NSW GOVERNMENT

Expansion of the Concrush Resource Recovery Facility

State Significant Development Assessment (SSD 8753)

March 2020

Cover photo

Concrush Resource Recovery Facility, Teralba

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Glossary

Abbreviation	Definition
AHD	Australian Height Datum
Applicant	Concrush Pty Ltd
AS	Australian Standard
C&D	Construction and Demolition
CIV	Capital Investment Value
Construction	The demolition of buildings or works, carrying out of works, including earthworks, erection of buildings and other infrastructure covered by this consent
Consent	Development Consent
Council	Lake Macquarie City Council
Department	Department of Planning, Industry and Environment
Development	The Development as described in the EIS and RTS for the staged expansion and increase in processing capacity of the Concrush Resource Recovery Facility
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
Garden and Wood Waste	As defined in the *Protection of the Environment Operations Act 1997*
General solid waste (non-putrescible)	As defined in the *Protection of the Environment Operations Act 1997*
LEP	Local Environmental Plan
Minister	Minister for Planning and Public Spaces
OEH	Office of Environment and Heritage

Abbreviation	Definition
OEMP	Operational Environmental Management Plan
RMS	Roads and Maritime Services
RNP	Road Noise Policy
RRF	Resource Recovery Facility
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Planning Secretary of the Department of Planning, Industry and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TIA	Traffic Impact Assessment
tpa	Tonnes per annum
WARR	Waste Avoidance and Resource Recovery Strategy
Waste	As defined in the *Protection of the Environment Operations Act 1997*

Executive Summary

Introduction

Concrush Pty Ltd (the Applicant) has lodged a State significant development application (SSD 8753) for the expansion of the Concrush Resource Recovery Facility located at 21 Racecourse Road, Teralba (the site) in the Lake Macquarie local government area (LGA).

The existing resource recovery facility (RRF) is located 14 kilometres (km) south west of the Newcastle central business district (CBD) and covers an area of approximately 2.4 hectares (ha) of industrial land adjacent to Cockle Creek and the Main North Rail Line. In 2002, Lake Macquarie City Council (Council) granted development consent for concrete crushing, grinding and separating works at the RRF. The RRF is located on an 18 ha site owned by B&S Scrap Metal Pty Ltd (B&S Scrap Metal), trading as Lucky's Scrap Metals. The site is located within an industrial precinct of Teralba and is surrounded by industrial land uses including scrap metal recycling, car wreckers and coal mining. The nearest residential community is located in the Bunderra residential estate, approximately 200 metres (m) to the east, on the opposite side of Cockle Creek.

The Development

The Applicant is seeking consent to:

- increase the area of the site from 2.4 ha to 4.8 ha
- increase (in two stages) the RRF's processing capacity of construction and demolition (C&D) waste from 108,000 tonnes (t) per annum (tpa) to 250,000 tpa
- increase the maximum storage capacity increase from 40,000 t to 150,000 t at any given time
- increase the hours of operation from 7 am to 4 pm (Monday to Saturday) to 7 am to 10 pm (Monday to Saturday) and 8 am to 6 pm (Sundays and Public Holidays)
- process an additional waste stream including crushed glass
- upgrade the stormwater and leachate management system
- establish an aeration system for garden and wood waste pasteurisation

The proposed development (the development) is consistent with the NSW Government's direction in achieving the targets within the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021*. In particular the development would assist in the recovery of C&D wastes.

The proposed development has a capital investment value (CIV) of approximately $ 1,100,000 and is expected to create two additional fulltime operational jobs and five construction jobs.

The development is classified as State significant development (SSD) pursuant to section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it meets the criteria 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 an RRF that handles more than 100,000 tpa of waste. Consequently, the Minister for Planning and Public Spaces is the consent authority for the development.

Engagement

The Department of Planning, Industry and Environment (the Department) exhibited the Environmental Impact Statement (EIS) from 16 November 2018 until 14 December 2018 and received a total of 31 submissions, including

12 from public authorities and 19 from the public. Of the 31 submissions received, 14 objected to the development.

Key concerns raised in submissions related to dust, traffic, noise, surface water discharge, groundwater and soil contamination. The Applicant submitted Response to Submission (RtS) reports in May 2019 and July 2019 to address and clarify some of the matters raised in the submissions.

There were delays during the assessment of the development application because of several unresolved issues which were not adequately addressed in the EIS and RtS. These issues and their resolution are discussed below.

- surface water and leachate management and surface water discharge management
  - the Department and the Environment Protection Authority (EPA) raised concerns that the EIS did not provide an adequate characterisation of the potential pollutants in the proposed sedimentation dams, leachate dam and the proposed surface water discharge. Previous studies undertaken at similar RRFs identified that surface water contained elevated levels of heavy metals and contaminants in waste stockpiles were mobilised during rainfall, resulting in contaminated surface water and groundwater.
  - the EPA was not satisfied with the additional information submitted by the Applicant in the RtS reports. However, the Department and the EPA consider a rigorous pre-construction condition framework can ensure surface water management issues can be mitigated. This includes conditions requiring comprehensive site establishment works, discharge characterisation analysis and a discharge verification and mitigation study.
- traffic access and egress to the site
  - Council raised concern regarding the Applicant's proposed turning treatment for vehicles accessing the site. In September 2019, following review of the RtS reports and a meeting between the Council and the Applicant, the Applicant agreed to construct a turning treatment for northbound vehicles turning left into the site and a right turn treatment for southbound vehicles. A cycle lane (northbound) and a shoulder southbound would also be provided prior to the commencement of Stage 1 operations.
- vehicle length restriction on The Weir Road
  - Council initially raised concern regarding heavy vehicles travelling on The Weir Road (north of the site) related to the structural integrity of the Barnsley Weir and proposed to implement a five-tonne load limit on The Weir Road. The Applicant objected to this restriction and in response Council recommended a condition requiring an annual haulage contribution under Council's section 7.11 development contributions plan. In December 2019, Council advised it had approved a vehicle length restriction on the crossing of the Barnsley Weir. The restriction would prohibit access to The Weir Road for rigid trucks greater than 15 m and articulated trucks where a total length is no greater than 19 m (with the truck length of no greater than 12.5 m). Council advised that relevant signage will be erected in late February 2020. The Department sought clarification from the Applicant about how the vehicle length restriction would impact traffic movements and the existing traffic modelling. The Applicant advised this restriction is unlikely to impact traffic movements as the majority of articulated vehicles accessing the site would be no greater than 19 m and rigid trucks would be no greater than 15 m.

The Department's assessment of the application has considered all relevant matters under section 4.15 of the EP&A Act and the objects of the EP&A Act, including the principles of ecologically sustainable development. The Department identified the following key issues for assessment:

- stormwater and leachate management
- traffic and access
- air quality

The Department's assessment concluded any residual impacts can be mitigated and/or managed to ensure an acceptable level of environmental performance, subject to the recommended conditions of consent. In summary, the development would:

- be capable of receiving and processing up to 250,000 tpa of waste, including storing up to 150,000 t at any given time
- positively contribute to the objectives of the NSW Waste Avoidance and Resource Recovery Strategy for C&D waste
- upgrade and contemporise the environmental controls at the site to reflect current practice for outdoor RRFs
- meet relevant air quality and noise criteria at residential receivers
- generate traffic, which could be accommodated on the local and regional road network without any significant impacts on safety, capacity or efficiency
- provide a range of environmental and economic benefits for the region through resource recovery.

Consequently, the Department considers the development is in the public interest and is recommended for approval subject to conditions of consent.

Contents

1. Introduction

1.1 The Department's Assessment

This report details the Department of Planning, Industry and Environment's (the Department) assessment of the State significant development (SSD 8753) for the expansion of the Concrush Resource Recovery Facility (RRF). The proposed development (the development) is to increase the storage and processing capacity for construction and demolition (C&D) waste at the RRF. The development is located at 21 Racecourse Road, Teralba (the site), approximately 14 kilometres (km) south west of Newcastle in the Lake Macquarie Local Government Area (LGA) (see **Figure 1**).

The Department's assessment has considered all documentation submitted by Concrush Pty Ltd (the Applicant) including the Environmental Impact Statement (EIS), Response to Submissions (RtS), supplementary information, and submissions received from government authorities, stakeholders and members of the public. The Department's assessment also considers the legislation relevant to the development.

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

Figure 1 | Location of the Concrush Resource Recovery Facility

1.2 Development Background

The Applicant has been operating the existing RRF since 2002 under a development consent (DC/02/00558/1N) issued by Lake Macquarie Council (the existing consent). The existing consent permits concrete crushing, grinding and separating works, including the processing up to 108,000 tonnes (t) per annum (tpa) of C&D waste, the storage of 40,000 t of C&D waste at any given time and maximum waste stockpile heights of no greater than 10

m. The RRF processes waste to be sold for reuse in the Lake Macquarie construction market under a resource recovery exemption permitted under the *Protection of the Environment Operations (Waste) Regulation 2014* (the Waste Regulation) and currently operates under environment protection licence (EPL) Number (No.) 13351 issued by the Environment Protection Authority (EPA).

The development is located on the northern part of a 18 ha site owned by B&S Scrap Metal Pty Ltd (B&S Scrap Metal), legally known as Lot 2 DP 220347. B&S Scrap Metal leases 2.4 ha of land to the Applicant for the existing RRF, which contains two weighbridges, a weighbridge office, site office (demountable), maintenance shed, lunch room and amenities, two crushers and screening areas, concrete product bays and a staff parking area (see **Figure 2**). All existing waste processing and storage occurs outdoors.

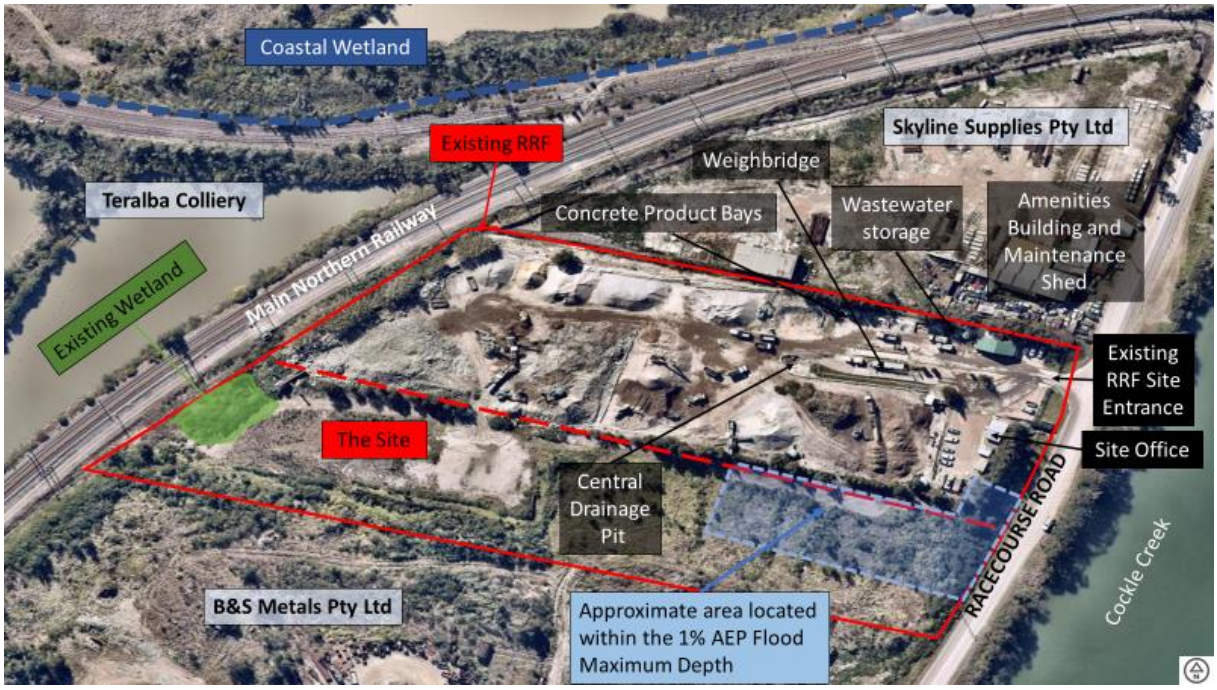

Figure 2 | Layout of the Existing RRF

1.3 Site Description

The development would expand the existing RRF further to the south into the B&S Scrap Metals land and the expanded site (the site) would have an area of 4.8 ha as shown in **Figure 3**.

The site is located within the Lower Cockle Creek Floodplain in the Cockle Creek Estuary catchment that forms part of the broader Lake Macquarie catchment. Cockle Creek is approximately 40 m from the edge of the site to the east. The lower portion of the south east corner of the site is located within the 1 % Average Exceedance Probability (AEP) flood event (see **Figure 3**).

Most of the site is cleared and has been extensively disturbed, with a small area in the southern portion dominated by exotic vegetation. A small area of degraded wetland is located on the western boundary of the site (see **Figure 2**).

The southern portion of Lot 2 DP 220347 is listed on the EPA register of sites declared as significantly contaminated under the *Contaminated Land Management Act 1997* (CLM Act). This 'notified area' was occupied by Lucky's Scrap Metal at the time of the declaration notice in 1998. The notified area is located approximately 150 m to the south of the site (see **Figure 3**).

Figure 3 | The Development and Surrounds

1.4 Surrounding Land Uses

The site is in the industrial precinct of Teralba and is surrounded by a variety of different landuses, as shown in **Figure 3**. These include:

- Skyline Supplies Pty Ltd, a car wrecking business, located immediately to the north
- Cockle Creek, Bundarra Estate (a residential and aged care residential estate) and the former Pasminco Cockle Creek Smelter and remediation site, located to the east
- B&S Scrap Metal's scrap metal yard, located immediately to the south
- the Main Northern Railway (immediately adjacent) and Teralba Colliery to the west

The nearest residential receivers are located approximately 200 m to the east at the Oak Tree Retirement Village and Bunderra Estate which is physically separated from the site by Cockle Creek. The residential suburb of Argenton is located 1.1 km to the north east and the residential suburbs of Teralba and Speers Point are located 1.3 km to the south (see **Figure 1**). Coastal wetlands, as defined under the State Environmental Planning Policy (Coastal Management) 2018, are located approximately 100 m north and approximately 400 m south of the site, however the site does not form part of a coastal wetland.

1.5 Surrounding Road Network

The site is located on Racecourse Road which is accessed from the north via The Weir Road, Northville Drive and Wakefield Road and from the south by York Street and Toronto Road North. The southern route is a major heavy vehicle route connecting to the Pacific Motorway (see **Figure 1**). Vehicle movements north of the site are restricted to smaller vehicles due to a low clearance bridge (4.2 m) under the Main Northern Railway and during flooding at the Barnsley Weir, The Weir Road.

2. Project Description

2.1 Description of the Development

The major components of the development are summarised in **Table 1**, shown in **Figure 4** and **Figure 5**, and are described in detail within the EIS and the RtS documents included in **Appendix A**.

Table 1 | Main Components of the Development

Aspect	Description
Development Summary	**Expansion and staged increase in the processing capacity of the RRF to 250,000 tpa of C&D and garden and wood waste, with storage of up to 150,000 t at any given time**
Site Area	• 4.8 ha
Construction	Construction to occur over two stages. • Stage 1 (see **Figure 4**): o operational expansion to include all 4.8 ha of the site o establishment of a 0.5 m clean fill capping layer over the 2.4 ha expansion area o construction of all hardstand areas, consisting of 200 mm thick recycled road base o re-configuration of existing exit only weighbridge to allow for vehicle exit and entry to facilitate entry to the site o establishment of the garden and wood waste stockpile pad including raising the site above RL 2.35 m AHD and installation of the leachate barrier system, leachate dam and flood mitigation bund o widening of the site access and installation of a sliding gate o establishment of a wet concrete washout facility o construction of Racecourse Road site access works o construction of a production compound by relocating the maintenance shed, lunch room and toilet o construction of concrete block noise wall on the eastern and southern boundary of the raw waste stockpile and processing pad o construction of a stormwater management system including sediment basins, drainage swales, water storage tanks and sprinkler systems o construction of a wheel wash, landscaping mounds, fencing, power line extension and lighting o establishment of a retail area o sealing of internal access roads o installation of water tanks and fencing • Stage 2 (see **Figure 5**): o relocation and establishment of the main weighbridge for heavy vehicles o construction of a new weighbridge office o reconfiguration of the retail area (placement of concrete blocks) o sealing of internal roads

Aspect	Description
	○ installation of a trommel screening machine for garden and wood waste ○ establishment of an aeration system for garden and wood waste pasteurisation
Construction Timeframe	• Stage 1: up to 10 weeks • Stage 2: up to 3 weeks
Operation	Operations to occur over two stages: • Stage 1: ○ increase in maximum processing capacity to 200,000 tpa of C&D waste, which includes no more than 5,000 t of garden and wood waste per year ○ increase in maximum storage capacity to 150,000 t at any given time, which includes 200 t of garden and wood waste at any given time • Stage 2: increase in maximum processing capacity to 250,000 tpa of C&D waste, which includes no more than 5,000 t of garden and wood waste per year
Waste Types	The site would be permitted to store and process the following waste: • demolished concrete • bricks/pavers/roof tiles • ceramic wall and floor tiles • concrete washout • wet concrete • virgin excavated natural material (VENM) • excavated natural material (ENM) • road base • asphalt • ballast • crushed glass • garden and wood waste
Processing Equipment	• traxcavator • grader • front end loader • excavator • water cart • trommel screening machine for garden and wood waste • aeration system for garden and wood waste pasteurisation • pug mill
Operational Traffic	480 two-way vehicle trips per day (vpd) (comprising of 112 small vehicle trips per day and 368 heavy vehicle trips per day)
Hours of operation	Increase the hours of operation from 7 am to 4 pm (Monday to Saturday only) to 7 am to 10 pm (Monday to Saturday) and 8 am to 6 pm (Sundays and Public Holidays)
Capital investment value	$ 1,111,514
Employment	• two additional full-time operational jobs (a total of nine full-time operational jobs) • five construction jobs

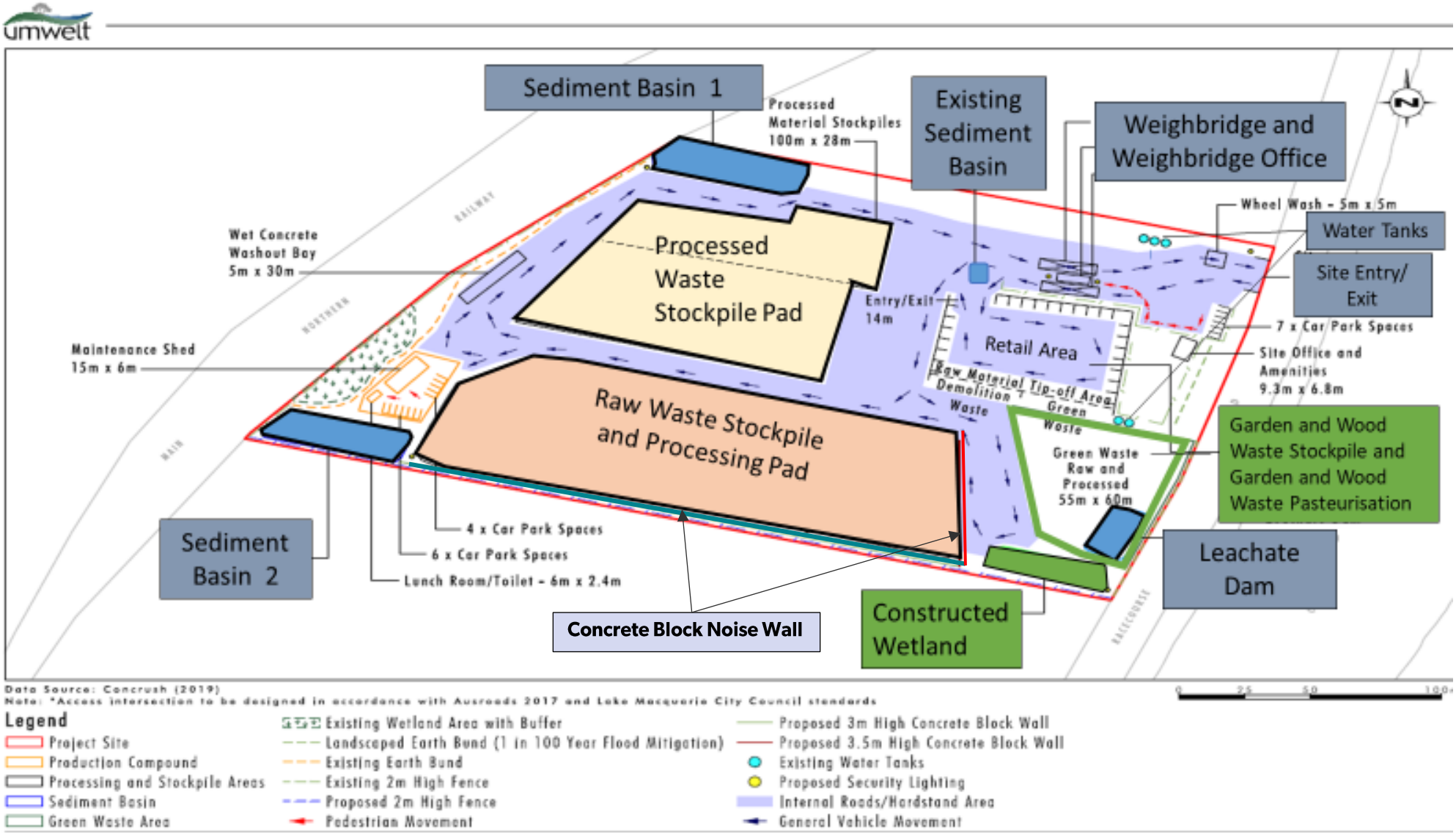

Figure 4 | Proposed Stage 1 Layout

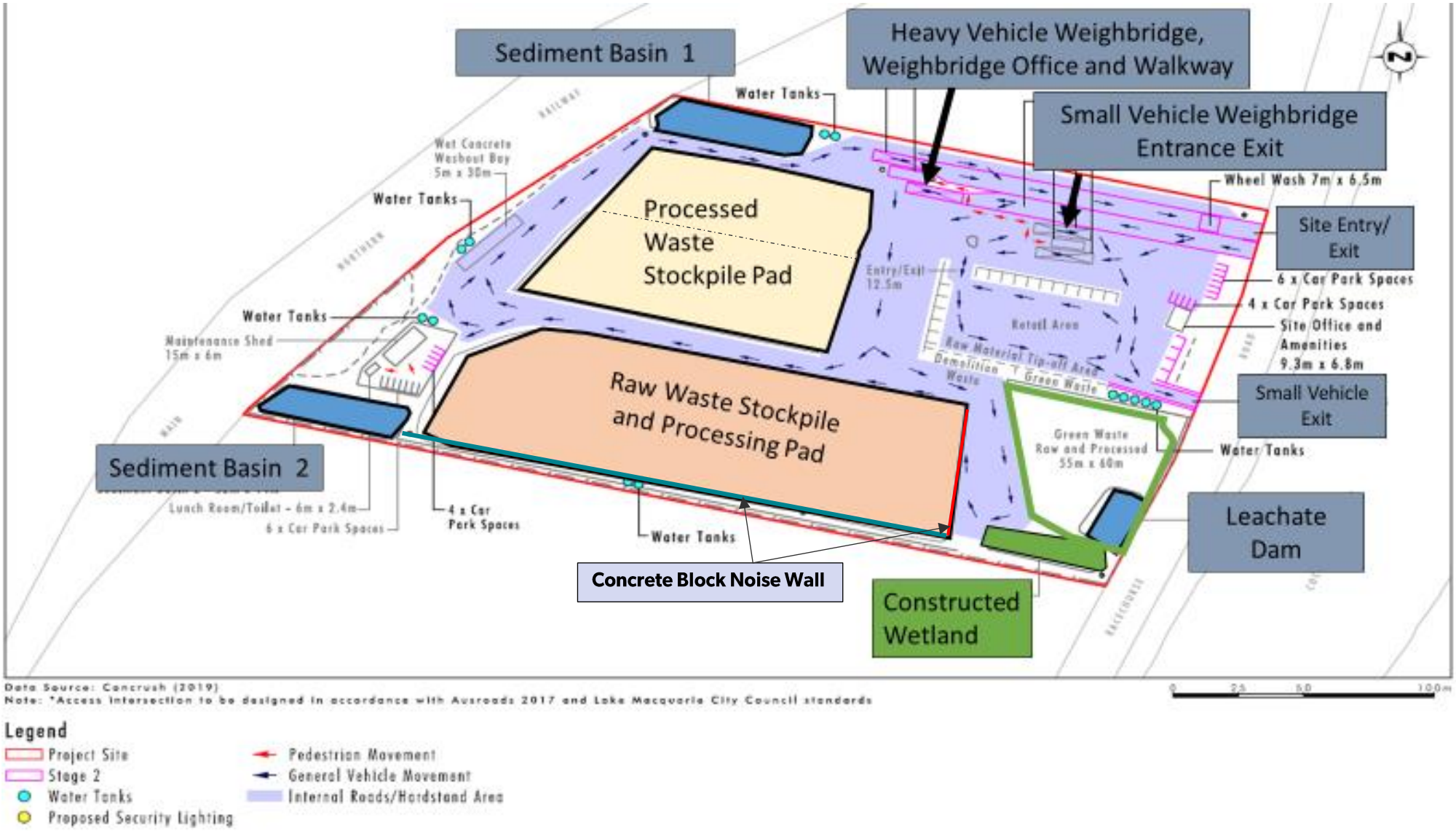

Figure 5 | Proposed Stage 2 Layout

2.2 Process Description

The purpose of the development is to receive incoming C&D, garden and wood waste and process this material into:

- recycled road base, pavement material, bedding material, drainage aggregate and landscaping applications
- coarse and fine mulches for landscaping and rehabilitation applications

The Applicant has advised the target waste recovery rate for the development would remain at 99 %. A description of the proposed waste processing and blending process is provided below.

Waste Arrival

Waste would be transported to the site using semi-trailers, truck and dogs, tippers and light vehicles with trailers. On arrival, the load would be visually inspected by the weighbridge operator from either a raised walk way or via cameras.

The current operations provide for separate entry and exit weigh points. The Applicant proposes to maintain these for Stage 1 operations. Under Stage 2 operations, heavy vehicles would report to the new weighbridge area and office at the northern end of the site and small vehicles would continue using the existing weighbridge (see **Figure 5**).

Waste Rejections

Staff would inspect the waste before, during and after unloading to determine waste acceptability. If any Non-Conforming Waste (NCW) such as asbestos, plasterboard, plastic or engineered wood waste is detected during unloading, the load would be rejected, immediately reloaded and removed from the site. A rejected load confirmation form would be completed by staff, provided to the vehicle operator, recorded in the rejected loads register and reported to the EPA.

Bulk sampling of waste would be undertaken from the raw feed waste stockpiles area in accordance with the resource recovery exemptions and if any NCW waste is detected it would be segregated from the area and removed from the site.

Waste Acceptance

Heavy vehicles that are cleared to unload would be directed to the raw feed waste stockpile area and the waste would be spread to further identify any asbestos or NCW. This operational area would be approximately 1.1 ha in size and capable of storing up to 110,000 t of waste at any given time. Garden and wood waste would arrive by light vehicles only and be unloaded into the retail area. All light vehicles would be directed to one of two tipping bays (either C&D waste or garden and wood waste) located in the retail area. The retail bays would be approximately 20 m wide by 12 m deep by 2 m high and hold up to 480 m^3 or up to 1,000 t of waste per bay.

A breakdown of the predicted incoming waste streams, based on the Applicant's existing monthly weighbridge records, is provided in **Table 2**. The Applicant proposes the percentage split of the incoming waste streams would remain the same as existing during both the Stage 1 operations and Stage 2 operations.

Table 2 | Approximate Incoming Waste Streams

Waste	Approximate incoming throughput (tpa)	Percentage of incoming waste stream
Demolished concrete	97,000	38 %
Mixed loads concrete brick, pavers, tiles, road base and asphalt	75,000	30 %
Concrete washout	20,000	8 %
Bricks/pavers/roof tiles	15,000	6 %
Road bases and quarried materials,	15,000	6 %
Asphalt	10,000	4 %
Wet concrete	6,000	1.6 %
Clean rock/sandstone/VENM/ENM	5,000	2 %
Garden and wood waste	4,000	1.6 %
Ceramic wall and floor tiles	1,000	0.4 %
Ballast	1,000	0.4 %
Crush Glass	1,000	0.4 %
Total	250,000	100 %

Resource Recovery and Processing (C&D waste)

C&D waste would be processed at the raw waste stockpile and processing area where it would be crushed, screened and blended depending on the characteristics of the waste and the desired specification of the end user. The Applicant would monitor the proposed storage limits based on the proposed limit of 150,000 t at any given time.

Once the C&D waste is processed, it would be transported to the processed waste stockpile pad for storage in designated areas separated by concrete blocks, awaiting transport and reuse off-site. Separated scrap metal, including reinforced steel, would be stored in a skip bin and collected by a contractor for recycling at a licenced facility.

During Stage 1 operations, the Applicant proposes to store processed C&D waste on two adjacent stockpile pads capable of storing up to 28,000 t and 45,400 t of processed waste at any given time.

During stage 2 operations, the Applicant proposes to change the internal road configuration to align with the new weighbridge. The larger stockpile pad would remain the same and the smaller stockpile pad would then be reduced in size and would be capable of holding up to 16,000 t of processed C&D waste. Processed waste would be tested in accordance with the Applicant's Sample, Test and Material Management Plan. If testing identifies the waste does not meet the exemption requirements, then the stockpile would be isolated and further testing carried

out. The two stockpile pads would allow separation of processed materials clearly delineating certified waste from non-certified waste.

After processing, the separated C&D waste would either remain on the processing pad for bulk removal by heavy vehicles or is moved by a front end loader to the retail area and stored within concrete bays for sale to the general public. The retail area bays would be approximately 5 m wide by 5 m deep by 2 m high and hold approximately 50 m^3 or up to 100 t per bay depending on the density of the waste.

Garden and Wood Waste Processing

After arrival, garden and wood waste would be transferred to the garden and wood waste stockpile pad and a mobile mulcher would mulch the stockpiled garden and wood waste. All garden and wood waste storage and processing would occur outdoors.

Stage 2 operations would introduce garden and wood waste pasteurisation (a form of composting that reduces plant pathogens in the compost) at the garden and wood waste stockpile pad with three to four composting rows depending on market demand. An aeration system with four computer-controlled fans would push air through perforated pipes underneath the pasteurisation piles, allowing more control of oxygen levels in the pasteurisation process. Pasteurisation times would depend on the temperature and moisture content of the garden and wood waste and would generally be between 20 and 30 days duration.

Composted garden and wood waste would be tested in accordance with the General Pasteurised Garden Organics Order 2016. Once pasteurised, the composted waste would remain in stockpiles on the garden and wood waste stockpile pad until sold to the general public for landscaping.

Removal from the Site

Processed waste would be removed from the site either by heavy vehicle from the processing pad or small vehicles (from the retail area). Waste would be loaded into vehicles by front end loader or hand spade and exit via the weighbridge. Further details of onsite truck movements are provided in **Section 6.2**. Destinations for processed material outputs would vary depending on the type of waste and market demand. The majority of the processed waste would be sold as recycled road base, pavement material, bedding material, drainage aggregate and landscaping applications.

2.3 Applicant's Need and Justification for the Development

The Applicant has operated the RRF since 2002 and maintains the market demand for the disposal of waste and the demand for buying processed waste has increased across the Newcastle and Lake Macquarie region, with the demand likely to further increase due to population growth. The Applicant argues that constraints at the existing RRF restrict processing capacity and its ability to compete in the resource recovery market.

The Applicant believes expanding the RRF at its current location is more appropriate than relocating to a different area given that the adjoining unused and disturbed land to the south can be utilised.

Furthermore, the Applicant has identified the expansion of the existing site would:

- divert reusable waste from landfill to ensure recovery and recycling of resources from waste streams
- contribute to the achievement of the targets for increased recycling and landfill diversion in the NSW Waste Avoidance and Resource Recovery Strategy 2014-21
- reduce the volume of extractive material needing to be quarried to meet the market demand for resources.

3. Strategic Context

NSW Waste Avoidance and Resource Recovery Strategy

Reducing waste and keeping materials circulating within the economy are priorities for the NSW Government, as set out in NSW 2021. To meet this important challenge, the government developed the NSW Waste Avoidance and Resource Recovery Strategy (WARR Strategy) which sets waste recovery targets for C&D, commercial and industrial (C&I) and municipal solid waste (MSW) material. By 2021-2022, the WARR Strategy requires an increase (from 2010-11) in recycling rates as follows:

- C&I from 5 7% to 70 %
- C&D from 75 % to 80 %
- MSW from 52 % to 70 %
- increase in the waste diverted from landfill from 63% to 75 %.

The Applicant's target recycling rate for the site is greater than 99 %, which exceeds the WARR Strategy target for C&D waste. The development would therefore contribute to the State's recovery performance for the C&D sector.

Hunter Regional Plan 2036

The Hunter Regional Plan (HRP) sets out the Government's vision for Newcastle, Lake Macquarie, Port Stephens, Maitland and Cessnock LGAs until 2036, to support an increased demand for dwellings and jobs.

A key priority of the HRP is to strengthen the region's economy, manage natural resources, provide greater housing choices and employment and deliver infrastructure to support growth and communities. The development supports the strategic aims of the HRP by reducing waste and keeping materials circulating within the economy, providing construction material for use in the Hunter region and providing additional employment opportunities near existing residential developments.

Hunter Region Waste Avoidance and Recovery Strategy

In order to meet recycling targets, nine Councils in the Hunter region developed the Hunter Region Waste Avoidance and Recovery Strategy (HRWARS) which sets out a regional vision, objectives and targets for waste avoidance and recovery across the Region. The development is consistent with Objective 2.2 of the HRWARS, which aims to optimise C&D recycling in the region.

4. Statutory Context

4.1 State Significant Development

The development is SSD pursuant to section 4.36 of *Environmental Planning and Assessment Act 1979* (the EP&A Act) because it involves development for the purpose of a resource recovery or recycling facility that handles more than 100,000 tpa of waste, which meets the criteria in clause 23(3) of Schedule 1 in the State Environmental Planning Policy (State and Regional Development) 2011.

4.2 Permissibility

The IN1 General Industrial land use zone applies to the site under the Lake Macquarie Local Environment Plan 2014 (LMLEP). Development for the purposes of a resource recovery or recycling facility is permissible with consent within the IN1 Zone. Therefore, the Minister for Planning and Public Spaces (the Minister) or a delegate may determine the carrying out of the development.

4.3 Consent Authority

The Minister is the consent authority for the development under section 4.5 of the EP&A Act. On 9 March 2020, the Minister delegated the functions to determine SSD applications to the Executive Director, Regions, Industry and Key Sites where:

- the relevant local council has not made an objection;
- there are fewer than 50 public submissions in the nature of objections; and
- a political disclosure statement has not been made.

The Department received 31 submissions, including 12 from public authorities and 19 from the public. Of the 19 public submissions received, 14 objected to the development. No reportable political donations were made by the Applicant in the last two years and no reportable political donations were made by any persons who lodged a submission.

Accordingly, the application can be determined by the Executive Director, Regions, Industry and Key Sites under delegation.

4.4 Other Approvals

Section 4.42 of the EP&A Act requires further approvals to be obtained, considered or determined in a manner that is consistent with any Part 4 approval for SSD projects under the EP&A Act. In the case of the development, an EPL will need to be applied for and issued by the EPA under the *Protection of the Environment Operations Act 1997* (POEO Act).

4.5 Mandatory Matters for Consideration

Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is set out in **Table 3**. In summary, the Department is satisfied the development is consistent with the requirements of section 4.15 of the EP&A Act.

Table 3 | Consideration of Matters from Section 4.15 of the EP&A Act

Matter	Consideration
a) the provisions of: (i) any environmental planning instrument	• Detailed consideration of the provisions of all environmental planning instruments (including draft

Matter		Consideration
(ii)	any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved)	instruments subject to public consultation under this Act) that apply to the development is provided below. • The Applicant has not entered into any planning agreement under section 7.4. • The Department has undertaken its assessment of the development in accordance with all relevant matters as prescribed by the regulations, the findings of which are contained within this report.
(iii)	any development control plan (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4	
(iv)	the regulations (to the extent that they prescribe matters for the purposes of this paragraph).	
b)	the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	• The Department has considered the likely impacts of the development in detail in **Section 6** of this report and concludes that all environmental impacts can be appropriately managed and mitigated through the recommended conditions of consent.
c)	the suitability of the site for the development	• The development is an expansion of an existing RRF located on industrial zoned land which is permissible with development consent.
d)	any submissions made in accordance with this Act or the regulations	• All matters raised in submissions have been summarised in **Section 5** of this report and given due consideration as part of the assessment of the development in **Section 6** of this report.
e)	the public interest	• The development would generate two additional operational jobs and provides environmental benefits through the recycling and reuse of waste. • On balance, the Department considers the development is in the public interest.

4.6 Environmental Planning Instruments

Under section 4.15 of the EP&A Act, the consent authority, when determining a development application, must take into consideration the provisions of any environmental planning instrument (EPI) and draft EPI (that has been subject to public consultation and notified under the EP&A Act) that apply to the development.

The Department has considered the development against the relevant provisions of several key EPIs including:

- *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)*
- *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)*
- *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*

Development Control Plans (DCPs) do not apply to SSD under Clause 11 of the SRD SEPP. However, the Department has considered the relevant provisions of the Lake Macquarie DCP 2014 in its assessment of the development in **Section 6** of this report.

Detailed consideration of the provisions of all EPIs that apply to the development is provided in **Appendix C** and is satisfied the development generally complies with the relevant provisions of these EPIs.

4.7 Public Exhibition and Notification

In accordance with section 2.22 and Schedule 1 to the EP&A Act, the development application and any accompanying information are required to be made publicly available for at least 28 days. The application was on public exhibition from **16 November 2018** until **14 December 2018** (29 days). Details of the exhibition process and notifications are provided in **Section 5** of this report.

4.8 Objects of the EP&A Act

In the application, the consent authority must consider whether the development is consistent with the relevant objects of the EP&A Act. These objects are detailed in section 1.3 of the EP&A Act. The Department has considered the objects of the EP&A Act, including the facilitation of Ecologically Sustainable Development (ESD), in its assessment of the application (see **Table 4**).

Table 4| Considerations of the Objects of the EP&A Act

Object	Consideration
1.3(a)	*To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources* The development would promote social and economic welfare and a better environment by diverting recyclable and reusable wastes away from landfill thereby extending the life of landfill operations, producing recycled waste for re-use and reducing the demand for natural resources.
1.3(b)	*To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment* The Department's assessment has considered all socio-economic and environmental considerations in a single holistic assessment and is satisfied the development can avoid potentially serious or irreversible environmental damage whilst providing tangible socio-economic and environmental benefits. The Department is satisfied that the development can be carried out in a manner that is consistent with the principles of ESD.
1.3(c)	*To promote the orderly and economic use and development of land* The development is a permissible use which would promote the orderly and economic development of land which is zoned for industrial land uses and would provide employment for two additional operational employees and promote economic growth in the Lake Macquarie area.
1.3(e)	*To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats*

Object	Consideration
	The Department's assessment in **Section 6** of this report demonstrates that with the implementation of the recommended conditions of consent, the impacts of the development can be mitigated and/or managed to ensure the environment is protected.
1.3(i)	*To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State* The Department has engaged in consultation with, and given due consideration to, the technical expertise and comments provided by other Government authorities, including Council. This is consistent with the object of sharing the responsibility for environmental planning between the different levels of government in the State.
1.3(j)	*To provide increased opportunity for community participation in environmental planning and assessment.* The application was exhibited in accordance with clause 9 of Schedule 1 of the EP&A Act to provide public involvement and participation in the environmental planning and assessment of this application.

4.9 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in section 6(2) of the *Protection of the Environment Administration Act 1991* Section 6(2), which 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

(d) improved valuation, pricing and incentive mechanisms.

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

4.10 Environment Protection and Biodiversity Conservation Act 1999

Under the *Environmental Protection and Biodiversity Conservation Act 1999* (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 and concluded the development would not impact on any of these matters and is therefore not a 'controlled action'. As such, the Applicant determined a referral to the Commonwealth Government was not required.

5. Engagement

5.1 Consultation by the Applicant

The Applicant undertook a range of consultation with key stakeholders throughout the preparation of the EIS including:

- Council and government agencies
- residential receivers
- community groups

5.2 Department's Engagement

In accordance with clause 9 of Schedule 1 of the EP&A Act, the Department:

- made the EIS and information submitted for the application publicly available from **16 November 2018** until **14 December 2018**:
    - on the Department's website
    - at Service NSW Centres
    - at Council's administration building at Lake Macquarie City Council
- notified landowners in the vicinity of the site about the exhibition period by letter
- notified relevant State government authorities and Council
- advertised the exhibition in the *Newcastle Weekly*

5.3 Summary of Submissions

A total of 31 submissions were received on the during the exhibition period, including 12 from government and 19 from the general public. Of the 31 submissions received, 14 objected to the development. A summary of the issues raised in submissions is provided below, with a copy of each submission included in **Appendix E**.

5.3.1 Key Issues – Government Agencies

Council did not object to the development but raised the following concerns:

- safety at the site access off Racecourse Road due to the number of proposed heavy vehicle movements and evidence of existing road deterioration
- heavy vehicle movements as a result of Council's proposed 5 t load limit on The Weir Road
- the visual impact assessment (VIA) and requirements for a landscape buffer
- noise impacts on residential receivers
- further details on the proposed weighbridge office and amenities building
- section 7.11 development contributions
- recommended conditions requiring an air quality management plan (AQMP), erosion and sediment control plan and a construction site remedial action plan (RAP).

The **EPA** did not object to the development but raised the following concerns:

- insufficient information was provided in the EIS to assess stormwater quality
- revisions required to the Noise Impact Assessment (NIA) and the Air Quality Impact Assessment (AQIA)
- did not support the Applicant's proposal to undertake activities outside standard construction and operational hours
- requested further information on waste quantities and waste streams

- contamination on the existing B&S Scrap Metals site
- recommended post approval conditions to address contamination including the requirements to undertake a Data Gap Investigation (DGI), Environmental Management Plan (EMP) and RAP.

Fire and Rescue NSW (FRNSW) did not object to the development and requested the Applicant confirm its commitment to adopting recommended fire safety measures and consideration being given to FRNSW's Fire Safety Guidelines – Fire Safety in Waste Facilities.

Department of Planning, Industry and Environment (DPIE) (Environment, Energy and Science Group) (EESG) (formerly Office of Environment and Heritage) did not object to the development and was satisfied with the Biodiversity Assessment (BA). EESG requested an Aboriginal Cultural Heritage Assessment (ACHA) be undertaken in consultation with Aboriginal stakeholders. EESG also requested a review of the emergency management procedures to ensure that any increased flood risk be appropriately managed.

Department of Industry (DOI) (Water and Natural Resource Access Regulator) did not object to the development and requested a test pit be constructed at both the leachate pond and artificial wetland to determine water table depth against the intended excavation depths of the leachate dam and artificial wetland. DOI requested an Acid Sulphate Soil Management Plan (ASSMP) be prepared prior to excavation works.

Hunter Water (HW) did not object to the development and required a hydraulic design assessment of internal water and sewage services. HW noted a gravity/pump station system is not considered viable for the site and requested the Applicant contact them to discuss the appropriate sewer connection requirements.

Hunter New England Local Health District (HNELHD) did not object to the development and requested the Applicant undertake measures to minimise impacts on human health from exposure from particulate matter (PM) and noise.

Sydney Trains did not object to the development and recommended conditions of consent on construction and operational activities.

The **Rural Fire Service** (RFS) did not object to the development and requested compliance with the Bushfire Threat Assessment (BTA) and recommendations outlined in the EIS.

Transport for NSW (TfNSW) did not object to the development and had no comments.

Roads and Maritime Services (RMS) did not object to the development and had no comments.

Ausgrid did not object to the development and had no comments.

5.3.2 Key Issues – Community Issues

A total of 19 submissions were received from the public, of which 14 objected to the development. Key issues raised in the public submissions included:

- air quality and dust, including dust deposition and human health impacts
- traffic impacts, including congestion on the surrounding road network and safety concerns regarding movement of trucks on Racecourse Road
- noise impacts
- fire impacts.

Consideration of the key issues raised in submissions received from the public is provided in **Appendix B**.

5.4 Response to Submissions

To address the issues raised in the submissions, the Applicant provided additional information. There were delays during the assessment of the development application because of serval unresolved issues which were not adequately addressed in the EIS. A summary of agencies' responses is provided below:

On 18 April 2019, the Applicant provided a RtS on the issues raised during the exhibition of the EIS (see **Appendix A**). The RtS provided responses to agency requests for further information. The agencies provided further response to the RtS as discussed below:

- the **EPA** required additional information in relation to stormwater management, including the treatment of wastewater, sediment basin sizing, wastewater storage dam lining, wastewater quality and discharge, and leachate management for garden and wood waste
- **Council** provided further comment in relation to landscaping and traffic and recommended conditions of consent
- **OEH** was satisfied the likelihood of the development harming Aboriginal objects was low and an exemption from preparing an ACHAR was granted
- **Hunter Water** stated it had no further comments on the development and reiterated that should a connection to water and sewer be required, an application under section 49 of the *Hunter Water Act 1991* would be required
- **DOI** stated it had no further comments on the development.

The Department also raised a number of concerns regarding the originally-proposed night operations, the material to be used to construct the noise wall, the AQIA, wastewater quality and discharge, site access and safety and the quality of the site plans.

A revised RtS was submitted on 6 May 2019. Based on the agency and Council concerns, the Applicant noted it would no longer propose to operate at night and instead operate between 7 am and 10 pm (Monday to Friday) and 8 am to 6 pm (Sundays and Public Holidays). The agencies reviewed the updated information and amendments to the development supplied with the revised RtS. The following issues remained:

- the **EPA** was satisfied air quality, noise and contamination was addressed by the Applicant in the RtS reports, however, noted concerns relating to wastewater management and discharge quality had not been adequately addressed. The EPA noted these issues were not resolved in the two RtS reports, however they could be completed and implemented as a post approval matter prior to increasing the waste intake at the site
- **Council** was satisfied with the revised RtS and provided no further comments in relation to the development.

The Applicant disputed the EPA's recommended conditions of consent requiring:

- the proposed noise barriers on the southern and eastern perimeter of the site be constructed prior to the construction phase
- the preparation of a Discharge Impact Assessment Report (DIAR) prior to the commencement of operations
- the restriction of the use of garden and wood waste leachate outside of the leachate barrier system until it can be demonstrated that the potential water pollution risks will be appropriately managed.

On 19 August 2019, the EPA advised its requirements would remain firm and would not be varied.

On 2 October 2019 and 20 November 2019, additional information was also submitted to the Department in response to some residual questions regarding operations, site plans as well as a few other minor details. The final information was provided on 29 November 2019.

6. Assessment

The Department has considered all information submitted by the Applicant and stakeholder submissions in its assessment of the development. The Department considers the key assessment issues are:

- stormwater and leachate management
- traffic and access
- air quality

6.1 Stormwater and Leachate Management

The expansion of the RRF has the potential to impact surface water if contaminated stormwater and leachate is not managed by an adequate surface water system. The EIS included a Soil and Water Impact Assessment (SWIA) prepared by Umwelt Australia Pty Limited to assess the potential stormwater impacts of the development.

Background

The RRF currently operates on an unsealed surface that was filled using C&D waste. Rainfall that is not absorbed into the ground or waste stockpiles, generally flows diffusely offsite from the north west of the site or to a central drainage pit, both of which drain to Cockle Creek. Water for waste processing and dust suppression is sourced from captured stormwater that is stored in five 10,000 Litre (L) above-ground tanks located around the site or via water tankers that collect water from the Hunter Water Corporation (HWC) reticulated potable supply.

The SWIA noted the existing surface water had elevated pH levels (pH 9.72), nutrients and total suspended solids (TSS) due to the large volumes of concrete being recycled at the RRF and the existing garden and wood waste storage and processing area. These levels exceed the criteria set under Managing Urban Stormwater Harvesting and Reuse (Department of Environment and Conservation, 2006) and the pH criteria for public health risk management (6.5-8.5) for a controlled public access industrial site.

Surface Water Management System

In line with current practices, the development's surface water management strategy is to retain surface water runoff from the operational areas of the site for onsite reuse in waste processing and dust suppression (see **Figure 6**). The development would:

- capture surface water from catchment areas A and B in two newly constructed sediment dam 1 at the north west and sediment dam 2 at the south west corners of the site respectively. Once the sediment laden water has settled, the water would be pumped to one of eleven 10,000 L storage tanks (up to 110,000 L maximum capacity) for reuse in waste processing and onsite dust suppression
- discharge excess surface water from the sediment dams during storm events to an offsite vegetated drainage swale to the west of the site and then into Cockle Creek
- capture leachate from the bunded and lined garden and wood stockpile storage and processing pad (catchment area C) in a leachate dam which has a design capacity for a 1 in 10-year, 24-hour storm event. The leachate would be transferred to a constructed wetland for nutrient and sediment removal and then pumped to the storage tanks.

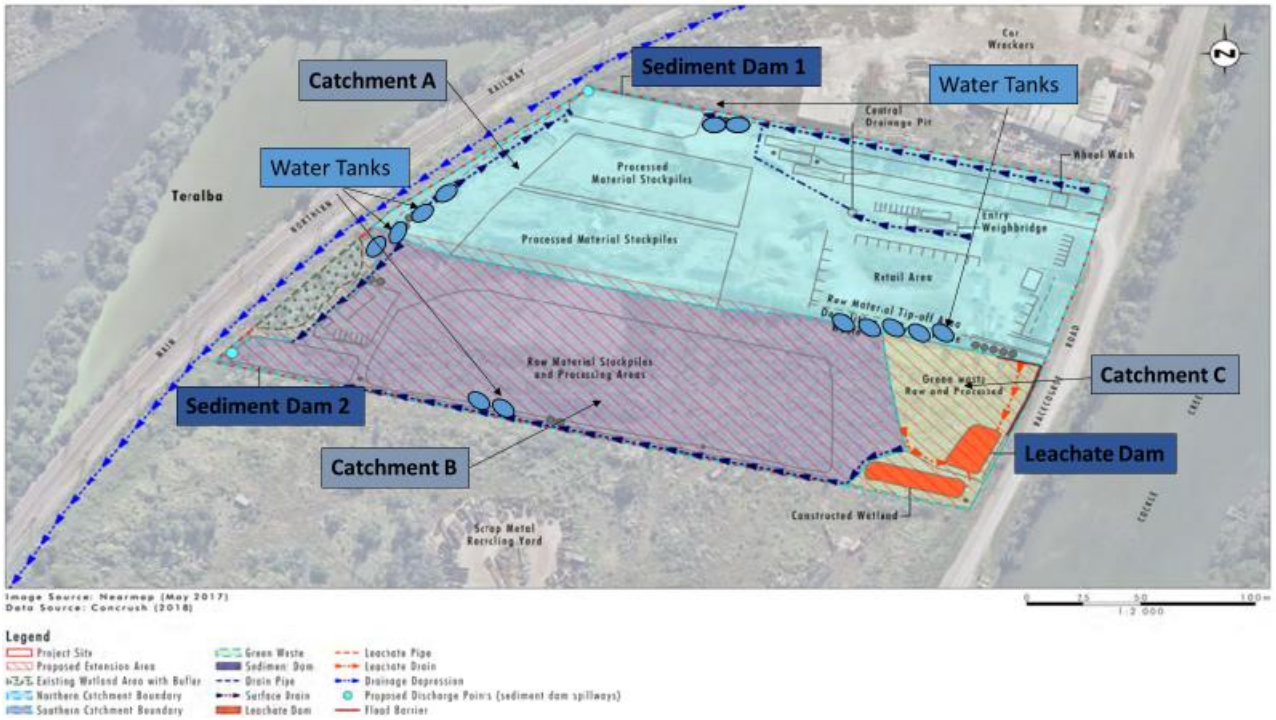

Figure 6 | Conceptual Surface Water Management System

The EPA raised concerns that potentially contaminated surface water could be discharged from the sedimentation dams into Cockle Creek and requested additional information on the treatment performance of the proposed sedimentation basins, constructed wetland and a more detailed water balance model. The EPA noted surface water runoff from waste storage and processing areas could potentially contain a range of contaminants including sulphides, heavy metals, polycyclic aromatic hydrocarbons (PAHs) and surfactants, which have been known to occur at other similar facilities.

The Applicant provided additional information in its RtS, including water quality data taken from surface water monitoring locations around the boundary of the site. The water quality data identified surface water currently contains elevated levels of TSS, Biological Oxygen Demand (BOD), nutrients, aluminium, chromium VI, copper and zinc with traces of total recoverable hydrocarbons (TRH).

The EPA was not satisfied with the Applicant's RtS as the information provided did not adequately characterise the potential impacts of the proposed discharges or identify measures to minimise water pollution. The EPA also noted the sediment dams, which are generally designed to capture and treat surface water containing 'uncontaminated' sediment, could actually capture and discharge contaminated surface water to Cockle Creek during storm events. However, the EPA considered its concerns could be addressed through a suite of comprehensive conditions to allow additional discharge characterisation, including pollutant loads and discharge concentrations and identify appropriate management measures to mitigate contaminated surface water being discharged to Cockle Creek prior to the commencement of Stage 1 operations. At this time, it would also be appropriate to identify and implement suitable management and mitigations measures to prevent water pollution.

In addition, the EPA required the sediment dams be lined in accordance with the design specifications for leachate dams under the EPA's Environmental Guidelines: Solid Waste Landfills, 2016, and the leachate dam and garden and wood waste stockpile pad be lined in accordance with the EPA's Environmental Guidelines: Composting and related organics processing facilities, 2003 (Compositing Guidelines). This would ensure any source of water contaminants from these areas are suitably controlled.

Department's Consideration

The Department has reviewed the information submitted by the Applicant and the advice provided by the EPA. While it is acknowledged the proposed stormwater management system would be an improvement on the existing performance, the Department considers the Applicant has not sufficiently demonstrated the proposed stormwater management system would effectively manage and treat contaminated stormwater prior to discharge to Cockle Creek. The Department considers the stormwater management system has not been adequately designed to separate clean and dirty water from the waste operational areas and as a result, the sedimentation dams are likely to discharge contaminated water during storm events.

To ensure design of an appropriate surface water management system is achieved, the Department has recommended a rigorous and robust set of conditions to enable any design aspects of the surface water management system to be resolved prior to the commencement of Stage 1 operations. This framework would be consistent with the approach taken successfully at other outdoor RRFs assessed by the Department (Kooragang Island RRF, Mayfield West RRF and Widemere RRF). This approach has also been agreed to by the EPA. The Department therefore recommends requiring the Applicant to:

- prepare a Water Discharge Management Plan (WDMP) prior to Stage 1 construction to characterise the quality of potential future discharges - detailing any potential impact of those discharges and identifying appropriate control measures and changes to the surface water management system
- based on the outcomes of the WDMP, design an appropriate stormwater management system in consultation with the EPA – this system to be installed prior to commencement of Stage 1 operations
- prepare a Discharge Verification and Mitigation Plan (DVMP) prior to Stage 1 operations - detailing management triggers to be applied and the mitigation measures in response to those triggers
- prepare a Discharge Verification and Mitigation Report (DVMR) within 12 months of commencement of Stage 1 operations - verifying the surface water management system are adequate

The Department's assessment concludes that with these conditions in place, surface water impacts of the development would be adequately managed ensuring discharges from the site would not impact Cockle Creek.

6.2 Traffic and Site Access Impacts

The development would generate additional heavy vehicle movements which have the potential to impact the safety, capacity and efficiency of the surrounding road network.

The EIS included a Traffic Impact Assessment (TIA) prepared by Mark Waugh Pty Ltd in accordance with the RMS Guide to Traffic Generating Developments (RTA, 2002). The proposed heavy vehicle transport route is via Racecourse Road to the south of the site, which connects with the regional road network. Access to the north is only for vehicles less than 19 m long, using The Weir Road which connects to local road network and the Pacific Motorway. The intersections that would be most heavily impacted by the development are:

- Racecourse Road and The Weir Road
- Racecourse Road and York Street (see **Figure 7**)

Construction Traffic

The Applicant proposes to continue operating the RRF while Stage 1 construction activities occur. Construction traffic would generate an additional eight heavy vehicle trips (a trip is two separate movements) per day and an additional 10 light vehicle trips per day over a 12-week period. As the combined traffic numbers for the existing RRF (see **Table 5**) and construction traffic are lower than the predicted operational traffic volumes, the Applicant did not undertake a detailed assessment of construction traffic.

RMS and Council did not raise any concerns regarding potential construction traffic impacts. The Department considers that construction traffic impacts would be low and have minimal impact on the surrounding road network. However, as construction will occur simultaneously with the existing operations, the Department has

recommended requiring the Applicant to prepare a Traffic Management Plan (TMP) in consultation with Council and to the satisfaction of the Planning Secretary prior to the commencement of construction. The TMP would require the Applicant detail the measures that would be implemented to ensure the safety of road users during construction and manage the safety of construction workers, members of the public and staff during construction.

Figure 7 | Key Transport Routes to and from the Site

Operational Traffic

The expanded operations at 250,000 tpa are predicted to generate a total of 480 vehicle movements (two-way) per day (predicted operational peak), an overall increase of 349 movements per day (above the November 2017 traffic volumes), comprising an additional 276 heavy vehicle movements per day as shown in **Table 5** below.

Table 5| Predicted Vehicle Trips

	Existing as at November 2017 (110,000 tpa of waste)	Predicted Operational Peak (at 250,000 tpa of waste)
Daily peak forecast flows (movements per day)	92 (heavy vehicles) 39 (light vehicles)	368 (heavy vehicles) 112 (light vehicles)
Total	**131**	**480**
Operational peak (movements per hour)	Not provided	36 (heavy vehicles) 12 (light vehicles)
Total	**Not provided**	**48**

At peak operations, the traffic count would contribute to a:

- 19.5 % increase in heavy vehicles during the AM and PM peak period at York Street (just north of Short Street and approximately 2 km south of the site)
- 19.5 % increase in the AM and PM peak period at Racecourse Road (immediately south of the site)

- 26 % increase in the AM and PM peak period at The Weir Road (south of Northville Drive), approximately 3.5 km north west of the site.

Traffic modelling compared the performance of Racecourse Road, York Street and The Weir Road during the existing and projected traffic conditions. The traffic modelling indicated the roads surrounding the site would continue to operate well within their capacity levels, with only some minor changes in forecast traffic flows. On Racecourse Road during the PM peak, the Level of Service (LoS) would change from the existing LoS 'A' to a LoS 'B' for both north bound and south bound lanes as a result of the development. The only other change to traffic volume LoS is for York Street (north of Short Street) for the south bound lane during the PM peak which would change from LoS 'A' to LoS 'B'. In accordance with the RMS Guide to Traffic Generating Developments, 2002, the Applicant concluded that a LoS 'B' is acceptable and would not compromise the safety and efficiency of the surrounding road network.

RMS provided no comments on traffic. Council provided no comment on the proposed increase in traffic volumes, however noted it intended to implement a five tonne load limit on The Weir Road north of the site due to concerns over the structural integrity of the Barnsley Weir. Therefore, Council recommended a condition of consent requiring heavy vehicles travelling to and from the site do so only from the south via York Street and Toronto Road.

In its RtS, the Applicant objected to the proposed restriction on use of the Weir Road, stating this would be difficult to enforce. Based on the Applicant's concerns, Council accepted heavy vehicles could travel north via The Weir Road and withdrew its recommended condition restricting its use. Council instead recommended a condition requiring an annual haulage contribution under its section 7.11 development contributions plan of:

- $6,045.45 when access along The Weir Road is not available (due to flooding or road closure); or
- $24,050 when access along The Weir Road is available at all times.

The annual haulage contributions are required for road maintenance and repairs of The Weir Road. The Applicant has agreed to this requirement and will pay the contribution.

Department's Consideration

The Department sought clarification from Council regarding the development contribution and the timing of the proposed five tonne restriction on The Weir Road. In December 2019, Council advised it had instead approved a vehicle length restriction on the crossing of the Barnsley Weir which restricts access to rigid trucks greater than 15 m length and articulated trucks where a trailer total length is no greater than 19 m (with the truck length of no greater than 12.5 m). The annual development contribution requirements for road maintenance would remain. Council noted relevant signage will be placed in late February on The Weir Road with the vehicle length restrictions 2020. The Applicant advised the majority of articulated vehicles accessing the site would be no greater than 19 m and rigid trucks would be no greater than 15 m. The Department notes the swept path analysis (SWA) provided in the TIA was modelled using truck and dogs (reticulated vehicles) of no greater than 19 m.

The Department recognises the development would increase the demand on local road infrastructure, particularly heavy vehicles accessing The Weir Road. The Department notes Council was initially concerned about the safety and structural integrity of the Barnsley Weir and considered a five tonne restriction on vehicles accessing The Weir Road. However, Council instead placed a 19 m vehicle length restriction on the crossing of the Barnsley Weir. The Department notes this restriction is unlikely to impact the movement of vehicles accessing the site as the majority of vehicles would be less than the restricted length. The Department has recommended a condition requiring the Applicant pay the applicable development contribution to Council for road maintenance and repairs of The Weir Road. The Department has also recommended the Applicant prepare a Traffic Management Plan (TMP) for both construction and operation in consultation with Council that would detail heavy vehicle traffic routes and a Code of Conduct (CoC) for drivers.

The Department's notes the potential traffic impacts associated with the construction and operation of the development represent an acceptable change in the road conditions and LoS at key intersections which would not compromise the safety and efficiency of the surrounding road network. The Department's assessment concludes these impacts can be adequately managed by the Applicant with the preparation of a TMP (for both construction and operation traffic) and payment of development contributions to Council.

Site Access Arrangements

The Applicant proposes to widen the existing driveway and construct a turning treatment for vehicles entering the site and a new exit only driveway from the retail area to be used by light vehicles. This would assist with the separation of light and heavy vehicles while onsite.

Council and public submissions raised concerns about road safety due to slower heavy vehicles entering the site from Racecourse Road, where the speed limit is 80 km per hour. Council supported the Applicant's proposal to construct a turning treatment (an auxiliary left turn (AUL) treatment) for northbound vehicles turning left into the site and a right turn treatment (a basic right turn (BAR) treatment for southbound vehicles). The turning treatments are required to facilitate the safe arrival of heavy vehicles by allowing approaching vehicles to slow down before turning onto the site. Council required the construction of the turning treatments prior to the commencement of Stage 1 operations. Additionally, Council also recommended a condition requiring a cycle lane provision (northbound) and a shoulder provision southbound. Council supported the Applicant's proposal to widen the existing driveway.

The Department agrees the turning treatments for vehicles accessing the site would facilitate the safe arrival of heavy vehicles and has recommended conditions requiring approval from Council for site access improvements under section 138 of the *Roads Act 1993* prior to Stage 1 operations. The Applicant sought to widen the existing driveway prior to Stage 2 operations, however the Department has recommended this occur prior to Stage 1 operations due to the increased number of heavy vehicles entering and exiting the site during Stage 1 operations. The Department has additionally recommended a condition requiring the preparation of a TMP for both construction and operation in consultation with Council which would detail measures to be implemented to ensure road safety and network efficiency during construction and operations.

The Department's assessment concludes that, subject to the to the recommended conditions, the development would not compromise the safety and efficiency of the surrounding road network.

6.3 Air Quality and Odour

The development has the potential to generate air quality impacts during construction and operational phases due to on site vehicle movements and the processing of C&D waste and garden and wood waste.

The EIS included an AQIA prepared by RCA Australia in accordance with the 'Approved Methods and for the Modelling and Assessment of Air Pollutants in NSW' (Approved Methods). The AQIA included dispersion modelling using the Ausplume Dispersion Model and was undertaken to predict the potential impacts of the development on residential receivers from odour emissions, total suspended particulates (TSP), dust deposition and particulate matter ($PM_{2.5}$ and PM_{10}).

The AQIA identified the main particulate emission sources as dust from vehicle movements within the site, wind generated dust from waste stockpiles and machinery generated dust from processing operations. The main odour emission sources were identified as the leachate dam, garden and wood waste stockpiling, processing of garden and wood waste and pasteurisation (a form of composting that reduces plant pathogens in the compost) activities.

The AQIA modelled the potential air quality impacts of the development at a number of existing residential receivers, including receivers located 350 m to south east of the Site (A, B, C), 400 m to the north of the site (G and H) and future residential locations 200 m to the east of the site (D, E, F) as shown in **Figure 8**.

Figure 8 | Modelled Sensitive Receiver Locations

The AQIA included a Level 2 impact assessment with dispersion modelling using site-specific input data. The AQIA used ambient background air quality monitoring data from the OEH meteorological monitoring dataset located in Wallsend (located approximately 7 km north east of the site) and the Bureau of Meteorology (BOM) Newcastle Nobby (located approximately 17 km north east of the site). The AQIA noted the Wallsend weather station was likely influenced by the terrain immediately surrounding the weather station.

The Department and the EPA required additional information after their initial review of the AQIA and was provided with in the RtS.

Construction Air Quality

The AQIA modelled dust emissions during the construction stage and identified the potential dust generating activities as on site heavy vehicles and machinery moving along the access road and the use of a front-end loader maintaining stockpiles and excavating the site. The results of the modelling for PM_{10} 24 hour are predicted to be well below the EPA criteria of 50 µg/m^3, both incrementally (due to the project) and cumulatively (including background level) at all residential receivers. The AQIA proposed mitigation and management including water sprays on all stockpiled waste and water carts on all access roads.

The EPA and Council did not raise any concerns regarding construction air quality impacts. The Department is satisfied based on the modelling construction activities would not have an unacceptable impact on residential receivers. The Department has recommended conditions requiring the Applicant to implement dust minimisation measures including limiting exposed surfaces, regular watering, including the use of water sprays on all stockpiled waste and water carts on all access roads to ensure dust is minimised.

Operational Air Quality

Particulates

The AQIA modelled both the incremental and cumulative emission concentrations for TSP, dust deposition, PM_{10} and $PM_{2.5}$ during operations and evaluated a worst-case scenario to predict the potential impacts. The modelling assumed machinery would be operating continually, stockpiles would be located on the eastern boundary (closest to residential receivers) and the maximum area within the site was used for stockpiling to reflect a worst-case outcome for dust emissions.

TSP, particulate matter less than 10 and 2.5 microns (PM_{10}) and ($PM_{2.5}$) and deposited dust were predicted to comply with the EPA criteria, both incrementally and cumulatively (at all residential receivers with the implementation of the following mitigation measures:

- use of automated water sprays on conveyor units, screens and crushing units (existing and new)
- use of water spays within the pug mill
- use of the water carts for access roads and other open areas
- use of automated water sprays on all stockpiles
- all haul roads are sealed for both Stage 1 and Stage 2 operations
- operations to cease during adverse weather conditions (average wind speed greater than 36km/h is recorded continuously over a 15 minute period from a north or north westerly direction) or dust generating activities to cease if dust suppression equipment fails.

The Department and EPA initially raised concerns that modelling showed compliance with the EPA impact criteria only when all mitigation measures were implemented. In response to these concerns, the EPA requested the Applicant to justify why the development should not be enclosed. The Applicant argued it was not cost effective to move outdoor operations within an enclosure. They highlighted that vehicle movements on unsealed haul roads was the main contributor of dust. To mitigate these impacts the Applicant proposed to seal all haul roads prior to Stage 1 and Stage 2 operations and maintain waste stockpile heights of no greater than 10 m. The EPA provided no additional comments in relation to particulates from dust but has recommended that the Applicant prepare an Air Quality Management Plan (AQMP) to manage and mitigate particulate emissions prior to the commencement of Stage 1 operations.

Odour Emissions

In accordance with the Approved Methods, an odour impact criterion of 2 odour units (OU) at residential receivers was adopted for the odour assessment. To calculate an estimate of odour emissions from garden and wood waste processing, the Applicant developed an odour emissions model. The specific odour emission rates for the development were based on data from existing composting facilities and adjusted for the maximum quantity of garden and wood waste that could be processed (i.e. 250,000 tpa), the total hours garden and wood waste would be worked, the leachate dam being at full capacity and pasteurisation turning activities on a cycle of four times every year.

The Applicant noted the pasteurisation system at Stage 2 is likely to reduce odour emissions as the aeration system would incorporate mechanical fans and distribute odours more evenly across the garden and wood waste piles. Additionally, the modelling assumed the leachate dam would be at capacity, which is unlikely, and therefore the modelling reflects a worst-case outcome for odour emissions.

The results of the modelling demonstrated that odour concentrations at all of the nearest residential receivers are predicted to be below the criterion of 2 OU. The closest residential receiver (E), had a predicted odour concentration of 1.9 OU. The Applicant has proposed to minimise off-site odour impacts through monitoring of weather conditions to avoid conducting potential odour generating activities when the wind direction is blowing towards residential receivers (winds coming from the south west or west) and to avoid conducting potential odour generating activities during early morning periods under low wind speed conditions.

The EPA did not provide any comments on the revised odour modelling and recommended limits for garden and wood waste storage of no more than 200 t of garden and wood waste to be stored at the site at any given time and required that no more than 5,000 t of garden and wood waste be processed per year.

Department's Consideration

The Department acknowledges that submissions were received concerning air quality particularly dust deposition, increased health risks due to poor air quality and amenity issues. The Department also notes Council and the

HNELHD also raised concerns regarding the cumulative impacts of dust. The Department has carefully reviewed the AQIA in close consultation with the EPA and, while the AQIA has determined odour and dust deposition are predicted to comply with the EPA criteria at all residential receivers, the Department considers specific conditions are required to minimise air quality and odour impacts on residential receivers and to ensure operational practices would reduce dust and odour emissions. The Department recommends operational conditions requiring the Applicant to restrict the garden and wood waste storage and processing limit to minimise any potential odour emissions, the height of waste stockpiles to no greater than 10 m, seal roads and ensure roads are swept and watered regularly and to cease operations during adverse weather conditions. Additionally, the Department has also recommended the Applicant prepare a AQMP to be prepared by a suitably qualified and experienced person (s) prior to Stage 1 operations which details and ranks all emissions sources from all sources of the development and evaluates the performance of air quality management controls.

The Department concludes with the implementation of the recommended conditions and Applicant's proposed mitigation measures, any air quality impacts from the RRF would be adequately managed to minimise air quality impacts on residential receivers.

6.4 Other Issues

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

Table 6| Assessment of Other Impacts

Issue	Recommended Condition
Noise	
• The EIS included a Noise Impact Assessment (NIA) prepared by RCA Australia. The NIA was prepared in accordance with relevant noise policies and guidelines. • The NIA predicted an exceedance of the operational daytime noise criteria of up to 4dB(A) (marginal exceedance) at NCA 1 (residential receiver) and 1dB(A) (negligible exceedance) at NCA 2 (residential receiver). In accordance with the EPA's Noise Policy for Industry, 2017 the Applicant identified noise mitigation measures to reduce off-site noise impacts. This includes the construction of a concrete noise barrier on the eastern and southern boundary of the raw waste and stockpile processing area prior to stage 1 operations and ensure only quieter activities such as screening and stockpiling of waste or the dispatch of truck would occur in the evening. • Construction noise levels were found to satisfy the EPA's Interim Construction Noise Guidelines 2009 at all residential receiver locations. • Road traffic noise from the development was also found to comply with the Road Noise Policy 2011. • The EPA provided no further comment and recommended conditions requiring the Applicant install block noise wall barrier on the eastern and southern boundary of the raw waste and stockpile processing area and apply all feasible and reasonable noise mitigation measures to manage construction and operational noise impacts at the site. • The Department considers the management measures proposed by the Applicant to minimise the off-site noise impacts are appropriate and has	Require the Applicant to: • prepare an ONMP • construct and install concrete block noise barriers • limit operating hours to 7 am to 10 pm (Mondays to Saturdays) and 8 am to 6 pm (Sundays and Public Holidays) • ensure only the screening and stockpiling of waste or loading and dispatch of trucks occurs in the evening period • ensure no crushers are used in the evening.

Issue	Recommended Condition
incorporated these into recommended conditions of consent. This includes the construction of a concrete block noise barrier on the eastern and southern boundary of the raw waste and stockpile processing area. • Additionally, the Department has recommended the noise generated by the development must not exceed the noise limits specified in the existing EPL for the RRF and recommended an Operational Noise Management Plan (ONMP) be prepared prior to Stage 1 operations to describe the measures to be implemented to manage noise generating activities during operations. • The Department's assessment concludes the noise impacts can be managed at the site subject to the recommended conditions.	
Site Contamination and Acid Sulfate Soils	
• The development has the potential to disturb soils which may be contaminated by past industrial uses. • Lot 2 DP 220347 is listed on the EPA register of sites declared as significantly contaminated under the CLM Act. The notified area is located in the southern portion of Lot 2 DP 220347, outside the site boundary (see **Figure 2**). • A contamination assessment report prepared by RCA Australia assessed the baseline contamination of soils and groundwater at the expanded section of the site and found zinc and benzo (a) pyrene exceeded the ecological criteria as set out in the National Environment Protection (Assessment of Site Contamination) Measure. Bonded asbestos fragments and potential acid sulphate soils (PASS) were identified within the site. • The Applicant noted acid sulfate soils (ASS) risk mapping identified the site has a high probability of ASS materials. • The excavation for the sedimentation and leachate dam would require the excavation of potentially contaminated fill • The EPA noted and confirmed soil and groundwater contamination is present at the site which will require further assessment and remediation. The EPA recommended conditions to engage a suitably qualified consultant to prepare a RAP to manage contamination during the construction stage and to engage a certified consultant to prepare a Section A Site Audit Statement (SAS) following remediation works to ensure the suitability of the land for its proposed used. • The DOI recommended the preparation of an ASS Management Plan (ASSMP) prior to any excavation works within 0.5m of the measured groundwater table. • The Department has recommended if asbestos is encountered during remediation or construction it is monitored and managed in accordance with the requirements of SafeWork NSW. • The Department has considered the information provided by the Applicant and the advice provided by the EPA. The Department has	Require the Applicant to: • prepare a RAP and ASSMP prior to Stage 1 construction • undertake remedial works prior to stage 1 operations • provide a SAS reviewed and approved by a certified consultant.

Issue	Recommended Condition
recommended a RAP be prepared by a qualified consultant in consultation with the EPA and approved by the Planning Secretary prior to commencement of Stage 1 construction. Remediation works prior to the commencement of Stage 1 operations are to be undertaken in accordance with the RAP. Additionally, the Department has recommended a SAS be prepared by a certified consultant within one month of the completion of the remediation works confirming the site is remediated in accordance with the RAP and will meet the objectives to remove the risk of harm to human health and the environment. With these conditions in place, the Department concludes the site can be made suitable for the proposed development.	
Groundwater	
• Groundwater data was collected from two groundwater monitoring bores installed at the expanded RRF area as part of a baseline contamination assessment prepared by RCA Australia. • The groundwater data identified low levels of total recoverable hydrocarbons, benzene, toluene, ethylbenzene and xylene, polycyclic aromatic hydrocarbons, phenols and heavy metals. Arsenic exceeded the ecological criterion within the Australian and New Zealand Environment and Conservation Council Water Quality Guidelines, 2000. The Applicant attributed the contamination in groundwater to the contaminated fill and the site's industrial past. • The EPA requested additional data on groundwater which the Applicant provided in its RtS. The EPA recommended a condition requiring additional groundwater data be attained through the preparation of a Groundwater Management Plan (GMP) by a qualified consultant. This is additional to the conditions above requiring the Applicant to prepare a RAP to manage contamination which would also take into consideration groundwater contamination and to engage a certified consultant to prepare a SAS following remediation works to ensure the suitability of the land for its proposed used. • DoI requested a test pit be constructed at both the leachate pond and artificial wetland to determine water table depth against the intended excavation depths of the leachate dam and artificial wetland. • The Department has recommended a condition requiring the Applicant prepare a GMP prior to Stage 1 construction which includes the installation of a groundwater monitoring well to obtain additional groundwater data and to establish protocol to investigate and mitigate exceedances of the groundwater impact assessment criteria and detail the water table depth compared to the excavation depths of the proposed leachate dam and artificial wetland. • The Department considers the proposed measures to address the contaminated fill and soils on site will assist in addressing groundwater contamination issues.	Require the Applicant to: • prepare a GMP

Issue	Recommended Condition
• The Department concludes that with these conditions in place groundwater contamination will be adequately managed.	
Flood Management	
• The site is located in the Cockle Creek Estuary catchment that forms part of the broader Lake Macquarie catchment and is classified as having a high flood risk based on Council's flood risk mapping. • The lower portion of the site is located within the 1 % AEP flood extent as determined by the Council's Winding Creek and Lower Cockle Creek Floodplain Risk Management Study and Plan 2017. • To meet Council's 1% AEP flood standard, the Applicant proposes to fill the lower portion of the site above the RL 2.35 m AHD to prevent flood waters entering the garden and wood waste processing pad. • The Applicant noted the hydraulic effects of any filling are not significant and are unlikely to create a change in flood levels on other properties. • Council did not provide comment in relation to flooding and OEH recommended the Applicant review its emergency management procedures to ensure any increased flood risk can be managed appropriately. • The Department has recommended a condition requiring a Flood Emergency Response Plan (FERP) to be prepared to address the provisions of the OEH's Floodplain Risk Management Guidelines 2007 and ensure the safety of staff during flooding. • The Department concludes flood risks would be appropriately managed.	Require the Applicant to: • to prepare a FERP
Visual and Landscaping	
• The Applicant has proposed a landscaped 2 m high earth bund along the eastern boundary (southern half) of the Site to complement the existing landscaped earth bund present along the northern half of the eastern boundary. • Council did not agree with the Applicant's intention and recommended conditions requiring the development reflect the ecological context and values of the Cockle Creek. The Applicant proposed additional landscape plantings to be determined during the detailed design phase which would likely include tree plantings adjacent to the wetland area in the south western portion of the site. Council provided no additional comments. • The Department considers the visual impact of the development to be minimal due to the site's industrial context and the Applicant's proposed mitigation measures including the planting of landscaping plants adjacent to the wetland. The Department has recommended conditions requiring the Applicant to prepare and implement a landscape management plan (LMP) to the satisfaction of Council and maintain landscaping and vegetation for the life of the development.	Require the Applicant to: • to prepare and implement a LMP to the satisfaction of Council • maintain landscaping and vegetation on site for the life of the development.

Issue	Recommended Condition
Fire Safety	

• The site is not identified as bush fire prone land in the Council's Bushfire Prone Land mapping system. Land to the west and southwest of the site is mapped as bushfire buffer land.
• The Applicant has considered the RFS's Planning for Bush Fire Protection, 2016 and proposed to implement a number of fire safety measures including the installation of:
  o FRNSW compatible fittings on the water storage tanks near the garden and wood waste area
  o fire extinguishers on all machinery
  o water tanks near the garden and wood waste stockpile pad in accordance with FRNSW's Fire Safety Guideline - Fire Safety in Waste Facilities 2019
• FRNSW raised no objection to the development and recommended conditions requiring the Applicant to prepare an Emergency Management Plan (EMP) and implement the proposed fire safety measures.
• The RFS raised no objection to the development subject to compliance with the bushfire threat assessment and proposed mitigation and management measures proposed in the EIS.
• The Department considers the Applicant has addressed FRNSW and RFS requirements adequately and has recommended conditions to reduce and manage fire risks.
	Require the Applicant to:
	• prepare an Emergency Management Plan with consideration of FRNSW Guidelines
	• install FRNSW compatible fittings on the water storage tanks near the garden and wood waste area
	• install fire extinguishers on all machinery.

Parking and Site Maneuverability	
<u>Parking</u> • The RRF has 11 parking spaces and currently employs seven staff. • The Applicant proposes to provide nine additional car parking spaces and increase up to 20 car parking spaces prior to Stage 2 operations. • The Applicant proposes to employ an additional two full-time staff and five temporary construction jobs. • Council did not provide any comments or any recommended conditions in relation to parking. • The Department considers there is an adequate provision of parking for both construction and operations and has recommended a condition requiring 20 car parking spaces, ensuring parking is designed in accordance with AS 2890. <u>Maneuverability</u> • The TIA included a swept path analysis (SWA) prepared by McLaren Traffic Engineering for light and heavy vehicles entering, exiting and maneuvering within the site. • The SWA demonstrated all vehicle movements including truck and dogs of up to 19 m can maneuver in a forward direction in, out and within the site during Stage 1 and Stage 2 operations.	Require the Applicant to: • provide 20 car spaces • ensure parking is designed to AS 2890 • ensure vehicles no larger than 19 m access the site • ensure no queuing on Racecourse Road.

Issue	Recommended Condition
• The Department is satisfied that vehicles would be able to adequately maneuver safety on-site and onto the site as there is adequate space within the development and at the site entrance. To ensure the efficiency and safety of road users, the Department has recommended conditions which limit the size of vehicles permitted to access the site to 19 m and requiring vehicles to enter and exit the site in a forward direction. <u>Queuing</u> • The Department notes the Applicant did not assess queuing times or provide information on the site's capacity to 'stack' vehicles during peak periods. • The Applicant identified up to 13 heavy vehicles are expected during the busiest hour of operations. • The Department notes the driveway (site entrance) could accommodate up to three truck and dogs to queue in a line. There is additional space in the site entrance and onsite to accommodate additional vehicles if required. • The Department is satisfied the Applicant is able to manage additional vehicle movements wholly within the site as there is sufficient space for heavy vehicles to queue on-site without causing congestion on Racecourse Road. • To ensure the efficiency and safety of road users, the Department has recommended a condition prohibiting any queueing on Racecourse Road. The Department concludes the development would not compromise on safety and efficiency of Racecourse Road.	
Biodiversity	
• A Biodiversity Development Assessment Report (BDAR) was prepared by Umwelt (Australia) Pty Ltd in accordance with the Biodiversity Assessment Method (BAM) under the *Biodiversity Conservation Act 2016* (BC Act). The BDAR identified the site: o is primarily dominated by exotic vegetation that has invaded previously disturbed areas o has no threatened ecological communities listed under the BC Act or EPBC Act o has a small degraded freshwater wetland located on the western boundary which may provide fauna habitat. • The BDAR concluded the development would not result in any substantial indirect impacts on the biodiversity values of surrounding lands, and that no flora or fauna species or habitats require offsetting. • OEH was satisfied with the BDAR and provided no further comments in relation to the development. • The Department considers that no conditions of consent relating to biodiversity are necessary.	• No conditions required.

7. Evaluation

The Department has reviewed the EIS, RtS and supplementary information provided by the Applicant and has taken into consideration advice from the government agencies, including Council. All environmental issues associated with the development have been thoroughly addressed, and all relevant matters under Section 4.15 of the EP&A Act, the objects of the EP&A Act and the principles of ecologically sustainable development have been considered. The development would focus on the conversion of waste into reusable products through resource recovery and would assist in diverting C&D waste and garden and wood waste from landfill.

The key issues associated with the development relate to stormwater and leachate management, air quality, odour and traffic impacts. The Department notes there are a number of legacy issues from past industrial practices that have occurred on the site including past water management practices that have not effectively managed surface water discharge impacts. The Department considers there is an opportunity to address these legacy issues and ensure an improved water management regime is established to improve water quality controls. This includes separating clean and dirty water and ensuring suitable treatment prior to discharge, in accordance with current contemporary practices. Further, the recommended conditions will ensure contaminated areas are remediated and the sealing of internal roads will assist with controlling dust. To accommodate traffic movements, site access will also be upgraded to improve the safety and efficiency of the surrounding road network.

Overall, the Department's assessment concluded the development would:

- be capable of receiving and processing up to 250,000 tpa of C&D waste and garden and wood waste, storing up to 150,000 t of waste at any one time
- positively contribute to the State's Waste Avoidance and Resource Recovery Strategy performance for C&D waste
- upgrade and contemporise the environmental controls at the site to reflect current practice for outdoor RRFs
- meet relevant air quality, odour and noise criteria at sensitive receivers
- generate traffic, which could be accommodated on the local and regional road network without any significant impacts on safety, capacity or efficiency
- provide a range of environmental and economic benefits for the region through resource recovery and additional employment.

Nonetheless, the Department has recommended conditions to manage any potential impacts from the development, including:

- development of a Water Discharge Management Plan, Discharge Verification and Mitigation Plan, Discharge Verification and Mitigation Report and a Groundwater Data Gap Investigation to ensure that potential impacts on receiving waters and groundwater are managed
- development of a Traffic Management Plan and Driver Code of Conduct to manage construction and operational traffic impacts
- preparation and implementation of management plans for acid sulphate soils, flood management, noise, and air quality

The Department concludes the impacts of the development are acceptable and can be appropriately managed through implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

8. Recommendation

It is recommended that the Executive Director Regions, Industry and Key Sites, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report;
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant the application;
- **agrees** with the key reasons for approval listed in the notice of decision;
- **grants consent/approval** for the application in respect of SSD 8753, subject to the conditions in the attached development consent (see **Appendix D**); and
- **signs** the attached development consent and recommended conditions of consent.

Prepared by:

Susan Fox
Senior Environmental Assessment Officer
Industry Assessments

Recommended by:

Sheelagh Laguna
Acting Team leader
Industry Assessments

Recommended by:

Chris Ritchie
Director
Industry Assessments

9. Determination

The recommendation is: **Adopted by:**

Anthea Sargeant
Executive Director
Regions, Industry and Key Sites

Appendices

Appendix A – List of Documents

- Concrush Increase to Capacity Project Teralba, NSW Environmental Impact Statement – prepared by Umwelt (Australia) Pty Limited, dated November 2018 and all attachments. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- Concrush Increase to Capacity Project Teralba, NSW Response to Submissions – prepared by Umwelt (Australia) Pty Limited, dated May 2019. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- Concrush Increase to Capacity Project Teralba, NSW Response to Submissions – prepared by Umwelt (Australia) Pty Limited, dated July 2019. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- additional information provided by (Umwelt Australia) Pty Ltd, dated 2 October 2019, 20 November 2019 and 29 November 2019. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- submissions from Lake Macquarie City Council and government agencies. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- submissions from the public. Available on the Department's website at https://www.planningportal.nsw.gov.au/major-projects/project/10491
- relevant planning instruments, policies and guidelines
- relevant requirements of the EP&A Act.

Appendix B – Community Views for Draft Notice of Decision

Table 7| Consideration of Community Views on the Development

Issue	Consideration
Air Quality • localised air quality impacts due to the proposed increase in waste storage and processing • impacts on local amenity and human health • adequate management of dust during adverse weather conditions	Assessment • the Air Quality Impact Assessment demonstrated the air quality impact assessment criteria for residential receivers were met for all emission types. • the Applicant has proposed management measures to mitigate dust impacts from processing activity • the Department's assessment concludes that with appropriate measures in place the development would have minimal air quality impacts on surrounding receivers. Conditions To ensure any potential dust impacts are effectively managed, the Department requires: • waste stockpile height to be limited to no greater than 10 m in height • the preparation of an AQMP to manage emission sources • the implementation of dust management and mitigation measures
Traffic Management • management of heavy vehicles transport route • road deterioration on Racecourse Road • racecourse Road capacity	Assessment • The TIA estimated that the expansion of the RRF would generate an additional 184 heavy vehicle trips per day. • The expanded operations at 250,000 tpa are predicted to generate 480 vehicle movements per day (predicted operational peak), an overall increase of 349 movements per day (above the November 2017 traffic volumes), comprising of an additional 276 heavy vehiclemovements. • The traffic count would in a worst-case scenario, contribute to 19.5 % increase in heavy vehicle trips during the AM and PM peak period at York Street (just north of Short Street and approximately 2 km south of the site), a 19.5 % increase in the AM and PM peak period at Racecourse Road (immediately south of the site) and a 26 % increase in the AM and PM peak period at The Weir Road (south of Northville Drive), 3.5 km north west of the site. • The traffic modelling indicated the roads surrounding the site would continue to operate well within their capacity levels with only some minor changes in forecast traffic flows. • The level of service (LoS) for Racecourse Road during the PM peak would change from the existing LoS 'A' to a LoS 'B' for both north bound and south bound lanes as a result of the development. For York Street (north of Short Street) during the PM peak, the LoS would change from the existing LoS 'A' to a LoS 'B' for both north bound and south bound lanes as a result of the development. Council has required the Applicant to upgrade the access to the site to ensure the safety of road users. • Council recommended a condition requiring an annual haulage contribution condition under Council's section 7.11 development contributions plan of $6,045.45 when access along The Weir Road is not available (due to flooding or road closure) or $24,050 when access along The Weir Road is

Issue	Consideration
	available at all times. The annual haulage contributions would be expended for road maintenance and repairs of The Weir Road. • The Department is satisfied that the traffic generated by the development would have minimal impact on the safety of the surrounding road network. Conditions To ensure traffic impacts are effectively managed, the Department requires: • the preparation of a TMP which also requires a Driver Code of Conduct • no vehicles accessing the site are permitted to queue on Racecourse Road • the Applicant to contribute to Council's section 7.11 development contributions plan and pay an annual haulage levy which would be used towards the repair, maintenance and upgrade of roads used by the development.
Noise • Road traffic noise	Assessment • The road traffic noise assessment in the EIS was undertaken in accordance with the Road Noise Policy (RNP). • The EIS identifies the total traffic noise level along the heavy vehicle route through the suburb of Teralba would be below the relevant RNP criteria of 60 dBA for day time (between the hours of 7 am and 10 pm). • Operating hours have been amended based on community, Council and Government agencies concerns. As a result, no night time activities are proposed at the site. • The Department is satisfied that the noise impacts of the development can be managed to ensure the amenity of the sensitive receivers. Conditions To ensure any potential road noise impacts are effectively managed, the Department requires the Applicant to: • limit operating hours from 7 am to 10 pm (Mondays to Saturdays) and 8 am to 6 pm (Sundays and Public Holidays) • construction of a concrete block noise wall on the southern and eastern perimeter of the raw material stockpiles and processing area for the life of the development • prepare an ONMP • prepare a Driver Code of Conduct to reduce road noise when hauling waste to and from the site.
Fire Management • Fire risk	Assessment • FRNSW had no objection to the development and requested the Applicant prepare an Emergency Management Plan (EMP) with consideration of FRNSW's Fire Safety Guideline-Fire Safety in Waste Facilities and implement the fires safety measures proposed in the EIS. • The RFS advised it had no objections to the development subject to compliance with the bushfire threat assessment and proposed mitigation and management measures proposed in the EIS.

Issue	Consideration
	Conditions To ensure any potential fire risks are effectively managed, the Department requires the Applicant to: • prepare a EMP • implement the installation of FRNSW compatible fittings on the water storage tanks near the garden and wood waste area • manage the pasteurization process within garden and wood waste stockpiles • ensure machinery is available on-site to break up garden and wood waste stockpiles in the event of combustion during pasteurization • continually maintain vegetation across the site to manage fuel loads and prevent the spread of bushfire across the site and the continued provision of fire extinguishers on all machinery.

Appendix C – Statutory Considerations

Section 4.15 of the EP&A Act requires the consent authority, when determining a development application to take into consideration all relevant Environmental Planning Instruments (EPIs).

State Environmental Planning Policy (State and Regional Development) 2011

The SRD SEPP identifies certain classes of development as SSD. Construction and operation of a resource recovery or recycling facility that meets the criteria in Clause 23(3) of Schedule 1 of the SRD SEPP is classified as State significant development. The development satisfies the criteria in Clause 23(3) of Schedule 1 as it involves a resource recovery or recycling facility that handles more than 100,000 tonnes per annum of waste.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

The ISEPP aims to facilitate the effective delivery of infrastructure across the State and lists the type of development defined as Traffic Generating Development.

The development constitutes traffic generating development in accordance with the ISEPP as it involves a waste recycling facility with access to a road. Consequently, it requires referral to RMS for comment and consideration of accessibility and traffic impacts.

The development was referred to RMS for consideration. RMS did not object to the development and it had no comments.

State Environmental Planning Policy 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 outlines the items that a consent authority must consider when assessing whether a development is hazardous or offensive.

The Applicant reviewed the development in accordance with SEPP 33 and advised it would not store dangerous goods above the threshold limits specified in SEPP 33. Therefore, it would not be considered potentially hazardous or offensive development.

State Environmental Planning Policy 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. Lot 2 DP 220347 is listed on the EPA register of sites declared as significantly contaminated under the *Contaminated Land Management Act 1997* (CLM Act). The notified area is located in the southern portion of Lot 2 DP 220347, outside the site boundary

The EIS has identified that soil and groundwater contamination occurs at the site and the source of contamination is as a result of past industrial uses. The Department has recommended further studies into the contamination.

Lake Macquarie Local Environmental Plan (Lake Macquarie LEP)

The Lake Macquarie LEP aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the Lake Macquarie LGA. The Lake Macquarie LEP also aims to conserve and protect natural resources and foster economic, environmental and social well-being.

The development is located on IN1 General Industrial zoned land. The Department has consulted with Lake Macquarie City Council throughout the assessment process and has considered all relevant provisions of the Lake Macquarie LEP and those matters raised by Council in its assessment of the development. The Department concludes that the development is consistent with the relevant provisions of Lake Macquarie LEP.

Lake Macquarie Development Control Plan 2014 (Lake Macquarie DCP)

The Lake Macquarie DCP includes specific development controls for the Lake Macquarie LGA. The development requires the construction of a new weighbridge office and amenities building onsite, however only minor construction works are required and they are generally consistent with the provisions of the DCP.

The proposed parking and access of the development are compatible with the character of existing industrial development in the surrounding area. The Department has consulted with Lake Macquarie City Council throughout the assessment process and has considered all relevant provisions of the DCP and those matters raised by Council in its assessment of the development (see **Section 6** of this report).

Appendix D – Recommended Instrument of Consent

Available on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/project/10491