of 300,000 tpa of waste being processed at the site. The EIS indicated that when the Applicant's existing landfill operations cease, truck movements associated with this facility will also cease, reducing current truck numbers on the local road network.

The traffic movements may change once the RRF is operational. The traffic impacts associated with the RRF will be further assessed in the DA for the RRF.

RMS and TfNSW raised no concerns with the proposed traffic impacts. TfNSW and Council requested that a construction traffic management plan be prepared and Council raised concern with the access arrangements and location of the car parking. Traffic impacts were a key concern to the community in particular the impacts along Erskine Park Road.

Construction Traffic Impacts

The construction period for Stage 1 (WTS) is anticipated to last 10 to 15 months. The Applicant has committed to preparing a traffic management plan for construction.

An assessment of the construction traffic impacts was not provided. However, the overall traffic during the construction phase is expected to be less than the operation of Stage 1. The site has adequate access arrangements in place for construction.

As recommended by TfNSW and Council, the Department has recommended conditions requiring the Applicant to implement a CEMP, which would address construction traffic management.

Operational Traffic Impacts

The site is located within the WSEA which has suitable infrastructure to accommodate the surrounding industrial area. The WSEA includes provisions for the collection of State infrastructure contributions. This contribution is used for the purpose of funding regional road infrastructure works in the WSEA. The Applicant has paid its WSEA contribution for the proposal and the Department has issued a Satisfactory Arrangement Certificate (see **Appendix H**). The Department's assessment of key intersections, traffic routes, site access and parking is provided below.

Key Intersections

The TIA predicted the WTS would generate approximately:

- 400 waste delivery truck movements per day (200 inbound and 200 outbound) that would deliver waste to the facility;
- 60 transfer truck movements per day (30 inbound and 30 outbound) which would transfer waste from the facility to a licensed landfill; and
- 20 (10 inbound and 10 outbound) car vehicle movements per day for employees.

The TIA predicts there would be 16 incoming delivery trucks (32 truck movements in total) and 4 outgoing B-Double trucks (8 B-Double truck movements in total) during the AM peak hour. The AM peak hour is anticipated to have higher traffic volumes than the PM peak hour. The impacts of these movements on Erskine Park Road is discussed in more detail below.

The SIDRA analysis of the surrounding road network found that under existing conditions, the intersections of Mamre Road/Erskine Park Road (see **Figure 11**, Intersection 1), Mamre Road/James Erskine Drive (see **Figure 11**, Intersection 2) and Quarry Road/James Erskine Drive (see **Figure 11**, Intersection 3) are operating at a level of service between A and B which is considered to be good with acceptable delays and spare capacity. The three key intersections are shown in **Figure 11** below.



Figure 11: Key Intersections

The operation of all three intersections is expected to remain well within the acceptable limits at full development of the Erskine Park Industrial Estate (inclusive of the proposal), at a level of service of A or B without the need to upgrade the road network.

Traffic Routes

The road infrastructure within the WSEA is well established and the site is close to major arterial roads such as the M4 and M7 Motorways. Access to the site is considered suitable for the proposed use.

Inbound smaller delivery trucks will collect waste from residential and commercial areas and deliver it to the WTS. As such, the transport route of these trucks will be based on the pick-up locations.

The community raised concern with traffic conflicts, in particular waste delivery trucks travelling along Erskine Park Road and residents making right hand turns onto Erskine Park Road. Whilst the inbound smaller delivery trucks may use Erskine Park Road, the larger waste transfer B-Double vehicles will travel along Lenore Drive to access the M7 and M4 Motorways. Erskine Park Road is a dual carriage way road which carries approximately 28,000 vehicles per day, the proposal would contribute 1.6% of the daily traffic movements along Erskine Park Road. As such, the Department is satisfied the development can be satisfactorily accommodated within the existing road network with minimal cumulative impact.

Following sorting of the waste, B-Double trucks will transfer the waste from the WTS to a licenced waste facility for disposal. The B-Doubles would travel via the RMS approved B-Double routes (see **Figure 12**). In order to access the M7 Motorway, the B-Doubles would travel along Mamre Road, Erskine Park Road and Lenore Drive and avoid travelling through residential areas to the north.

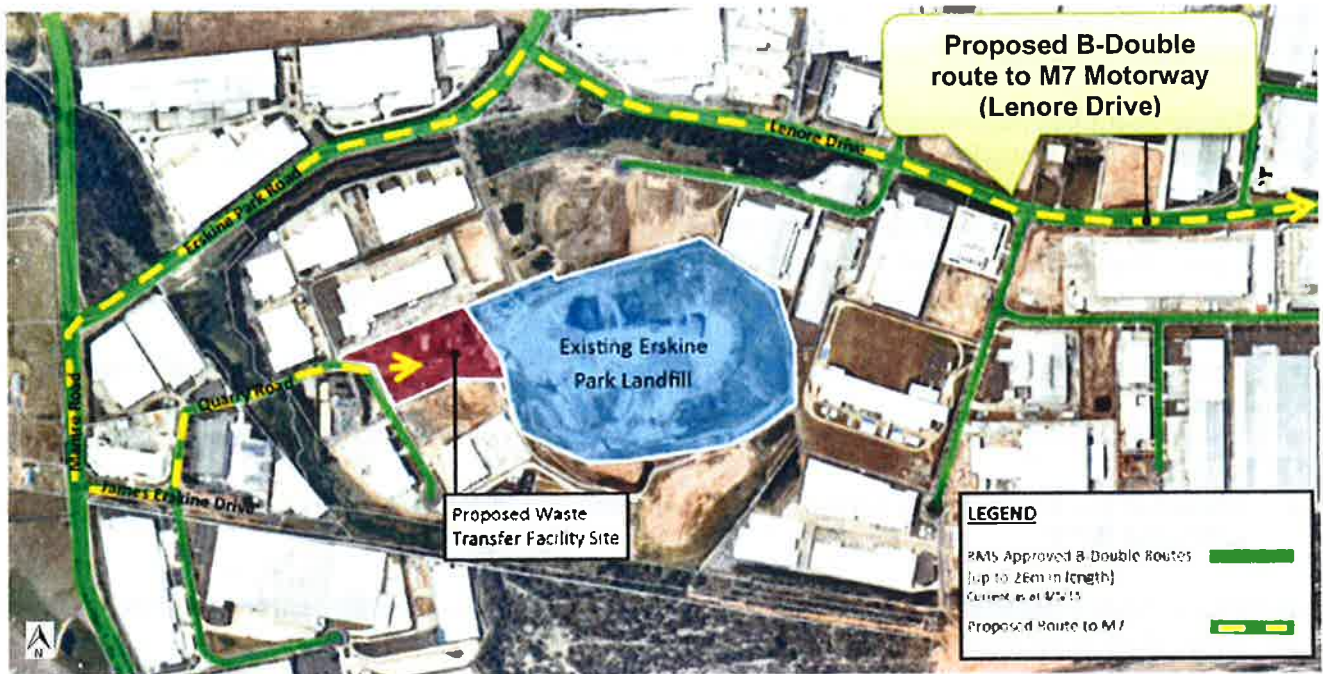


Figure 12: Proposed B-Double Route

Site Access, Circulation and Parking

Council raised concern with the design of the car parking/pedestrian access arrangements and requested the car parking be located at the entrance of the facility. The Applicant stated the car parking should be located near the office and amenities block to minimise the distance personnel need to travel within the site to ensure interaction between pedestrians and vehicles is minimised.

The site access and parking arrangements for the site are as follows:

- the site has well established site access;
- the development will have separated access for trucks (delivery trucks and B-Doubles) and light vehicles from the on-site roundabout;
- the configuration of the facility would ensure trucks, enter, circulate, unload/load as required and exit the site in a forward direction;
- Council's DCP indicated that 60 parking spaces are required (based off 1 space per 75m² of gross floor area). Given the nature of the facility, with approximately 10 staff on-site at any time (which is a considerably lower compared to other industrial developments of similar size), it is considered that 10 car spaces is appropriate for the WTS and a further 15 spaces will be provided for the RRF. The Department considers the proposed parking to be adequate and has recommended that one disabled car space be provided; and
- the Applicant has also allowed for 35 truck spaces and one load compliance inspection truck space, which would also be used to inspect loads and reduce fire risks should a load enter the WTS on fire. Fire suppressant devices would be available at the load inspection area.

Conclusion on Traffic Impacts

The Department acknowledges the communities concern about Erskine Park Road. Notwithstanding, the surrounding road network is well established and is able to handle large traffic volumes. The Erskine Park Industrial Estate has been designed to a high standard and provides a signalised intersection at the entry of the estate. The proposal will generate relatively low traffic volumes (1.6%) in comparison to the existing traffic volumes.

The site is considered to be a suitable location due to its close proximity to the M4 and M7 Motorways and RMS approved B-Double routes. The Department considers the local road network has sufficient capacity to deal with the traffic generated by the proposal. In addition, once the adjacent landfill operations cease there will be a reduction in traffic volumes in the local area. The RMS and Council

have not raised concern with the predicted traffic impacts. The Department considers that the impacts can adequately managed through conditions of consent.

The Department has recommended conditions of consent relating to truck routes, site access, vehicle manoeuvring, load covering and parking. This includes conditions requiring the Applicant to:

- prepare a CEMP which address construction traffic impacts;
- provide at least one load compliance inspection truck space;
- trucks shall only be parked in the designated truck park areas;
- prepare an Operational Environmental Management Plan (OEMP) which addresses operational traffic impacts;
- consider scheduling its delivery and transfer trucks to avoid the busy morning and afternoon peak hours;
- ensure the development does not result in trucks parking or queuing on the public road network; and
- ensure all trucks are wholly contained within the site and all loading and unloading activities occur within the WTS.

The Department's assessment concludes site access and parking arrangements are satisfactory and the traffic impacts can be effectively managed.

5.4 Noise

The development would generate noise during construction and operation, primarily from on-site truck movements and the loading and unloading of waste material.

The EIS included a Construction and Operation Noise Assessment (CONA) prepared by SLR Consulting to address the requirements of the *Industrial Noise Policy (INP)*, *Interim Construction Noise Guidelines (ICNG)*, *Road Noise Policy* and *Assessing Vibration: A Technical Guide*. The report describes the existing noise environment and predicts noise impacts for construction and operation of the WTS based on a processing capacity of 300,000 tpa of waste. The noise impacts associated with the RRF would be assessed in the future DA for the facility.

Noise impacts from the facility operating 24 hours a day, seven days a week and noise generated by heavy vehicles is a key concern for the community. Both the EPA and Council did not raise any concerns regarding noise. However, Council stated that consideration should be given to nuisance caused by the use of reverse alarms (beepers) on the site.

Construction Noise Impacts

Construction and demolition is expected to last 10 to 15 months. Noise generated during construction works would primarily arise from:

- demolition works of the existing structures and buildings and bulk earth works; and
- construction of the WTS, office building, associated infrastructure and ancillary components.

The hours of construction and noise criteria proposed are as per the ICNG. The CONA predicts noise generated during construction at residential receivers during the day time will be between 29 dB(A) and 41 dB(A) which is below the background noise level in the area. As such, the CONA demonstrates that noise emissions from construction activities are predicted to meet the EPA's $L_{Aeq(15\text{minute})}$ criteria at all receivers under a range of different construction scenarios.

The Department's assessment concludes that standard construction noise measures such as a CEMP, properly maintained sound attenuation on equipment, and appropriate construction hours will be sufficient to ensure that construction phase impacts are not worse than operational impacts. The Department has recommended construction hours as per the ICNG and the preparation and implementation of a CEMP to manage construction noise.

Operational Noise Impacts

The facility will operate 24 hours a day, seven days a week and although the majority of truck movements to and from the site are expected to occur between 7am and 5pm, the hours of operation were a key concern to the community.

The key noise sources during operation would be from on-site and off-site truck movements, loading/unloading of waste material, waste bailing equipment and operation of the mechanical ventilation system.

The development is located within an established industrial park within the WSEA. The nearest residences are located approximately 740 m to the north at St Clair (RR4), 1.3 km to the east within the Erskine Park Industrial Estate (RR3), 1.3 km to the south at Kemps Creek (RR2), and 850 m to the west at Orchard Hills (RR1) (see **Figure 13**). The resident (RR3) within the Erskine Park Industrial Estate is an isolated resident. A childcare centre (CC1) which has recently opened is located approximately 670 m to the west. **Figure 13** below shows the closest residential receivers numbered RR1 to RR4, industrial receivers are numbered IR1 to IR3 and the childcare centre labelled as CC1. Noise monitoring locations have been labelled as NM1 to NM4.

In predicting noise emissions from the development, the worst case scenario was assumed with all plant items operating concurrently in order to simulate the overall maximum potential noise emission. The CONA also considered a variety of adverse weather conditions to ensure the worst case scenario was modelled.



Figure 13: Nearest Receivers

The noise predictions from the proposed development comply with or meet all relevant day and night criteria for intrusive and amenity noise as specified in the INP. The proposal also complies with the criteria for sleep disturbance in the INP. The highest predicted impact for each period at the most affected receiver (RR4) is shown in **Table 4** below. As the childcare centre raised concern regarding the proposal, the Department has also conducted an assessment of the noise impacts on the

childcare centre. **Table 4** demonstrates that the predicted noise impacts at the childcare centre also comply with the relevant noise criteria.

Table 4: Predicted Noise Levels of most affected residential receiver and childcare centre.

Criteria and Most Affected Receiver	Intrusive Aeq,15min dB(A)		Amenity Aeq,period dB(A)		Sleep Disturbance A1(1 minute) dB(A)
	Day	Night ³	Day	Night ³	Night ³
Predicted Noise Level at RR4 (St Clair)	37	41	36	38	47
Criteria¹ for RR4	48	44	59	38	54
Predicted Noise Level at the Childcare Centre (Mamre Road)	35	-	33	-	-
Criteria for Childcare Centre	60 ²	-	-	-	-

Note 1: Project specific noise criteria based off INP.

Note 2: child care criteria is based on AS 2107:2000 for a recommended internal noise level of 40 dBA (external noise level of 60 dBA based on closed windows and 20 dB reduction).

Note 3: As evening and night will have the same operations, the night time criteria has been applied during evening times as it is the more stringent criteria.

All other receivers are more distant than the most affected receivers described above, and would have lower noise predictions. All industrial receivers meet the amenity criteria.

Road traffic noise impacts from the development on residences and the childcare centre are predicted to comply with the EPA's Road Noise Policy. The predicted road noise increase from the development is expected to be below 2 dB(A), thereby complying with the EPA's Road Noise Policy.

No noise mitigation measures were proposed by the Applicant in relation to noise.

Conclusion on Noise Impacts

The existing acoustic environment in the area is dominated by traffic noise from the surrounding road network, the existing industrial operations within Erskine Park Industrial Estate (many of which operate 24 hours a day, seven days a week) and the WSEA. The Department's assessment concludes that the potential noise impacts for construction and operation would comply with relevant criteria and are not expected to exceed the existing noise levels. The Department considers that 24 hour operations are unlikely to impact on sensitive receivers as the noise criteria is expected to be met. The Department has not recommended any noise limits at the development, due to the high background noise environment. The EPA were satisfied with this approach. Notwithstanding, the Department has recommended the following to mitigate against any noise impacts:

- standard construction hours as per the interim construction noise guidelines;
- the CEMP address noise impacts and mitigation measures;
- maintain a complaints register and consider further mitigation measures as part of responding to any complaints received;
- implement best management practice, including all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise generated by the development;
- minimise the noise impacts of the development during adverse meteorological conditions; and
- maintain the effectiveness of noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired.

The Department assessment concludes that noise impacts associated with the development can be adequately managed through the recommended conditions of consent.

5.5 Other Issues

The Department’s assessment of other issues is provided in **Table 6** below.

Table 6: Assessment of other issues

Consideration	Recommended Conditions
Stormwater, Leachate and Firewater	
<ul style="list-style-type: none"> The EIS included a Surface Water Assessment prepared by SLR Consulting. Any discharge off-site would be via the road network and then via South Creek which is a major tributary of the Hawkesbury-Nepean River. Council have indicated the site is not flood affected. The stormwater impacts associated with construction and operation are detailed below. Council and DPI did not raise any concerns in relation to stormwater management. Council recommended that a sediment and erosion control plan be provided to manage construction impacts 	<p>Require to Applicant to:</p> <ul style="list-style-type: none"> prepare the stormwater management scheme in consultation with the EPA to mitigate the impacts of stormwater run-off; implement erosion and sediment control measures on-site in accordance with <i>Managing Urban Stormwater: Soils and Construction Vol. 1</i> (Landcom, 2004); describe how the area allocated for the RRF will be vegetated; implement a Leachate Management System for the site which also includes the management of firewater; and find an alternative leachate treatment system should the existing landfill leachate treatment system no longer be available. No waste is to be received at the site until the alternative leachate treatment system has been approved by the Secretary.
<p>Construction Stormwater Impacts</p> <ul style="list-style-type: none"> The Applicant has committed to preparing an erosion and sediment control plan, installing sediment fences and regular monitoring of the sediment basin to provide sediment control throughout the construction phase. 	
<p>Operational Water Impacts</p> <p>Stormwater Storage Capacity</p> <ul style="list-style-type: none"> The impervious surfaces on the site would increase from the proposal. The hydrological modelling indicated that a minimum of 740 m³ of on-site stormwater detention (OSD) is required to achieve the required criteria. This capacity would be sufficient for Stages 1 and 2. The Applicant proposes to use the existing detention pond currently on-site with a capacity of 465 m³ and construct and underground storage tank with a capacity of 275 m³. The Applicant has demonstrated peak discharge for post development will be limited to pre-development discharge rates. However, the mean annual run-off volume will increase as a result of the increase in impervious surfaces from 11 ML/year to 19 ML/year. The Applicant has committed to preparing an OEMP for the whole stormwater system in accordance with Council’s Water Sensitive Urban Design policy. 	
<p>Stormwater - Water Quality</p> <ul style="list-style-type: none"> The Applicant has modelled the post development mean annual load for gross pollutants, total suspended solids (TSS), total phosphorus (TP) and total nitrogen (TN). The modelling indicated the proposed treatment system will meet Council’s pollution load reduction objectives for gross pollutants, TSS, TN and TP for the WTS. However, the TN load will slightly increase by 1 kg/year for Stage 1 which is considered to be minimal. The water quality objectives for Stage 2 will need to be reassessed with the RRF DA. 	
<p>Leachate</p> <ul style="list-style-type: none"> Leachate may be generated by wet weather collections which may lead to fluid being contained within the delivery vehicle and being tipped onto the WTS floor and from the wash down of the tipping floor. Leachate from the waste would be collected in sumps and contained within a drainage system within the tipping hall and load out areas. The leachate would be pumped to the Applicant’s existing leachate treatment plant (located adjacent to the site to the north). Normal operations will generate approximately 10 KL/day of leachate, the Applicant has stated that the leachate treatment plant has adequate capacity to accept the anticipated discharge rates. Following treatment, leachate will be discharged to the public sewer on Quarry Road and therefore will not pose a risk to water quality. 	
<p>Firewater</p> <ul style="list-style-type: none"> Firewater may exceed the capacity of the leachate treatment system. Potentially contaminated fire wastewater could enter the local stormwater network and impact on water quality downstream. The Applicant has not yet finalised the fire wastewater management design and has committed to documenting the fire management measures within the OEMP. To manage the potential construction impacts, the Department has recommended conditions requiring the Applicant to implement standard erosion and sediment controls in accordance with the EPA’s <i>Managing Urban Stormwater: Soils and Construction Volume 2</i> which would be documented in the CEMP. The Department’s assessment concludes that subject to the recommended conditions of consent, water quality would not be significantly impacted upon by 	

Consideration	Recommended Conditions
<p>the operation of the development and that stormwater quality would comply with the relevant pollutant criteria, prior to discharge off-site.</p>	
<p>Soil, Geology, Groundwater and Contamination</p>	
<ul style="list-style-type: none"> • Excavation depths to construct the proposed WTS is expected to be between 2-10 m. The majority of the site will be excavated between 2-5 m and is not anticipated to intercept groundwater. • The EIS included a soil, geology and contamination assessment, prepared by SLR Consulting. • The assessment showed that: <ul style="list-style-type: none"> - existing groundwater and soil contamination is considered to be low; - the potential for saline, acid sulphate soils and groundwater are considered to be low to moderate respectively; - monitoring of landfill gas and groundwater levels are undertaken as part of the current landfill groundwater and landfill gas monitoring program; and - excavations to 10 m (below ground surface) may intercept groundwater and may require dewatering. • The DPI recommended that: <ul style="list-style-type: none"> - a licence would be required should 3 ML of groundwater or greater be extracted; - saline groundwater be considered during detailed design to prevent building and environmental impacts; and - groundwater and landfill gas monitoring be conducted at the site. • The Department’s assessment concludes the site can effectively be managed, subject to conditions. To ensure groundwater impacts are adequately managed the Department has recommended conditions relating to dewatering and contamination. The Department considers the groundwater and landfill gas monitoring should be addressed by the existing landfill development as these impacts are a result of the landfill. 	<p>Require to Applicant to:</p> <ul style="list-style-type: none"> • obtain approvals from DPI if required should dewatering of more than 3 ML be required; and • prepare a protocol for the management of unexpected contamination finds.
<p>Visual Amenity</p>	
<ul style="list-style-type: none"> • The EIS included a Visual Impact Assessment (VIA) prepared by Green Bean Design which concluded the development will have an overall negligible visual significance on surrounding sensitive receiver locations, including residential dwellings and public open spaces as it is located within an industrial estate within the WSEA. • The proposal is considered to be consistent with the character of the surrounding industrial estate and Council’s DCP. • Council raised concern with the visual impacts of the proposal and the staging of the development particularly how the area set aside for Stage 2 will be managed from a visual impact perspective and the lack of details about the architectural treatments. • To address the Council’s concerns, the Department has recommended a Landscape Plan and Building and Material Schedule to ensure the facility has minimal visual impact and satisfactory architectural treatments. The Department has also recommended a condition that requires the Applicant to comply with the relevant standards for lighting and signage. The Department considers the visual impacts of the development would be acceptable. 	<p>Require to Applicant to:</p> <ul style="list-style-type: none"> • prepare a Building and Material Schedule and a Landscape Plan for the development; • provide details on boundary fences; • ensure all external lighting shall comply with <i>Australian Standard AS 4282 1997</i>; and • ensure any new signage shall comply with the <i>State Environmental Planning Policy 64 – Advertising and Signage</i>, as relevant.
<p>Waste Management</p>	
<ul style="list-style-type: none"> • The EIS included a Waste Management Plan (WMP) for Stage 1, prepared by SLR Consulting. • Construction waste is likely to be generated by demolition of existing structures. Waste streams will include vegetation, excavated material, concrete/asphalt, steel, pipes, timber, plasterboard, bricks, glass, batteries and packaging. • Approximately 70% of the predicted construction waste can be re-used on-site or at another development. • Waste removed from the site during construction would be appropriately classified in accordance with the relevant guidelines prior to its removal and transport to an authorised waste facility where relevant. • Operational waste would also be generated from general office activities including packaging. • The WMP recommends scheduled waste audits be undertaken approximately one month into the operational phase of the development to quantify actual waste generation rates generated by the development. • The Department’s assessment concludes that waste from the development can be effectively managed, subject to conditions. 	<p>Require to Applicant to:</p> <ul style="list-style-type: none"> • ensure all waste generated on site is classified in accordance with the EPA’s Waste Classification Guidelines and disposed lawfully.

Consideration	Recommended Conditions
Hazards	
<ul style="list-style-type: none"> The proposed quantities of dangerous goods stored on-site do not trigger the threshold values in <i>State Environmental Planning Policy 33 – Hazardous and Offensive Development</i> (SEPP 33), and the facility is therefore not a potentially hazardous industry. The Department concludes the storage of dangerous goods does not meet the SEPP 33 threshold. To ensure dangerous goods stored on the site will be adequately managed the Department recommends any storage occur in accordance with the relevant Australian Standard. 	Require to Applicant to: <ul style="list-style-type: none"> ensure storage of dangerous goods complies with the relevant Australian Standards.
Greenhouse House Gases (GHG)	
<ul style="list-style-type: none"> The development is estimated to emit a total of 8,310 tonnes of CO₂-e per annum which would be Scope 1, 2 and 3 emissions from electricity consumption and fuel use in trucks and front end loaders. The emissions are estimated to contribute around 0.005% to NSW's net annual emissions of the NSW waste sector, which is considered to be minimal. The building will be designed to comply with all Australian Building Codes and National Construction Code (NCC) and Council requirements and a Section J Energy Efficiency Assessment will be performed prior to construction. Proposed energy efficiency measures at the facility include the installation of energy efficient equipment and infrastructure and truck routes which reduce the distance and effort required. The Department's assessment concludes that GHG from the development can be effectively managed. 	N/A
Flora and Fauna	
<ul style="list-style-type: none"> The site is located within an industrial estate and is highly disturbed and therefore the risk of significant impact to local flora and fauna is considered to be low. It is noted that surrounding areas are part of the Biodiversity Corridor of Erskine Park Industrial Estate, of which the landfill would form a part once closed and revegetated. Given the highly disturbed nature of the site the Department does not consider that any conditions of consent relating to biodiversity are necessary. 	N/A
Contributions	
<ul style="list-style-type: none"> The Department notes that the Section 94 Erskine Park Business Park Contributions Plan 2008 is the mechanism by which regional transport infrastructure and services contributions are collected. The Department has been advised by Council that it has collected all of the contributions under the 2008 Contributions Plan. Consequently, the Department has issued a Satisfactory Arrangement Certificate (see Appendix H) for the proposal. 	N/A

6. CONCLUSION

The Department has assessed the merits of the development having regard to the objects of the EP&A Act and the principles of ecologically sustainable development.

The proposal is consistent with the NSW Government's direction in achieving the targets the *Waste Avoidance and Resource Recovery Strategy* by assisting in diverting recyclable waste away from landfills and increasing the amounts of waste recycled.

The key issue associated with the development relate to potential odour impacts on surrounding industrial and residential sensitive receivers, traffic and noise impacts. Overall, the Department's assessment concludes that:

- conceptually, the location of the WRMF is considered beneficial as it is located close to the M4 and M7 Motorway and has sufficient buffer distance from sensitive receivers;
- the RRF will be subject to a separate DA and Secretary Environmental Assessment Requirements (SEARs) to ensure any cumulative impacts of the proposal are assessed;
- the proposal is located within the WSEA which has sufficient infrastructure capacity to cope with such a facility;

- the Applicant has already paid contributions towards the road infrastructure and services for the region;
- the WTS (Stage 1) will be fully enclosed, kept under negative pressure and include an scalable air pollution control system to ensure odour impacts are adequately managed;
- the facility would meet relevant air and odour criteria at sensitive receivers subject to air pollution control devices being installed;
- the facility would meet the relevant noise criteria at sensitive receivers;
- traffic generated by the facility can be accommodated on the local and regional road network without any significant impact on safety or level of service;
- the facility would provide a range of environmental and economic benefits for the region, through resource recovery and the provision of long term operational jobs; and
- the proposal is consistent with the strategic direction for waste management in NSW.

Given the above, the Department's assessment concludes the proposal would be in the public interest, and recommends consent be granted subject to conditions.

7. RECOMMENDATION

It is recommended that the Planning Assessment Commission:

- **consider** the findings and recommendations of this report;
- **approve** the development application under section 89E of the EP&A Act; and
- **sign** the attached development consent (refer Appendix A).

Prepared By:

 11.8.16

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15/8/16.



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