

**Design
for a better
*future /***

Concrush Pty Ltd

Modification Report

Teralba Facility

wsp

January 2024

Public

Question today Imagine tomorrow Create for the future

Modification Report Teralba Facility

Concrush Pty Ltd

WSP

Level 3, 51-55 Bolton St

Newcastle NSW 2300

PO Box 1162

Newcastle NSW 2300

Tel: +61 2 4929 8300

Fax: +61 2 4929 8382

wsp.com

Rev	Date	Details
A	05/10/2023	Draft
B	30/01/2024	Final

	Name	Date	Signature
Prepared by:	Bernadette Quirk	30/01/2024	
Reviewed by:	Mark Maund	30/01/2024	
Approved by:	Mark Maund	30/01/2024	

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

This document may contain confidential and legally privileged information, neither of which are intended to be waived, and must be used only for its intended purpose. Any unauthorised copying, dissemination or use in any form or by any means other than by the addressee, is strictly prohibited. If you have received this document in error or by any means other than as authorised addressee, please notify us immediately and we will arrange for its return to us.



Table of contents

	Abbreviations	iv
	Executive summary	v
1	Introduction	1
1.1	Scope	1
1.2	The proponent	1
1.3	Project site	1
1.4	Overview of approved project.....	3
1.5	Overview of proposed modification	8
2	Strategic context	11
2.1	Need for waste reduction.....	11
2.2	Commonwealth alignment.....	11
2.3	NSW strategic alignment	11
2.4	Key features of the site/corridor	12
2.5	Likelihood of cumulative impacts.....	12
3	Description of modifications	13
3.1	Overview of the proposed modification.....	13
3.2	Detailed description of proposed modifications.....	16
3.3	Conditions of consent to be modified.....	20
3.4	Category of modification and consistency with approved project	22
4	Statutory context.....	24
4.1	<i>Commonwealth legislation</i>	24
4.2	State legislation	24
4.3	Other NSW legislation and EPI	25
4.4	Identification of statutory requirements	26
4.5	Statutory compliance	27

CONTENTS (Continued)

5	Assessment of impacts	28
5.1	Noise and vibration	28
5.2	Air quality	31
5.3	Traffic.....	33
5.4	Soil and water management.....	35
5.5	Biodiversity	39
5.6	Bushfire	40
5.7	Aboriginal heritage.....	41
5.8	Non-Aboriginal heritage.....	42
5.9	Socio-economic.....	43
5.10	Visual	44
5.11	Contamination	45
5.12	Waste management.....	46
5.13	Greenhouse gases	47
5.14	Hazard and risk.....	48
5.15	Cumulative	49
6	Justification of modified project	50
7	References	52
8	Limitations	53
8.1	Permitted purpose.....	53
8.2	Qualifications and assumptions	53
8.3	Use and reliance	53
8.4	Disclaimer	54

List of tables

Table 1.1	Approved and completed project elements, approved but not completed, and proposed modifications	5
Table 3.1	Proposed modification summary table.....	13
Table 3.2	Proposed modification elements and need for the proposed modification	16
Table 3.3	Proposed modifications to relevant consent conditions	20
Table 4.1	Other relevant Acts and SEPPs	25
Table 4.2	Summary of statutory requirements for the proposed modification	26
Table 5.1	Identified sensitive receiver types (from Table 2 of RCA, 2023)	28
Table 5.2	Operational noise criteria (from Table 4 of RCA, 2023).....	29

List of figures

Figure 1.1	Site location.....	2
Figure 1.2	Approved project Stage 1: Conceptual layout	6
Figure 3.1	Proposed modification: Stage 2 conceptual layout.....	23
Figure 5.1	Transport route for vehicle access from the approved project.....	34

List of appendices

Appendix A	Landowners consent letter
Appendix B	Updated project description
Appendix C	Statutory compliance table
Appendix D	Modification Noise Impact Assessment (RCA, 2023)
Appendix E	Green Waste Catchment Water Quality Assessment (Engeny, 2023)
Appendix F	Updated mitigation measures
Appendix G	AHIMS search result

Abbreviations

ACEH	Australian Circular Economy Hub
Action Plan	National Waste Action Plan 2020
ALGA	Australian Local Government Association
Concrush	Concrush Pty Ltd
Council	Lake Macquarie City Council
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
DPE	[former] NSW Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
LGA	Local Government Area
NSW	New South Wales
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
RtS	Response to Submissions prepared by Umwelt Australia Pty Limited in 2019
SSD	State Significant Development
The EIS	Environmental Impact Statement prepared by Umwelt Australia Pty Limited in 2018
tpa	Tonnes per annum
WARR	Waste Avoidance Resource Recovery Strategy
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2001</i>
Waste Strategy	National Waste Strategy 2018

Executive summary

Concrush has operated in the Teralba area since its establishment in 2002. The business was established after recognising the need for a construction and demolition recycling facility in the Lake Macquarie region. The approved Concrush Resource Recovery Facility Expansion (the approved project) is located at 21 Racecourse Road, Teralba, New South Wales (NSW) (Figure 1.1). The approved project is for the staged expansion and increase in the processing capacity of the existing resource recovery facility to 250,000 tonnes per annum (tpa) of general solid waste (non-putrescible) with a maximum storage capacity of 150,000 tonnes at any one time.

Conditions of SSD-8753 approval state that the receipt and processing of up to 250,000 tpa of general solid waste (non-putrescible) currently includes processing up to 5,000 tonnes of garden and wood waste annually, and provision that up to 200 tonnes of garden and wood waste can be stored onsite at any one time. Prior to project approval (SSD-8753), the Concrush development consent did not limit the maximum green waste inventory.

The proposed modification seeks consent for improvements to streamline operations and maintain environmental outcomes at the Teralba project site. The proposed modification includes improvements to site operations, and modifying the storage and processing capacity limits at the site, at any one time. Some elements of the proposed modification include modifying the internal site layout to increase the efficiency of operations, and modifying the hours of operation at the site to allow for commencing works from 6:00 am, crushing and processing in the evening period (permitted during northerly and easterly winds only), and operation of the site 24 hours seven days per week (to meet market demands) that would include loading, unloading and dispatch of trucks in the night-time period.

Specifically, the proposed modification seeks to:

- modify the processing capacity limit for garden and wood waste to 10,000 tpa
- modify the storage capacity limit for garden and wood waste to 2,000 tpa stored onsite at any one time
- modify the hours of operation at the site to allow for:
 - extending operation hours to commence operations at the site at 6:00 am
 - crushing and processing in the evening period between 6:00 pm and 10:00 pm; Monday – Saturday. This would result in crushing and processing between 6:00 am and 10:00 pm, permitted during northerly and easterly winds only
 - loading, unloading and dispatch of trucks in the night-time period between 10:00 pm and 7:00 am; Monday – Sunday as required. This would result in loading, unloading and dispatch of trucks 24 hours per day, seven days per weeks, to respond to market demand
- remove the requirement for a noise wall along the eastern and southern boundary of the project site
- operate lighting during the evening and night-time periods
- modify internal site layout including the location of the wheel wash, weighbridge, water tanks, car parking, removing the light vehicle exit point, and updating the “Processed Material Stockpiles” and “Raw Material Stockpiles and Processing Area” to be classified as “Raw Materials Stockpiles, Processed Material Stockpiles, and Processing Area” to allow for improved management and processing of the stockpiles through additional flexibility
- provide an additional four water tanks to the south of the site office to increase potential capacity of the upgraded internal water management system at the project site.

The application to modify SSD-8753 is made under Section 4.55(2) of the *Environmental Planning & Assessment Act 1979* (EP&A Act) and is considered substantially the same development as the approved project.

Construction

Environmental impacts associated with construction of the Stage 2 works, and/or construction of the proposed modification, are not expected to be generated, as the proposed modification would be carried out within the assessed project site footprint and in accordance with the consent.

Operation

Environmental impacts associated with operation of the proposed modification are expected to be limited to minor noise and vibration, air quality and social impacts. The surface water management system upgraded as part of the approved project is expected to be able to accommodate the modification to processing and storage capacity on site. Further detail about potential environmental impacts, and mitigation, for the proposed modification are described below.

Noise and vibration

A noise impact assessment (NIA) was prepared by RCA Australia (2023) (see Appendix D) to assess potential noise impacts as a result of the proposed modification and found the following:

- Condition B45, detailing the requirement for noise walls along the eastern and southern boundaries, is not required to achieve compliance with the adopted daytime criteria and would not serve to mitigate proposed evening or night time operations. Condition B45 can therefore be removed from consent conditions.
- Noise modelling, supported by attended noise monitoring carried out on 30 October 2023, indicate that unloading activities can occur 24 hours a day without being expected to result in noise impacts to nearby sensitive receivers.
- Noise modelling indicates that loading activities are expected to cause noise impacts during the night time period under the majority of prevailing wind conditions. However, as Concrush decarbonise their operations and look to replace older, diesel plant with newer, cleaner, quieter plant (such as electric plant), operational noise levels are expected to trend downwards as older plant are replaced.
- Crushing and processing ('screening') activities can occur at the project site during the evening period under northerly and easterly wind conditions without being expected to result in noise impacts to nearby sensitive receivers. It is again noted that the assessment has been based on the existing plant at the project site, and as diesel plant is replaced with quieter plant, crushing and processing noise levels would be expected to decrease.

Air quality

The proposed modification would include an increase to the proposed storage and processing capacity for garden and wood waste at the project site at any one time; however, does not involve an increase in the operational footprint or increase to the total annual processing and storage capacity of materials at the site. As such, the proposed modification is not expected to result in additional air quality and odour impacts.

Traffic

The proposed modification would include an increase to the proposed storage and processing capacity for garden and wood waste at the project site at any one time and modifying the operational hours at the facility. However, the proposed modification does not involve an increase to the total annual processing and storage capacity of materials at the site and would not result in an increase in traffic movements to and from the project site.

The proposed modification would not seek to increase the traffic movements into and out of the project site, rather the modification to operational hours (proposed 24 hours per day, seven days per week as required) would extend the potential hours that the nominated traffic may move into and out of the project site.

As such, additional impacts to traffic and transport conditions at and surrounding the site are not expected and an updated traffic impact assessment has not been prepared for the proposed modification. The current Traffic Management Plan (TMP) for operations at the project site would be updated to accommodate the proposed modification.

Soil and water

The proposed modification is not expected to result in changes to potential operational impacts to soils, flooding, and groundwater conditions at the project site. The proposed modification would result in changes to the surface water management system at the project site to accommodate modified green waste storage and processing capacities, and the proposed modifications to the internal site layout.

Surface water management system and water quality

The surface water management system at the project site was upgraded as part of the approved project. A Green Waste Catchment Water Quality Assessment was prepared by Engeny (2023) to assess the potential impacts of the proposed increase in storage and processing capacity at the project site.

Total Nitrogen (TN) and Total Phosphorus (TP) concentrations recorded during routine monitoring of the leachate dam and wetland (which were installed as part of the approved project) were recorded and have been used as a basis for the water quality assessment. The water quality results and the estimated TN and TP removal efficiencies (with the exception of one sampling event, in August 2023) indicate that the wetland was performing to design expectations and is likely to have additional capacity for nutrient removal given the lower influent concentrations.

The assessment also found:

- Based on historical water quality sampling, the constructed wetland at the project site is performing to design expectations and is likely to have additional capacity for nutrient removal given the lower influent nutrient concentrations.
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase nutrient concentrations in green waste catchment leachate/runoff.
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase the risk of discharges to receiving waters from the project site provided the green waste catchment area remains unchanged (i.e. there is no increase in green waste processing and storage area) from the currently approved catchment area (as this would increase the likelihood of spills from the green waste catchment to sediment dam 2).
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase the overall nutrient load generated, although an increase in the rate of processing of green waste is likely to generate additional nutrient load. However, given the performance of the constructed wetland (i.e. that it is meeting or exceeding design expectations) and considering additional water storage capacity at the project site, it is considered highly unlikely that nutrient loads in any off-site discharges from the project site would increase, provided the green waste catchment area is not increased (as this would increase the likelihood of spills from the green waste catchment to sediment dam 2).
- Nutrient load generation rates at the project site are inherently constrained by the available space to store and process green waste, as well as the limited availability of the shredder which is hired by Concrush to periodically shred stockpiled green waste.
- Nutrient concentrations and loads in green waste catchment leachate and runoff are dependent on a range of factors including climatic conditions, stockpile areas exposed to rainfall and processing rate, however, determining the degree to which each factor influences the concentrations and loads would require longer term data obtained from a very detailed monitoring program. It is considered that the benefit of implementing such a monitoring program is limited and the current monitoring program is adequate to indicate green waste catchment water management system performance.

- The existing monitoring program would be relied upon to develop an understanding of the baseline range in nutrient concentrations and loads generated under the current operating regime which would enable identification of any changes in green waste catchment water management system should operating conditions change (e.g. future changes to maximum storage and processing limits at the project site).

As such, potential impacts to water quality at and leaving the project site are not expected to be impacted through the increased processing capacity of the site, provided the green waste processing and storage areas do not increase in size, and monitoring and mitigation measures are implemented. Concrush would continue to install water tanks at the project site to capture rainwater for use as part of the project site's water management system, if required and identified through ongoing monitoring.

Socio-economic

The proposed modification does not involve an increase in the operational footprint or change to the general processing activities at the project site. As such, additional social impacts at and surrounding the site are not expected.

The proposed modification has the potential to result in minor additional social impacts to stakeholders and residents nearby the project site associated with the modified operational hours into the evening and night-time periods, and with the loading and unloading of trucks to 24 hours per day, seven days per week. However, potential additional social impacts associated with the proposed modification are expected to be minor and would be managed through engagement with the nearby residents about the proposed modification to operations at the project site. Potential complaints would be managed through the existing complaints handling process developed and implemented as part of the approved project.

The proposed modification is expected to achieve positive social and economic outcomes for the local economy as the extended operational hours would create an estimated extra three full-time equivalent employment opportunities at Concrush's Teralba facility. Increase processing capacity of green waste at the site would also have positive social outcomes for the broader local economy by recycling, for re-use, products that would potentially be destined for landfill.

Visual

The proposed modification would be carried out within the assessed project site footprint and generally, the potential impacts to the visual character of the area would be expected to remain consistent with the consent.

Additional artificial lighting would be required during evening and night-time operations, proposed as part of the modification. Potential impacts to the visual environment as a result of lighting during these periods may occur, however impacts are expected to be minor.

Waste management

The proposed modification does not involve an increase in the operational footprint or changed construction methodology and as such, additional impacts to waste streams and waste management at and surrounding the site are not expected.

The proposed modification to capacities at the project site would result in the increased tonnage of garden and wood waste stored and processed, which would increase the quantities of garden and wood waste destined for re-use as a recycled product. The increased capacities of garden and wood waste would be stored, handled, processed and managed in accordance with the existing management of waste and recycled products at the project site.

Other

Biodiversity

The proposed modification is not expected to result in significant changes to potential biodiversity impacts during operation as the proposed modification does not seek to expand the operational footprint.

Night-time movement of vehicles may result in light and noise impacts to wildlife. However, this is not expected to be significant as vehicles movements would be intermittent and as needed to meet market demand. Night-time use of lighting may also impact wildlife; however the site is heavily disturbed and not like to be utilised by wildlife.

Bushfire

The proposed modification is not expected to result in changes to bushfire risk and management during operation as the proposed modification does not seek to expand the operational footprint, or modify operational management practices, at the site.

As the proposed modification is not expected to result in additional impacts to bushfire risk at or surrounding the project site.

Heritage

The proposed modification is not expected to result in changes to potential Aboriginal or non-Aboriginal heritage impacts during operation as the proposed modification does not seek to expand the operational footprint at the site. Additional potential impacts to Aboriginal heritage and non-Aboriginal heritage at the site are not expected.

Contamination

The proposed modification is not expected to result in changes to potential soils and contamination impacts during operation as the proposed modification does not seek to expand the operational footprint or nature of processing operations.

Greenhouse gases

The proposed modification would not result in an increase to traffic entering and exiting the project site, despite the extended operational hours to allow for deliveries (loading/unloading) of trucks. The modification to operational hours (with loading, unloading and dispatch of trucks proposed 24 hours per day, seven days per week as required) would extend the potential hours that the nominated traffic may move into and out of the project site. Potential impacts associated with the operation of plant and equipment for crushing activities into the evening and night-time periods would not be expected to significantly increase the assessed Scope 1, Scope 2 and Scope 3 emissions generated from the site, as assessed within the EIS.

The proposed modification aims to improve site operation and efficiency, reducing emissions of plant and equipment during the site's operation. It is also noted that the recycled nature of Concrush products aims to reduce demand for timber/forest resources and aggregate/concrete materials that would otherwise be required to produce similar products.

Hazards and risk

The proposed modification to increase the storage and processing capacity of green waste at the project site has the potential to increase risk and hazards associated with stockpile management and combustion. As part of existing operations at the project site, Concrush implements practices and measures to adequately manage stockpiles and reduce potential combustion risk associated with storage of green waste product onsite (for example, aeration of green waste stockpiles). Concrush would continue to implement stockpile and waste product management practices for the increased product to be stored at the project site, to manage the risk of combustion and other hazards.

The proposed modification would be carried out within the project site footprint and would not include additional types of materials to be stored, processed or used at the site. As such, the proposed modification is not expected to increase hazard or risk associated with materials stored, processed and used at the site.

Cumulative

Proposed and approved developments are not expected to result in additional sensitive receivers relative to the project site or proposed modification as the developments are beyond the nearest current sensitive receivers captured in operational noise monitoring.

Traffic and transport impacts during construction may occur as a result of the cumulative operation of the developments surrounding the project site. However, due to the nature of the proposed modification, and the nature of the surrounding proposed and approved developments, the developments are considered to represent typical background growth in traffic movements in the area. Therefore, no significant cumulative impacts associated with the proposed modification is expected.

Cumulative noise and vibration impact to sensitive receivers, such as the aged care development, have been considered in the relevant noise section and no potential significant cumulative noise and vibration impacts were identified.

1 Introduction

1.1 Scope

This Modification Report has been prepared by WSP Australia on behalf of Concrush Pty Ltd (Concrush) to support an application to modify development consent State Significant Development (SSD) 8753 for the Concrush Resource Recovery Facility Expansion ('the proposed modification').

The approved Concrush Resource Recovery Facility Expansion (the approved project), is located at 21 Racecourse Road, Teralba, New South Wales (NSW) (Figure 1.1). The approved project is for the staged expansion and increase in the processing capacity of the existing resource recovery facility to 250,000 tonnes per annum (tpa) of general solid waste (non-putrescible) with a maximum storage capacity of 150,000 tonnes at any one time. Figure 1.2a and Figure 1.2b display the approved project site layout, staged to be developed as the approved project scales up production over time.

The approved project, classified as SSD in accordance with [the now superseded] State Environmental Planning Policy (State and Regional Development) 2011, was approved under SSD-8753 by a delegate of the Minister for Planning and Public Spaces on 27 March 2020.

The proposed modification seeks consent for improvements to streamline operations and maintain environmental outcomes at the project site. The proposed modification includes improvements to site operations, and modification of storage and processing capacity limits at the site, at any one time. Elements of the proposed modification include modifying the internal site layout to increase the efficiency of operations, and modifying the hours of operation at the site to allow for commencing works from 6:00 am, crushing and processing in the evening period (permitted during northerly and easterly winds only), and operation of the site 24 hours seven days per week (to meet market demands) that would include loading, unloading and dispatch of trucks in the night-time period.

The application to modify SSD-8753 is made under Section 4.55(2) of the *Environmental Planning & Assessment Act 1979* (EP&A Act) and is considered substantially the same development as the approved project. This Modification Report has been prepared to support the application and has considered the requirements outlined within the *State significant development guidelines – preparing a modification report: Appendix E to the state significant development guidelines* (DPIE, 2022).

1.2 The proponent

The proponent for the approved project and proposed modification is Concrush Pty Ltd ('Concrush'). Concrush was established in 2002 after recognising the need for a construction and demolition recycling facility in the Lake Macquarie region. Concrush is a locally owned and operated business based in Teralba, NSW.

1.3 Project site

Concrush's Teralba facility ('the project site') is located at 21 Racecourse Road, Teralba NSW (part Lot 2 DP220347), within the Lake Macquarie City Council local government area (LGA). The project site within its regional setting is shown in Figure 1.1. The project site covers an area of approximately 2.4 hectares (ha) and is located between Cockle Creek to the east and the Main North Rail Line to the west.

The project site is located on land which is leased by Concrush from B & S Scrap Metals Pty Ltd and a letter of consent for the submission of this Modification Application and report is presented in Appendix A.



PS206842
Modification Report Teralba Facility

Figure 1.1
Site Location

Legend

-  Watercourse
-  Railway
-  Road
-  Site Boundary



Coordinate system: GDA2020 MGA Zone 56
 Scale ratio correct when printed at A3
 1:10,000 Date: 4/09/2023

Data sources: DNRM, TMR, Translink, Geoscience Australia
 © WSP Australia Pty Ltd (WSP). Copyright in the drawings, information and data records (the Information) is the property of WSP. This document and the information are loaned to the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by WSP. WSP makes no representation, undertakes to study and accept the responsibility to any third party who may use or rely upon this document or the information. INCSI Certified Quality System to ISO 9001. © APPROVED FOR AND ON BEHALF OF WSP Australia Pty Ltd.

1.4 Overview of approved project

Concrush has operated in the Teralba area since its establishment in 2002. The business was established after recognising the need for a construction and demolition recycling facility in the Lake Macquarie region.

1.4.1 State Significant Development – SSD-8753

Following strong demand for recycling service and an increased focus on maximising recycling of construction materials by the community as well as State and local government, Concrush sought an increase to the processing and storage capacity of the existing facility. In 2017, Concrush commenced the assessment and approvals process to increase the processing and storage capacity of the existing facility at the Teralba site.

The project was deemed SSD requiring approval under [the then] Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). In 2018, in accordance with the requirements of the EP&A Act, Umwelt Australia Pty Limited (Umwelt) prepared an Environmental Impact Statement (EIS) and Response to Submissions, 2019 (RtS) to assess the potential environmental and social impacts of the proposed increase to the processing and storage capacity at the Teralba site. From herein this is referred to as ‘the EIS’ and ‘the RtS’.

In March 2020 a delegate of the Minister for Planning and Public Spaces granted Concrush approval for the project under SSD 8753. Concrush received approval for the staged expansion and increase in the processing capacity of the existing operations up to 250,000 tonnes (t) of general solid waste material recycled per annum (pa). As part of the approval, Concrush also received approval for the increase in waste storage capacity on-site to be sufficient for the increased level of throughput, anticipated to be up to 150,000 t of material storage at any point in time. From herein this is referred to as ‘the approved project’.

Based on the EIS, it was anticipated that the increase in processing and storage of recycled product would consist predominately of construction and demolition waste, with a small volume of green waste, acknowledging that this would vary based on market demand.

1.4.1.1 Components of the approved project

The proposed works to support the increase to the processing and storage capacity at the site included:

- **Hardstands** – to be constructed for material processing areas and stockpile areas.
- **Processing areas** – processing areas for the crushers and screens.
- **Waste and Product stockpile areas** – waste and product stockpiles established with a stockpile height of up to 10 metres, with up to 150,000 t of material stored onsite at any one time.

Changes to the Water Management System (during the RtS Phase), necessitated some alterations to the project site layout, resulting in minor changes to the shape of the two ‘Processed Material Stockpiles’ in Stages 1 and 2 of the approved project and the western end of the ‘Raw Materials Stockpile and Processing Area’ was also altered slightly to accommodate the relocated production compound.

- **Upgrade of existing facilities** – existing weighbridge and office would be upgraded, and the existing lunch room and maintenance shed would be relocated to facilitate the new site layout.
- **Waste tracking system** – existing Wasteman software would be used to track all inbound/outbound loads.
- **Production compound** – relocated lunch room, toilet and maintenance shed would be grouped together to form a compound for production staff. Changes to the Water Management System (during the RtS Phase), necessitated relocating the production compound (consisting of the maintenance shed, lunch room/toilet and car parking area) about 20 metres to the north.
- **Retail area** – this area would be restricted to light vehicles and small trucks with an area for tipping and an area containing concrete bays of products for sale.

- **Storage bays** – concrete storage bays constructed using concrete blocks.
- **Concrete walls** – concrete walls constructed using concrete blocks to prevent stockpiled material encroaching on swale drains and moving offsite. Concrete walls may also be used to delineate other areas of the site.
- **Green waste pasteurisation** – aeration system would be installed to allow more control of oxygen levels in the pasteurisation processes.
- **Wheel wash** – vehicle wheel wash bay would be constructed immediately after the exit weighbridge to reduce tracking of material onto public roads.
- **Concrete washout bay** – wet concrete washout bay would be constructed comprising a bunded, impermeable area with an isolated catchment. Wet concrete and agitator washout would be within the concrete washout bay.
- **Water management system** – existing Water Management System (WMS) would be upgraded involving resizing of existing sediment basins, new sediment basins, swale drains and a leachate dam and artificial wetland to treat nutrient runoff. Water tanks and associated poly pipe and pumps would be installed to allow collection and re-use of stormwater for dust suppression.

During the RtS phase, the WMS was revised to allow for increased onsite water detention through increased size of the two sediment dams. Sediment Basin 1 was designed to be approximately 55 by 15 metres compared to the original 30 by 4 metres. Sediment Basin 2 was designed to be approximately 52 by 14 metres compared to the original 16 by 6.6 metres.

- **Trommel screening machine** – trommel screening machine for sorting of green waste.
- **Primary jaw crusher** – existing primary jaw crusher would be replaced with more modern equipment.
- **Perimeter landscaping (mounds, fencing and lighting)** – landscape mounds would be established on the perimeter to limit visibility. A high security fencing and security lighting would also be installed.
- **Utilities** – existing Ausgrid connection, via a power pole in the north east corner of the site would be extended to the south west corner of the site via an underground connection.
- **Pug mill** – may be installed in the future to allow fast mixing of materials to produce products such as road base.
- **Ballast wash facility** – processing area may be dedicated to a ballast wash facility to allow for processing of rail ballast.

1.4.1.2 Staging of the approved project

It was anticipated during assessment that the volume of materials recycled and products sold would increase over a period of time up to the maximum production level of 250,000 tpa.

To efficiently meet the increase in demand for recycling and recycled products, the approved project was approved as staged development, with some elements of the site upgraded following consent, and other elements implemented as required when production levels were reached. The two project stages nominated in the EIS included:

- Stage 1 – to be developed upon receipt of all approvals required for the approved project (shown in Figure 1.2a)
- Stage 2 – to be developed at approximately 200,000 tpa up to 250,000 tpa (shown in Figure 1.2b).

1.4.1.3 Works carried out to date

Stage 1 has been constructed, and Stage 1 operations commenced at the project site in March 2023. Construction works for Stage 2 operations have commenced at the project site.

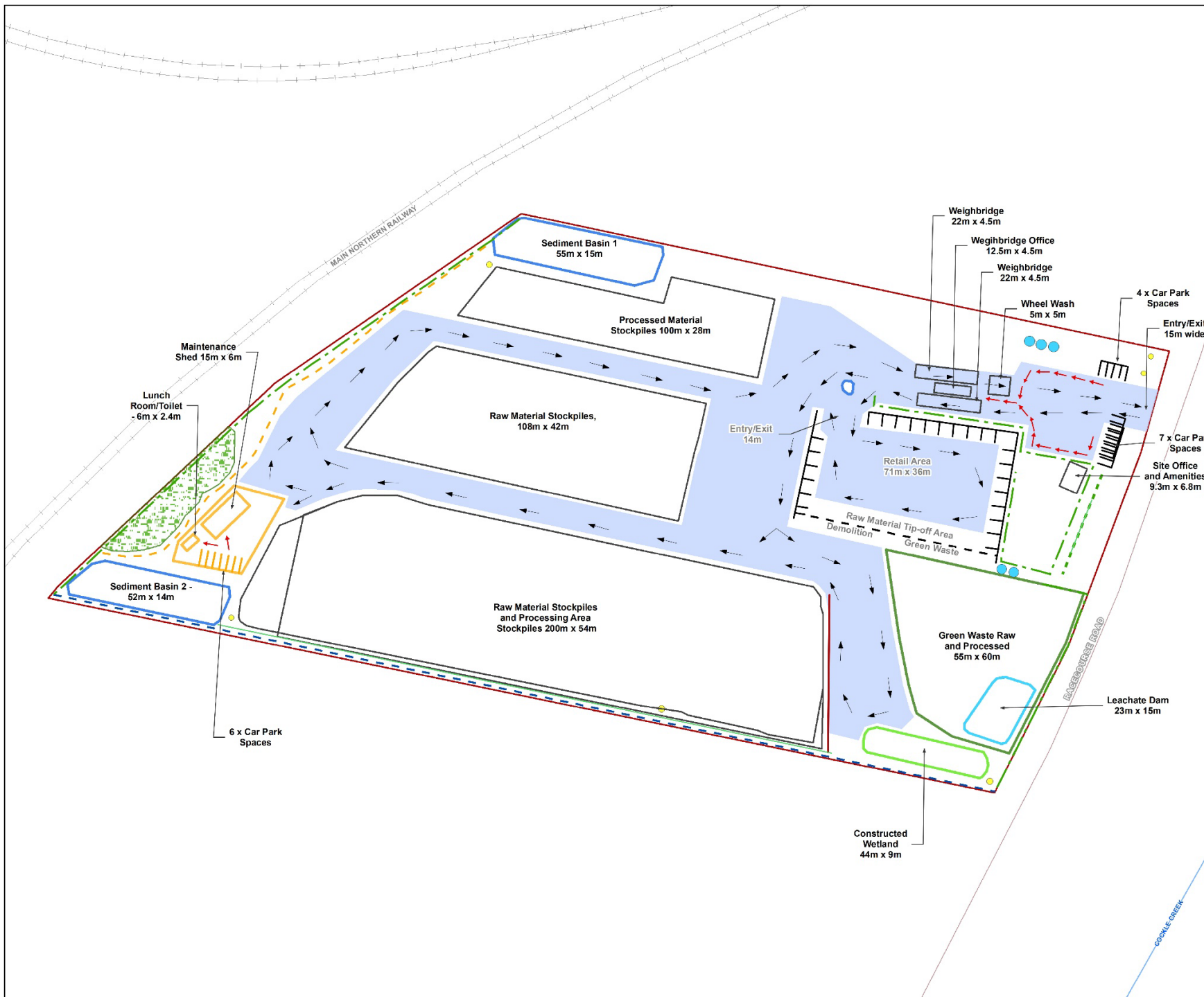
Work for Stage 1 operations at the project site has been completed, with the exception of some minor elements. Where these elements have not been completed, they would be carried out as part of Stage 2 construction, or modified.

Approved and completed project elements, approved but not complete, and proposed modifications, are detailed in Table 1.1.

Table 1.1 Approved and completed project elements, approved but not completed, and proposed modifications

Approved and completed	Approved but not completed	Proposed modification
<ul style="list-style-type: none"> — Construct and commission a new site entry/exit, as approved by Lake Macquarie City Council (LMCC) — Upgrade Water Management System, including constructing two sediment basins, a leachate dam, constructed wetland, install sprinklers and tanks. — Construct maintenance shed and lunchroom/toilet, with parking — Establish “Raw Material Stockpiles” and “Processing area Stockpiles” areas — Establish “Green Waste Raw and Processed” area — Establish site amenities and retail area — Construct heavy vehicle weighbridge and weighbridge office to the west of the site entry/exit point — Lining of Sediment Dam 1 — Establish landscape bund along part of the eastern boundary — Establish an Ausgrid connection at the site. 	<ul style="list-style-type: none"> — Construct wheel wash — Providing a roof on retail product area — Two coat seal of internal access road from new wheel wash to site exit — Commissioning new weighbridges — Construct noise wall along entire southern extent — Construct noise wall along the eastern boundary. 	<ul style="list-style-type: none"> — Relocate wheel wash — Two coat seal internal access road from wheel wash to site exit — Remove requirement for noise wall — Remove requirement for “Light Vehicle Exit” point — Rename “Raw Material Stockpiles” and “Processing area Stockpiles” areas to “Raw Materials Stockpiles, Processed Material Stockpiles, and Processing Area” — Modify limit of green waste processed and stored onsite at any one time within the “Green waste raw and processed” area.

Figure 1.2a
Approved Project Stage 1:
Conceptual Layout



Legend

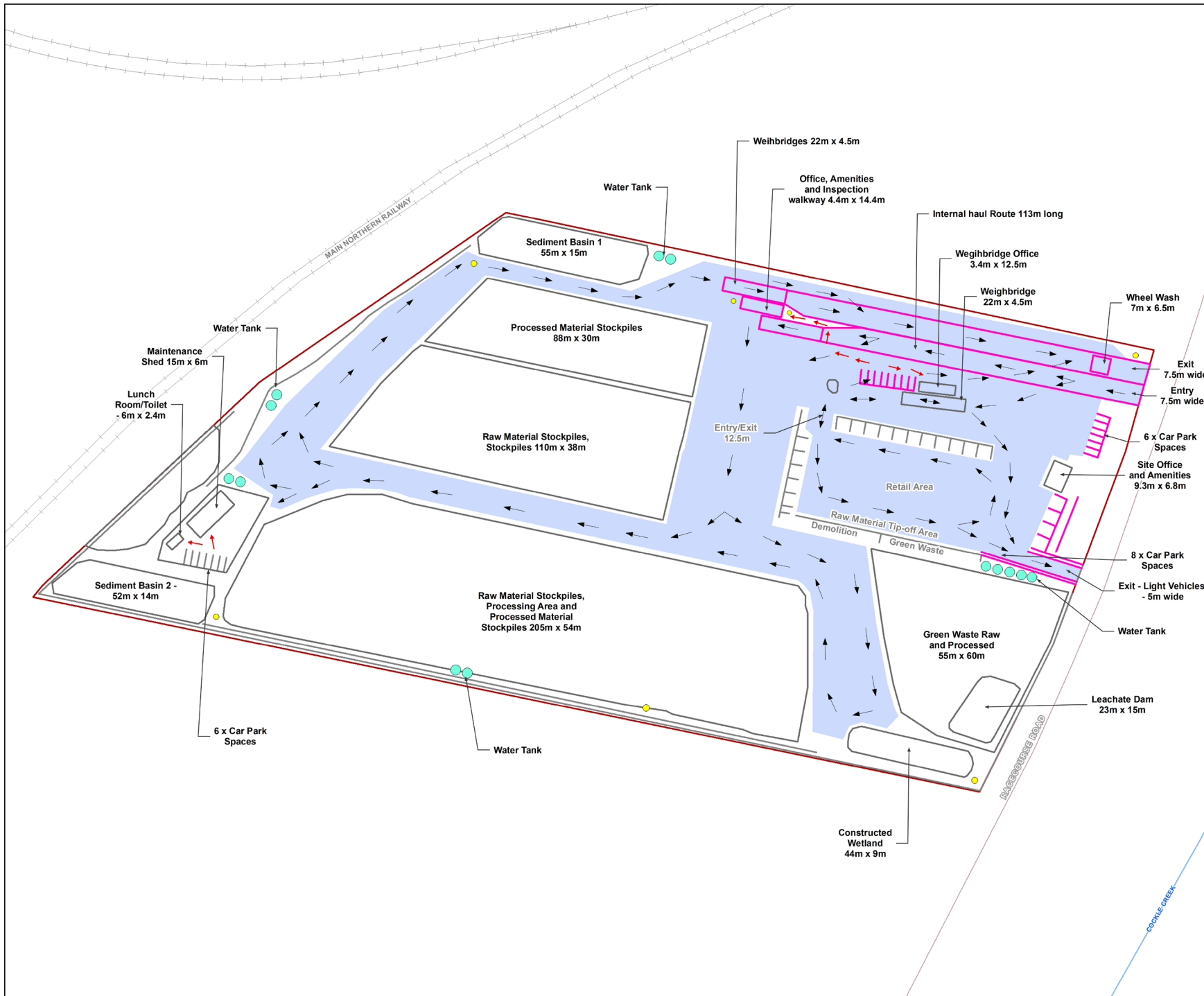
- Site Boundary
- Production Compound
- Constructed Wetland 44m x 9m
- Processing and Stockpile Areas
- Sediment Basin
- Existing Water Tank
- Existing Wetland Area with Buffer
- Green Waste Raw and Processed 55m x 60m
- Internal Roads/Hardstand Area unsealed
- Leachate Dam 23m x 15m
- Proposed Security Lighting
- ▶ General Vehicle Movement
- Pedestrian Movement
- Site Features
- Proposed 3m High Concrete Block Wall
- Existing 2m High Fence
- Existing Earth Bund
- Landscaped Earth Bund (1 in 100 Year Flood Mitigation)
- Proposed 2m High Fence
- Proposed 3.5m High Concrete Block Wall
- Raw Material Tip-Off Area
- Railway
- Road
- Watercourse



Coordinate system: GDA2020 MGA Zone 56
Scale ratio correct when printed at A3
1:1,300 Date: 30/01/2024

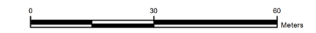
Data sources: DNRM, TMR, Translink, Geoscience Australia
© WSP Australia Pty Ltd (WSP) Copyright in the drawings, information and data records (the information) is the property of WSP. This document and the information are loaned to the use of the authorized recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by WSP. WSP makes no representation, undertakes to study and accept no responsibility to any third party who may use or rely upon this document or the information. NSW Certified Quality System to ISO 9001. © APPROVED FOR AND ON BEHALF OF WSP Australia Pty Ltd.

Figure 1.2b
Approved Project Stage 2:
Conceptual Layout



Legend

- Site Boundary
- Stage 2
- Site Features
- Proposed Security Lighting
- Water Tank
- Internal Roads/Hardstand Area un-sealed
- General Vehicle Movement
- Pedestrian Movement
- Road
- Railway
- Watercourse



Coordinate system: GDA2020 MGA Zone 56

Scale ratio correct when printed at A3

1:1,300 Date: 30/01/2024

Data sources: - DNRME, TMR, Translink, Geoscience Australia

© WSP Australia Pty Ltd ("WSP") Copyright in the drawings, information and data recorded (the information) is the property of WSP. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by WSP. WSP makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information. NCBS Certified Quality System to ISO 9001. © APPROVED FOR AND ON BEHALF OF WSP Australia Pty Ltd.

1.5 Overview of proposed modification

1.5.1 Context of the modification

In 2020, Concrush received approval for SSD-8753 to expand operations at their Teralba facility (the approved project). Concrush received approval for the staged expansion and increase in the processing capacity of the existing operations up to 250,000 tpa of general solid waste material recycled. Concrush also received approval for the increase in waste storage capacity onsite to be sufficient for the increased level of throughput, anticipated to be up to 150,000 t of material storage at any point in time.

Conditions of SSD-8753 approval state that the receipt and processing of up to 250,000 tpa of general solid waste (non-putrescible) currently includes processing up to 5,000 tonnes of garden and wood waste annually, and provision that up to 200 tonnes of garden and wood waste can be stored onsite at any one time. Prior to project approval (SSD-8753), the Concrush development consent did not limit the maximum green waste inventory.

Stage 1 works at the site commenced following approval of the project. Concrush has identified improvements required to streamline operations and maintain environmental outcomes and is seeking to modify some approved activities. Concrush has commenced Stage 2 construction works at the Teralba facility.

The proposed modification includes improvements to site operations and modification to the green waste storage and processing capacity limits at the site. Elements of the proposed modification include modifying the internal site layout to increase the efficiency of operations, and modifying the hours of operation at the site to allow for commencing works from 6:00 am; crushing and processing in the evening period during northerly and easterly winds only; and operation of the site 24 hours seven days per week (to meet market demands) that would include loading, unloading and dispatch of trucks in the night-time period.

The proposed modifications would require modifying the consent with regard to approved processing and storage capabilities, operational hours, and site layout of the facility at Teralba.

1.5.2 Need for the modification

Concrush provides an important service to supply recycled construction materials for vital projects that:

- retains haulage movements within local transport network and do not routinely cross into multiple LGAs
- recycles local waste and materials to keep waste from travelling through multiple LGAs
- has the potential to grow with population growth and the community's expectations.

The proposed modifications would provide more efficient operations onsite to allow Concrush to increase their operating capacity to the approved 250,000 tpa. It should be noted that additional processing is not required as part of this modification. Improved efficiency of operations would provide opportunity to receive material during all hours as construction of some infrastructure such as roads does not only occur during standard construction hours.

The modifications would not significantly increase the potential environmental impacts identified in the EIS and would support critical infrastructure projects through recycling of and provision of construction materials to local government and industry. Additionally, the proposed modification would support a circular economy and reduction in landfill in line with both Commonwealth and NSW waste avoidance and recovery strategies (refer to Chapter 2).

Details of the proposed modification are provided in Chapter 3 and an assessment of potential impacts associated with the proposed modification are provided in Chapter 5.

1.5.2.1 Operational changes

Green waste processing and storage (modify tonnage limits at any one time)

In section 1.2 of the EIS (Umwelt, 2018) it was noted that the increase in processing and storage of recycled product for the approved project would be expected to consist predominately of construction and demolition waste with a small volume of green waste, dependent on market demand. It is also noted that prior to the project approval (SSD-8753), the Concrush development consent did not limit the maximum green waste inventory.

The proposed modification to modify the storage and processing capacity of green waste onsite, at any one time, seeks to respond to the increased supply and market demand for green waste products recycled at the site. The proposed modification seeks to modify the 5,000 tpa processing limit to 10,000 tpa and modify the 200 tonnes at any one time storage limit to 2,000 tonnes of green waste at the site, at any one time. This would allow for periodic increases in storage and processing capacity of green waste at the site, for recycling as useful product, which would reduce green waste destined for landfill in the LGA.

Hours of operation (24/7 receipt and dispatch of material)

The proposed modification to operational hours also seeks to respond to market demand, aiming to increase operational flexibility to meet the demand for receiving recyclable material while construction is occurring and to provide recycled material resources materials for local projects. Proposed hours are:

- commencing works from 6:00 am
- crushing and processing in the evening period (6:00 pm until 10:00 pm), permitted during northerly and easterly winds only (refer to Appendix D)
- operation of the site 24 hours seven days per week (to meet market demands) that would include loading, unloading and dispatch of trucks in the night-time period (10:00 pm until 6:00 am).

The proposed changes to operating hours would reduce need for double handling of material during evening and night-time infrastructure works and provide a site to direct recyclable material during construction. The changes would not result in changes to overall annual operating capacity.

1.5.2.2 Site layout and design

The proposed modification would include changes to the approved site layout, as presented for the Stage 2 operations in the EIS and the RtS.

The modified site layout has been proposed to increase efficiency of operations at the site, and to respond to the SSD consent (SSD-8753). A light vehicle exit point was proposed to be located along the central part of the eastern boundary, with a heavy vehicle entry/exit point to the north along the eastern boundary. The light vehicle exit point is proposed to be removed from the Stage 2 layout, and all traffic would use the existing entry/exit point to the north, before separating to use separate internal light vehicle and heavy vehicle access roads and weighbridges.

Subsequent internal site layout modifications have been proposed to improve efficiency of operations, maintain safety, and minimise environmental impacts considering the combined traffic entry/exit point. Additionally, improved site operations would involve additional options in stockpile management by removing restrictions and renaming parts of the site from “Raw Material Stockpiles” and “Processing area Stockpiles” to “Raw Materials Stockpiles, Processed Material Stockpiles, and Processing” areas to provide flexibility for operations within the site boundaries. This flexibility would increase opportunity for Concrush to adjust to market demands and provide recycled material to the market as available and appropriate.

1.5.3 *Analysis of feasible alternatives*

Alternatives to the modification for the Concrush facility were considered in the planning stage:

- **Option 1** – The ‘do nothing’ option. This option was not preferred as it would not meet the desired outcomes of increased construction and demolition waste recycling, increased waste potentially diverted from landfill and increased supply to meet demand and support a circular economy.
- **Option 2** – An alternative site. This option is not preferred as it would involve introducing potential impacts to a new area.
- **Option 3** – Modification to existing consent to provide additional green waste storage and processing (at any one time), for more efficient operation and capabilities to efficiently manage the approved 250,000 tpa capacity for the facility within an existing disturbed area.

Option 3 is the preferred option as the proposed modifications would allow Concrush to serve critical infrastructure projects more effectively through the modification to operational hours, storage and processing of an increased amount of green waste at any one time (to respond to market demands) and loading, unloading and dispatch of trucks 24 hours a day, seven days per week.

2 Strategic context

2.1 Need for waste reduction

In 2018, the Commonwealth Department of Environment and Energy (now the Commonwealth Department of Climate Change, Energy, the Environment and Water), found that ‘Australia generates more waste than the average Western economy and is recycling less than average (Parliament House, 2020)’. Australia currently sends 40 per cent of waste to landfill, that has increased by around 12 per cent over the last decade (Australian Local Government Association [ALGA], 2023).

A circular economy provides a new approach to the delivery of products and services. The circular economy is underpinned by three key principles:

- design out waste and pollution
- keep products and materials in use
- regenerate natural systems (Australian Circular Economy Hub [ACEH], 2023).

As such, a circular economy should keep materials and resources in use rather than landfills, through the recycling and reuse of materials (Parliament House, 2020). Facilities such as Concrush are critical key components of creating a circular economy and reducing the waste Australia sends to landfill. Through the expansion and modifications providing a more efficient site layout, the proposed modifications would enhance the facilities ability to contribute to the circular economy and reduce waste.

2.2 Commonwealth alignment

The Commonwealth government is committed to developing a more circular economy through its implementation of the National Waste Strategy 2018 (Waste Strategy) and the National Waste Action Plan 2020 (Action Plan). The Waste Strategy and Action Plan promote a more efficient and better waste management to recover resources, provide employment opportunities while providing better environmental outcomes (ALGA, 2023).

Key targets relevant to the proposed modification that are outlined in the Action Plan include:

- increase the average recovery rate from all waste to 80 per cent by 2030
- increase the use of recycled materials by governments and industry (Parliament of Australia, 2020).

Increasing the processing and storage capacity (at any one time) at the Concrush facility would allow increased recycling of construction and demolition waste and promote a circular economy within the Hunter. These recycled materials provide construction materials to local government and industry for critical infrastructure projects, which aligns with Australia’s waste strategy and action plan.

2.3 NSW strategic alignment

The NSW government and specifically the Environment Protection Agency (EPA) currently operate a five yearly Waste Avoidance Resource Recovery Strategy (WARR). The WARR outlines future directions and supports investment in infrastructure, encourages innovation and improvements in recycling behaviour (EPA, 2014). Two key elements of the WARR that the proposed modification would help achieve are:

- increasing construction and demolition waste recycling to 80 per cent
- increasing waste diverted from landfill to 75 per cent.

Increasing the capacity of the Concrush facility would allow increased recycling of construction and demolition waste. This would, in turn, result in less waste potentially going to local landfills such as Awaba and Summerhill and would assist in achieving the NSW government waste avoidance and resource recovery goals.

There has been a strong ongoing demand for Concrush's products. With population growth in the region this demand would continue and likely increase. The proposed modification would allow Concrush to continue to service this demand. Currently Concrush is occasionally required to turn away construction contractors looking to recycle their waste due to the existing site constraints such as available space and the stockpile limit and operational hours.

There has been a strong ongoing demand for Concrush's products. With population growth in the region this demand would continue and likely increase. The proposed modification would allow Concrush to continue to service this demand.

As the proposed modification would increase the amount of recycled product available, this would also likely reduce the volume of virgin material required to be quarried to meet the increasing market demand for resources. The facility would also continue to make a contribution to the local and regional economies through employment of 20 people during operations when at full capacity. The capital expenditure during the construction phase would also add to the local and regional economies, further enhancing the economic benefits of the Concrush operations.

Local and State government would receive economic benefits, including revenue from taxes and levies. In addition, the Commonwealth government would also receive revenue from the proposed modification and ongoing operations, through means including company tax, excise on imported equipment and goods, fuel excise and other taxes such as goods and services tax and income tax.

2.4 Key features of the site/corridor

The Concrush facility was established in 2002 and has been operating at its Teralba location since that time. The proposed modification would require changes to the existing site layout to accommodate an increase to stockpile and processing areas to facilitate the increased throughput. The current site, and hence the modification of the project site for the proposed modification is considered suitable for the following reasons:

- appropriate industrial zoning
- good access to the local and regional road network
- separation distance of about 200 metres to nearest sensitive receivers
- use of an existing brownfield site negates the need for potential disturbance of greenfield areas
- strategic location to service construction contractors and the local community
- a low number of complaints have been received over a long period of time with regards to Concrush's current operations at this location.

2.5 Likelihood of cumulative impacts

The project site is located within Teralba NSW. Other approved or proposed projects in the area include the Bunderra Estate and seniors housing subdivision, the Metromix Teralba Quarry, and the Lake Macquarie Costco.

Bunderra Estate and an associated seniors housing subdivision at Boolaroo have now been developed. The Metromix Teralba Quarry has an approved development application for works as part of its existing development. Costco Lake Macquarie has been constructed and is operational at 2A Main Street, Boolaroo.

Other proposed and approved developments in the vicinity of the project site include various subdivisions developments to the east and the south west, including a number of residential subdivisions approved and under construction east of Main Road at Teralba.

The potential for cumulative impacts in relation to the proposed modification is considered unlikely due to the project site location and the scale and nature of proposed and approval projects in the area. Further consideration of cumulative impacts are considered in Section 5.15.

3 Description of modifications

3.1 Overview of the proposed modification

The proposed modification would modify approved processing and storage capabilities, operational hours, and site layout of Concrush’s Teralba facility from the operations as approved as SSD-8753. The proposed modification compared to the approved project is described in Table 3.1, a full detailed project description (including the approved project description with detail of the proposed modification) is included as Appendix B.

Table 3.1 Proposed modification summary table

Element	Approved project	Proposed modification
Operational changes		
Annual processing capacity of green waste	Receive and process up to 250,000 tonnes of general solid waste (non-putrescible) per annum, which includes no more than 5,000 tonnes of garden and wood waste.	Modify the processing capacity limit for garden and wood waste to 10,000 tpa. Ongoing water quality monitoring at the site that indicates water quality outcomes associated with leachate at the site can be adequately managed in accordance with environment protection licence (EPL) conditions as storage and processing capacities of green waste at the site does not dictate water quality outcomes alone (refer to Appendix E).
Maximum storage capacity of green waste	Store up to 150,000 tonnes of general solid waste (non- putrescible) at any one time, which includes 200 tonnes of garden and wood waste.	Modify the storage capacity limit for garden and wood waste to 2,000 tpa stored onsite at any one time. Modify the nominated 200 tonne (at any one time) storage capacity limit for garden and wood waste at the site based on the assessment findings that storage capacity of green waste at the site does not dictate water quality outcomes alone (refer to Appendix E).

Element	Approved project	Proposed modification
Hours of operation	<p>Monday to Saturday: 7 am to 10 pm Sunday and Public Holidays: 8 am to 6 pm.</p> <p>During the evening period operations are limited to screening and stockpiling or the loading and dispatch of trucks. No crushers to be used during the evening period.</p> <p>Works outside of these hours may be undertaken where:</p> <ul style="list-style-type: none"> — works are inaudible at the nearest sensitive receivers — works are required for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons — it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm. 	<p>Modify the hours of operation at the site to allow for:</p> <ul style="list-style-type: none"> — extending operation hours to commence operations at the site at 6:00 am — crushing and processing in the evening period between 6:00 pm and 10:00 pm; Monday – Saturday. This would result in crushing and processing between 6:00 am and 10:00 pm, permitted during northerly and easterly winds only — loading, unloading and dispatch of trucks in the night-time period between 10:00 pm and 7:00 am; Monday – Sunday as required. This would result in loading, unloading and dispatch of trucks 24 hours per day, seven days per weeks, to respond to market demand.
Lighting	A 2 metre high security fence and security lighting on high poles to be installed along parts of the site perimeter.	Operate lighting during the evening and night-time periods to respond to proposed modification to operational hours at the project site.
Site layout and design		
Internal access roads	Establish internal access roads with two coat seal (refer to Figure 1.2).	<p>Modify internal access road layout and seal modified internal access roads between wheel wash and site exit (refer to Figure 3.1).</p> <p>The modification is proposed to provide a more efficient layout with improved operation and efficiency, and to minimise dust emissions leaving the project site.</p>
Site entry/exit	Widen site access and install sliding gate and construct a new exit onto Racecourse Road from the retail area for light vehicles (refer to Figure 1.2).	Remove the light vehicle exit point “Exit-Light Vehicles” (refer to Figure 3.1) as an alternative vehicle access point has been approved by Lake Macquarie City Council (LMCC) and constructed.
Weighbridge and wheel wash	Establish wheel wash, re-configure existing exit only weighbridge to allow for vehicle exit and entry to facilitate entry to the site, relocate the existing exit weighbridge, construct a new entry weighbridge and establish the new weighbridge office (refer to Figure 1.2).	Relocate the wheel wash from the north eastern portion of the site to the north western boundary of the site to respond to final location and layout of the site entry/exit point, as approved by LMCC, and to tie in to the modified internal access road layout (refer to Figure 3.1).

Element	Approved project	Proposed modification
		<p>The existing weighbridge and office would be retained in the location per Stage 1 of the approved project. This would vary from the proposed removal/relocation of the exit weighbridge proposed for Stage 2 of the approved project. The existing weighbridges and office, in the location per Stage 1 of the approved project, would be retained for light vehicle entry/exit while heavy vehicles would use the weighbridges to the west, constructed as part of the approved project.</p>
Internal water management system	<p>Augment the existing water management system to incorporate the leachate dam, constructed wetland, additional sediment basins, drainage swales, flood mitigation bund, water storage tanks and sprinkler systems (refer to Figure 1.2).</p>	<p>Relocate water tanks to the western side of the maintenance shed and the eastern side of the site office to locate the water tanks closer to the pump and sediment basins onsite (refer to Figure 3.1).</p> <p>Allow for the provision of an additional four water tanks to the south of the site office to increase potential capacity of the upgraded internal water management system at the project site.</p>
Light vehicle parking spaces	<p>Provide a total 6 light vehicle car park spaces nearby the maintenance shed (refer to Figure 1.2).</p> <p>Provide a total 14 light vehicle car park spaces nearby the site office and weighbridge office (refer to Figure 1.2).</p>	<p>Provide a total of ten light vehicle car park spaces nearby the maintenance shed and a total 15 light vehicle parking spaces nearby the retail area and site office (refer to Figure 3.1).</p> <p>This includes the provision of one disabled parking space.</p>
Stockpiling and material processing areas	<p>The approved project includes a site layout that comprises two 'Processed Material Stockpiles' areas in the site's north, a 'Raw Material Stockpile and Processing Area' in the site's south, and a 'Green Waste Raw and Processed' area in the site's east (refer to Figure 1.2).</p>	<p>Update the areas marked "Processed Material Stockpiles" and "Raw Material Stockpiles and Processing Area" to be referred to and classified as "Raw Materials Stockpiles, Processed Material Stockpiles, and Processing Area" (refer to Figure 3.1).</p> <p>This modification would allow for improved management and processing of the stockpiles through additional flexibility.</p>
Noise wall	<p>Construct a concrete block noise wall on the eastern and southern perimeters of the 'raw material stockpiles and processing area', to be maintained during the life of the development (refer to Figure 1.2).</p>	<p>Remove the requirement for a noise wall along the eastern and southern boundary of the site with the lower level of concrete blocks along the boundary to be retained as a site management measure to prevent stockpile material entering the swales onsite, and for ease of stockpile management.</p>

3.2 Detailed description of proposed modifications

The proposed modification elements, and justification and need for the proposed modification, is described in Table 3.2.

Table 3.2 Proposed modification elements and need for the proposed modification

Modification	Description
Site layout and design	
Internal access roads	<p>The approved project seeks to establish internal access roads with two coat seal, as depicted in Figure 1.2. The proposed modification seeks to modify the internal access road layout and seal selected modified internal access roads.</p> <p>In accordance with Condition of Consent (CoC) B28 and B29, prior to the commencement of Stage 1 construction, design plans were submitted by Concrush to LMCC for Racecourse Road access works, to obtain approval for the works under section 138 of the <i>Roads Act 1993</i>, with the road works required to be completed to the satisfaction of Council.</p> <p>LMCC have approved the design and construction of a site entry/exit point to the north of the retail area and the proposed “Exit-Light Vehicles” point on the eastern boundary is not required. As such, the proposed modification of the internal access road layout is required to respond to the final location and layout of the site entry/exit point, constructed as approved by LMCC.</p> <p>The proposed modification to internal access road layout and traffic movements at the site seeks to provide safe entry and exit for heavy and light vehicles using the site (refer to Figure 3.1). Sealing internal access roads between the wheel wash and site exit would aim to further reduce potential dust emissions from trucks leaving the site.</p>
Site entry/exit	<p>The approved project included provision to widen the site access, and construct a new exit onto Racecourse Road from the retail area for light vehicles (refer to Figure 1.2). LMCC have approved the design and construction of a site entry/exit point to the north of the retail area and the proposed “Exit-Light Vehicles” point on the eastern boundary is not required.</p> <p>As such, the proposed modification seeks to remove the light vehicle exit point “Exit-Light Vehicles” as an alternative vehicle access point was approved by LMCC and has subsequently been constructed. Light vehicles would use the approved and constructed entry/exit point to the north, with a separate weighbridge and traffic movement proposed to deviate this traffic from heavy vehicles (refer to Figure 3.1).</p>
Wheel wash and weighbridge	<p>The approved project included provision to establish a wheel wash, re-configure the existing ‘entry only’ weighbridge to allow for vehicle exit and entry to the site, relocate the existing exit weighbridge, construct a new entry weighbridge and establish a new weighbridge office (refer to Figure 1.2).</p> <p>The proposed modification seeks to relocate the wheel wash from the north eastern portion of the site to the north western boundary of the site in response to the final location and layout of the site entry/exit point, as approved by LMCC, and also aims to tie in to the modified internal access road layout (refer to Figure 3.1).</p> <p>Sealing internal access roads and the proposed placement of the wheel wash aims to further reduce potential dust emissions from trucks leaving the site. The proposed modification would be carried out to help meet the requirements of CoC B37, relating to dust minimisation.</p> <p>The proposed modification to weighbridge locations would include retaining the existing weighbridges and office at the site as per the Stage 1 configuration for entry/exit. Heavy vehicles would use the entry and exit weighbridge and office as approved for Stage 2 of the approved project. These modifications would increase the efficiency of vehicle movements to and from the site.</p>

Modification	Description
Internal water management system	<p>The approved project includes provision to augment the existing water management system to incorporate the leachate dam, constructed wetland, additional sediment basins, drainage swales, flood mitigation bund, water storage tanks and sprinkler systems (refer to Figure 1.2).</p> <p>The proposed modification seeks to relocate water tanks to the western side of the maintenance shed and the southern site of the site office (refer to Figure 3.1). This modification would locate the water tanks closer to the pump and sediment basins onsite.</p>
Light vehicle parking spaces	<p>The approved project is required to provide 20 car parking spaces. The approved project site layout provides six light vehicle car park spaces nearby the maintenance shed, eight car spaces nearby the weighbridge, and six car park spaces nearby the site office (refer to Figure 1.2).</p> <p>The proposed modification seeks to provide ten light vehicle car park spaces nearby the maintenance shed and 15 light vehicle parking spaces nearby the retail area and site office (refer to Figure 3.1). This would result in a total 25 car parking spaces at the project site. This includes the provision of one disabled parking space.</p> <p>The proposed modification is required to respond to final location and layout of the site entry/exit point, and to tie in to the modified internal access road layout and water tank relocation. The proposed modification would increase the car parking capacity to the amount provided for the approved project by five car spaces.</p>
Stockpiling and material processing areas	<p>The approved project includes a site layout that comprises two ‘Processed Material Stockpiles’ areas in the site’s north, a ‘Raw Material Stockpile and Processing Area’ in the site’s south, and a ‘Green Waste Raw and Processed’ area in the site’s east.</p> <p>The approved project describes the activities undertaken within the material processing areas to include: trucks tipping, waste inspection, waste receipt, stockpiling, mixing, grading, sorting, pulverising, primary crushing, electromagnetic steel capture, vacuum foreign waste removal (such as plastic and paper), sorting, multideck screening and sizing of material, secondary and tertiary crushing (cone crusher and impacters), shearing (stumps and logs), material volume measuring, material discharge using automated stockpiles and use of mobile loaders. Power generation systems including diesel and electric generators would be used within the material processing areas.</p> <p>The proposed modification seeks to update the areas marked ‘Processed Material Stockpiles’ and ‘Raw Material Stockpiles and Processing Area’ to be combined and classified as ‘Raw Materials Stockpiles, Processed Material Stockpiles, and Processing Area’ (refer to Figure 3.1).</p> <p>The modification would allow for improved management and processing of the stockpiles during operations at the Concrush facility. The proposed site layout would make the processing and stockpiling areas more accessible during operations, and would reduce the movements of vehicles internally at the site, thus reducing plant emissions and running expenses.</p>

Modification	Description
Noise wall	<p>The proposed modification seeks to remove the requirement for a noise wall along the eastern and southern boundary of the site.</p> <p>RCA have updated the Noise Impact Assessment (NIA) prepared for the EIS for the approved project. The updated assessment (RCA, 2023) is based on minor proposed site layout changes and current plant at the project site, and supports Concrush’s request to remove the conditions of consent that requires construction and maintenance of an eastern and southern noise wall at the project site. The NIA (RCA, 2023) is attached as Appendix D and the outcomes of the assessment are summarised in Section 5.1.</p> <p>One layer of concrete blocks (around one metre tall) from the concrete wall would be retained within the stockpiling and processing area (and would continue to be extended) for efficient stockpile management, to reduce dust emissions through transfer of products, and for water quality and sedimentation management at the project site by preventing stockpiles from entering the swale drains along the site boundary. This would be maintained, and extended, during the life of the development (refer to Figure 1.2).</p>
Operational changes	
Annual processing capacity and maximum storage capacity of green waste	<p>Operations at the site currently include the receipt and processing of up to 250,000 tpa of general solid waste (non- putrescible), which includes no more than 5,000 tonnes of garden and wood waste. Operations at the site limit the maximum storage capacity of up to 150,000 tonnes of general solid waste (non- putrescible) at any one time, which includes 200 tonnes of garden and wood waste.</p> <p>The proposed modification seeks to modify the 5,000 tonne processing limit to 10,000 and modify the 200 tonnes at any one time storage limit to 2,000 tonnes of green waste at the site.</p> <p>In section 1.2 of the EIS (Umwelt, 2018) it was noted that the increase in processing and storage of recycled product for the approved project would be expected to consist predominately of construction and demolition waste with a small volume of green waste, dependent on market demand. It is also noted that prior to the project approval (SSD-8753), the Concrush development consent did not limit the maximum green waste inventory.</p> <p>The proposed modification to increase the storage and processing capacity of green waste onsite seeks to respond to the increased supply and market demand for green waste products recycled at the site. The capacity to store and process a larger quantity at any one time also allows Concrush to scale up and down production to meet market demands through peak and trough periods. This increase in storage and processing capacity of green waste at the site, for recycling as useful product, would also reduce green waste destined for landfill in the LGA.</p> <p>A Green Waste Catchment Water Quality Assessment (Engeny, 2023) prepared to support this modification report, concluded that an increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to:</p> <ul style="list-style-type: none"> — increase nutrient concentrations in green waste catchment leachate/runoff — increase the overall nutrient load generated through the storage, processing and handling of green waste provided the processing rate does not increase — increase the risk of discharges to receiving waters from the project site provided the green waste catchment area remains unchanged from the current catchment area, and that the constructed wetland is performing to design expectations and is likely to have additional capacity for nutrient removal.

Modification	Description
Hours of operation	<p>The approved project is permitted to operate from 7 am to 10 pm Monday to Saturday, and 8 am to 6 pm on Sunday and Public Holidays. Under the current approval, during the evening period operations are limited to screening and stockpiling or the loading and dispatch of trucks. Crushers are not permitted to be used during the evening period.</p> <p>Works outside of the approved hours may be undertaken where:</p> <ul style="list-style-type: none"> — works are inaudible at the nearest sensitive receivers — works are required for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons — it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm. <p>The proposed modification seeks to modify the hours of operation to be 24 hours seven days per week by allowing for the loading, unloading and dispatch of vehicles continuing during the night-time period, on a 24 hour basis, to respond to market demand. The proposed modification also seeks to allow for crushing and processing from Monday to Saturday 6:00 am to 10:00 pm, permitted during northerly and easterly winds only. The proposed modification would allow the facility to respond to market demand, increasing operational flexibility to meet the demand for recycled material resources materials as needed.</p> <p>The provision of crushing and processing during the evening, and loading, unloading and dispatch of vehicles during night-time periods, combined with the starting of operations at 6:00 am and the increased processing and storage capacity of green waste at the site, would also have positive outcomes for the broader local economy by recycling, for re-use, products that would likely be destined for landfill.</p>
Lighting	<p>The proposed modification seeks to operate lighting during the evening and night-time periods to respond to proposed modification operational hours. Lighting during these periods would be required to ensure the safety of staff during evening and night-time operations at the project site.</p> <p>Lighting at the project site during the evening and night-time periods would be installed and operated in accordance with <i>Australian Standard (AS) 4282—1997: Control of the obtrusive effects of outdoor lighting</i> (Council of Standards Australia, 1997).</p>

3.3 Conditions of consent to be modified

The current operations at Concrush’s Teralba site have been assessed and approved under SSD-8753. The proposed modification seeks to modify or remove conditions of consent that relate to the approved project, as provided within the Development Consent, issued by a delegate of the Minister for Planning and Public Spaces under delegation, on 27 March 2020. The consent conditions and proposed modification to consent conditions are outlined in Table 3.3.

Table 3.3 Proposed modifications to relevant consent conditions

Condition reference	Approved condition (SSD-8753)	Proposed modification to condition
A2	<p>TERMS OF CONSENT</p> <p>A2. The development may only be carried out:</p> <p>(a) in compliance with the conditions of this consent;</p> <p>(b) in accordance with all written directions of the Planning Secretary;</p> <p>(c) in accordance with the EIS and Response to Submissions;</p> <p>(d) in accordance with the Development Layout in Appendix 1. and</p> <p>(e) in accordance with the management and mitigation measures in Appendix 2.</p>	<p>This modification report seeks to modify the terms of consent within condition A2, namely (a) conditions of consent, (d) development layout and (e) management and mitigation measures that relate to the approved project.</p> <p><u>Modify A2 to the following:</u></p> <p>A2. The development may only be carried out:</p> <p>(a) in compliance with the conditions of this consent;</p> <p>(b) in accordance with all written directions of the Planning Secretary;</p> <p>(c) in accordance with the EIS, RtS and the modification report;</p> <p>(d) in accordance with the Development Layout in Appendix 1. and</p> <p>(e) in accordance with the management and mitigation measures in Appendix 2.</p>
A7	<p>LIMITS OF CONSENT</p> <p>Waste</p> <p>A7. The Applicant must not:</p> <p>(a) receive or process more than 250,000 tonnes of general solid waste (non- putrescible) per annum, which includes no more than 5,000 tonnes of garden and wood waste; and</p> <p>(b) store more than 150,000 tonnes of general solid waste (non- putrescible) at any one time, which includes 200 tonnes of garden and wood waste.</p>	<p><u>Modify Condition A7 to the following:</u></p> <p>(a) receive or process more than 250,000 tonnes of general solid waste (non- putrescible) per annum, which includes no more than 10,000 tonnes of garden and wood waste; and</p> <p>(b) store more than 150,000 tonnes of general solid waste (non- putrescible) at any one time, which includes 2,000 tonnes of garden and wood waste.</p>

Condition reference	Approved condition (SSD-8753)	Proposed modification to condition													
B42	<p>NOISE</p> <p>Hours of Work</p> <p>B42. The Applicant must comply with the hours detailed in Table 1, unless otherwise agreed in writing by the Planning Secretary.</p> <p><i>Table 1 Hours of Work</i></p> <table border="1" data-bbox="292 517 890 622"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Stage 1 and Stage 2 construction</td> <td>Monday – Friday</td> <td>7 am to 6 pm</td> </tr> <tr> <td>Saturday</td> <td>8 am to 1 pm</td> </tr> <tr> <td rowspan="2">Stage 1 and Stage 2 operations</td> <td>Monday – Saturday</td> <td>7 am to 10 pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td>8 am to 6 pm</td> </tr> </tbody> </table> <p><i>Note: During the evening period operations are limited to screening and stockpiling or the loading and dispatch of trucks. No crushers can be used during the evening period</i></p>	Activity	Day	Time	Stage 1 and Stage 2 construction	Monday – Friday	7 am to 6 pm	Saturday	8 am to 1 pm	Stage 1 and Stage 2 operations	Monday – Saturday	7 am to 10 pm	Sunday and Public Holidays	8 am to 6 pm	<p><u>Modify B42 to the following:</u></p> <ul style="list-style-type: none"> — extending Stage 2 operation hours to commence operations at the site at 6:00 am. — crushing and processing in the evening period between 6:00 pm and 10.00 pm; Monday – Saturday. This would result in crushing and processing between 6:00 am and 10:00 pm, permitted during northerly and easterly winds only. — loading, unloading and dispatch of trucks in the night-time period between 10:00 pm and 6:00 am; Monday – Sunday as required. This would result in loading, unloading and dispatch of trucks 24 hours per day, seven days per weeks, to respond to market demand.
Activity	Day	Time													
Stage 1 and Stage 2 construction	Monday – Friday	7 am to 6 pm													
	Saturday	8 am to 1 pm													
Stage 1 and Stage 2 operations	Monday – Saturday	7 am to 10 pm													
	Sunday and Public Holidays	8 am to 6 pm													
B45	<p>NOISE</p> <p>Noise Wall</p> <p>B45. Prior to the commencement of Stage 1 operations, the Applicant must construct a concrete block noise wall on the eastern and southern perimeters of the ‘raw material stockpiles and processing area’, as shown in Figure 1 at Appendix 1 of this consent. The noise wall must be maintained during the life of the development.</p>	<p><u>Delete condition B45.</u></p> <p>NOISE</p> <p>Noise Wall</p> <p>B45. Prior to the commencement of Stage 1 operations, the Applicant must construct a concrete block noise wall on the eastern and southern perimeters of the ‘raw material stockpiles and processing area’, as shown in Figure 1 at Appendix 1 of this consent. The noise wall must be maintained during the life of the development.</p>													
C8	<p>REVISION OF STRATEGIES, PLANS AND PROGRAMS</p> <p>C8. Within three months of:</p> <p>(a) the submission of an incident report under condition C10;</p> <p>(b) the submission of an Independent Environmental Audit under condition C16;</p> <p>(c) the approval of any modification of the conditions of this consent; or</p> <p>(d) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed, and the Planning Secretary must be notified in writing that a review is being carried out.</p>	<p>No modification to condition is proposed. However, provided the proposed modifications are approved by the Department of Planning, Housing and Infrastructure (DPHI), strategies, plans and programs would require review in accordance with (c) the approval of any modification of the conditions of this consent.</p>													

3.4 Category of modification and consistency with approved project

Under the EP&A Act, a consent authority may modify a SSD consent, provided the development to which the consent relates, as modified, is substantially the same as the development for which the consent was originally granted.

The proposed modification to the SSD consent for operations at Concrush's Teralba site would be considered 'other modifications involving greater than minimal environmental impact' and would require consideration under Section 4.55(2) of the EP&A Act.

The proposed modification is considered to be substantially the same development as the approved project under SSD-8753. The approved project is described as

"The staged expansion and increase in the processing capacity of an existing resource recovery facility to 250,000 tonnes per year of general solid waste (non-putrescible) with a maximum storage capacity of 150,000 tonnes at any one time."

The proposed modification would not modify the nature of general solid waste (non-putrescible) waste received and stored at the site, the total amount of waste (up to 250,000 tpa) processed yearly, the total amount of waste (up to 150,000 tpa) stored yearly at the site, or the nature of general processing activities at the site. Therefore, the proposed modification is considered substantially the same development as the approved project.

Figure 3.1
Proposed Modification:
Stage 2 Conceptual Layout



Legend

- Site Boundary
- Existing Site Features
- Proposed Modifications
- Proposed Security Lighting
- Water Tanks
- Provisional Water Tanks
- Sealed Road (Two coat seal)
- Internal Roads/Hardstand Area un-sealed
- General Vehicle Movement
- Pedestrian Movement
- Watercourse
- Railway
- Road



Coordinate system: GDA2020 MGA Zone 56
 Scale ratio correct when printed at A3
 1:1,300 Date: 30/01/2024

Data sources: - DNRME, TMR, Translink, Geoscience Australia
 © WSP Australia Pty Ltd ("WSP") Copyright in the drawings, information and data recorded ("the information") is the property of WSP. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by WSP. WSP makes no representation, undertakes no duty and accepts no responsibility for any third party who may use or rely upon this document or the information. NSIC Certified Quality System to ISO 9001. © APPROVED FOR AND ON BEHALF OF WSP Australia Pty Ltd.

4 Statutory context

4.1 Commonwealth legislation

4.1.1 *Environment Protection and Biodiversity Conservation Act 1999*

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), proposed actions with the potential to significantly impact matters protected by the EPBC Act must be referred to the Department of Climate Change, Energy, the Environment and Water to determine whether they are controlled actions and require approval from the Australian Government Minister for the Environment.

A preliminary assessment of the modifications indicates no Commonwealth land would be affected. Based on the project site, the design of the modifications and understanding of site conditions, it is anticipated that the proposed modification would not result in significant impacts on Commonwealth listed threatened species and ecological communities or other Matters of National Environmental Significance and an EPBC Act referral for the modification would not be required.

4.1.2 *Native Title Act 1993*

The Native Title Act is administered by the National Native Title Tribunal. The proposed modification is wholly located within freehold land and there are no areas of Crown Land or Commonwealth land located within the project site.

4.1.3 *Regional Forest Agreements Act 2002*

The project site is within the area covered by the North East NSW Regional Forest Agreement, however it does not form part of the State Forest or reserve system. As such, the provisions of the *Regional Forest Agreements Act 2002* do not apply to the proposed modification.

4.2 State legislation

4.2.1 *Environmental Planning and Assessment Act 1979*

Under the EP&A Act, a consent authority may modify a SSD consent, provided the development to which the consent relates, as modified, is substantially the same as the development for which the consent was originally granted. Modifications may be necessary to change the design of the approved project or the conditions of the development consent.

The proposed modification at Concrush's Teralba site would be considered 'other modifications' and would require consent under Section 4.55(2) of the EP&A Act.

This Modification Report has been prepared as Concrush are seeking consent for the proposed modifications. The Modification Report has been prepared in accordance with Clause 99 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and the *State significant development guidelines – preparing a modification report: Appendix E to the state significant development guidelines* (DPIE, 2022).

4.2.2 *State Environmental Planning Policy (Planning Systems) 2021*

Clause 23 (3) of Schedule 1 of the State Environmental Planning Policy (Planning Systems) 2021 identifies SSD as:

“development for the purpose of resource recovery or recycling facilities that handle more than 100,000 tonnes per year of waste”.

As such, the approved was assessed as SSD and received approval on 27 March 2020. Modification to the approved SSD consent would be in accordance with Section 4.55(2) of the EP&A Act.

4.2.3 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) and the Protection of the Environment Operations (General) Regulation 2022 set out the general obligations for environmental protection for development in NSW. The approved project is classified as a premises-based scheduled activity under Schedule 1, 'Resource recovery' of the POEO Act.

The proposed modification seeks to modify the SSD approval to allow for processing to increase from 5,000 tpa to 10,000 tpa, and seeks to modify the 200 tonnes storage limit to 2,000 of green waste at the site, at any one time. The proposed modification would not involve an increase to the approved upper limit for the approved 'recovery of general waste' (250,000 tpa).

4.2.4 Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) aims to encourage the most efficient use of resources to reduce environmental harm in accordance with the principles of ecologically sustainable development. The proposed modifications are consistent with the aims of the Act and will provide more efficient recycling of materials without increasing potential impact of the approved facility.

4.2.5 Lake Macquarie Local Environmental Plan 2014

The site is zoned IN1 – General Industrial under the Lake Macquarie Local Environmental Plan 2014.

The EP&A Act provides that Local Environmental Plans do not apply to SSD projects or modifications.

4.3 Other NSW legislation and EPI

The applicability of relevant legislation and environmental planning instruments covering the potential impacts of the proposed modification and the permissibility of the actions included for the proposed modification are summarised in Table 4.1.

Table 4.1 Other relevant Acts and SEPPs

Legislation and application	Comments	Applicable	Permissible
<i>Biodiversity Conservation Act 2016</i>	The proposed modifications would not increase the minor vegetation clearing assessed for the EIS.	✓	n/a
<i>Coal Mine Subsidence Compensation Act 2017</i>	The proposed modifications are within the EIS footprint, and consultation with Subsidence Advisory NSW was undertaken for the EIS. No further consultation would be required.	✓	n/a
<i>Coastal Management Act 2016</i>	The proposed modifications would not have an impact on the coastal environment of NSW. A Green Waste Catchment Water Quality Assessment has been prepared by Engeny (2023) to assess the potential impacts of the proposed increase in storage and processing at the project site. The memorandum is provided in Appendix E.	✓	n/a

Legislation and application	Comments	Applicable	Permissible
<i>Roads Act 1993</i>	The proposed modifications would not increase the potential impacts assessed for the EIS. Additional vehicle movements are not proposed. The modification would allow for the same vehicle movements over a longer period of time to provide improved flexibility and site operations.	✓	✓
SEPP (Resilience and Hazards) 2021	Coastal processes were assessed in the EIS, and the proposed modifications would not increase the potential impacts previously assessed. A contamination assessment was undertaken during the EIS and identified that the proposed industrial use is appropriate for the site. The proposed modifications are consistent with the approved project and hence would be considered not hazardous or offensive as per the EIS.	✓	✓
SEPP (Biodiversity and Conservation) 2021	There is no core koala habitat within the project site therefore the further provisions of the SEPP do not apply.	✓	n/a

4.4 Identification of statutory requirements

Table 4.2 identifies the statutory requirements for the proposed modification.

Table 4.2 Summary of statutory requirements for the proposed modification

Category	Action required
Power to grant approval	The NSW Minister for Planning and Public Spaces or their delegate is the consent authority for the modifications and a Modification Report is required to be lodged to the NSW DPHI.
Permissibility	The proposed modifications are permissible with consent and are consistent with the approved SSD for the site.
Other approvals	Section 4.41 of the EP&A Act states the following approvals, permits etc. are not required for an approved SSD, including: <ul style="list-style-type: none"> — <i>Fisheries Management Act 1994</i>: there would be no increase in potential impacts on key fish habitat. A biodiversity assessment was prepared for the EIS. — <i>Heritage Act 1977</i>: there would be no increase in potential impacts on heritage. The EIS found that no listed heritage items would be impacted by the approved project. — <i>National Parks and Wildlife Act 1979</i>: there would be no increase in potential impacts on Aboriginal heritage. The EIS found that there is a low likelihood of impact to Aboriginal objects onsite. — <i>Rural Fires Act 1997</i>: there would be no increase in potential impacts on bushfire risk. — <i>Water Management Act 2000</i>: a Green Waste Catchment Water Quality Assessment has been prepared by Engeny (2023) and is included in this Modification Report as Appendix E.

Category	Action required
	<p>Section 4.42 of the EP&A Act lists legislation that must be consistently applied to SSD projects (Appendix C). For the approved project, existing permits were issued for the approved SSD:</p> <ul style="list-style-type: none"> — EPL 13351 under the POEO Act.
Pre-condition to exercising the power to grant approval	<p>The Modification Report has been prepared to address the Section 4.55(2) of the EP&A Act and content requirements set out in <i>State significant development guidelines – preparing a modification report (Appendix E to the state significant development guidelines)</i> (DPE, 2022) in accordance with the EP&A Regulation.</p> <p>The Modification Report would be publicly exhibited. After the exhibition period closes, DPFI may ask the proponent to respond to issues raised in the submissions and prepare a Submissions Report.</p>

4.5 Statutory compliance

The proposed modifications statutory compliance is in Appendix C of this Modification Report. Appendix C identifies all the relevant statutory requirements for the proposed modification and indicates where they have been addressed in the Modification Report.

5 Assessment of impacts

5.1 Noise and vibration

A noise impact assessment (NIA) has been prepared by RCA Australia (2023) to support this modification report, particularly to assess and provide recommendations on the proposed modification's changes to Concrush's Teralba facility's operational hours, and the removal of the requirement for a noise wall at the project site. The full NIA (RCA 2023) is attached as Appendix D of this report.

5.1.1 Existing environment

RCA prepared a NIA (2018) as part of the RtS to support the EIS. The relevant operational noise assessment inputs from the previous reporting by RCA, and ongoing monitoring by RCA, has been used to inform the NIA prepared for the proposed modification (RCA, 2023).

The project is located on the western bank of Cockle Creek, southeast of the Central Coast/Newcastle train line. The nearest residential areas are:

- Boolaroo (Oak Tree Retirement Village, Bunderra Estate) – located about 230 metres east of the project site
- Argenton – located approximately 1.1 kilometres north-east of the project site, and
- Teralba – located approximately 1.3 kilometres south-west of the project site.

There are two residences located over 300 metres to the north of the project site.

Receivers have been grouped into five noise catchment areas (NCAs) according to receiver types and background noise monitoring undertaken for the EIS. The NCAs and their classified receivers are outlined in Table 5.1. It is noted that NCA 3 and NCA 4 were classified based on future proposed development (active recreation and residential respectively).

Table 5.1 Identified sensitive receiver types (from Table 2 of RCA, 2023)

Receiver	Receiver type
NCA 1	Residential – Suburban
NCA 2	Residential – Urban
NCA 3	Active recreation
NCA 4	Residential – Urban
NCA 5	Industrial Receiver

5.1.1.1 Operational noise criteria

The NIA completed for the EIS set project specific noise targets according to the Noise Policy for Industry (NPI) (EPA, 2017). However, it was identified that the targets set were not achievable even after implementing all feasible and reasonable noise mitigation measures. The NIA (RCA, 2018 and included in RCA, 2023) identified the achievable site noise levels for each NCA, as outlined in Table 5.2. These levels were later adopted in Concrush's Operational Noise Management Plan (ONMP) (July, 2020) which was endorsed by the [then] NSW Department of Planning.

Table 5.2 Operational noise criteria (from Table 4 of RCA, 2023)

Receiver	Project-specific criteria			
	Day L _{Aeq,15 min} dBA	Evening L _{Aeq,15 min} dBA	Night L _{Aeq,15 min} dBA	Night L _{Amax,15 min} dBA
NCA 1	51	43	36	52
NCA 2	56	47	37	52
NCA 3	53	53	53	–
NCA 4	54	48	42	52
NCA 5	68	68	68	–

5.1.1.2 Night time road noise impacts

The EIS initially assessed potential road noise impacts due to proposed additional heavy vehicle movements along Racecourse Road during the night as a result of trucks moving in and out of the project site during the night time, associated with loading and unloading activities. Following the EIS, Concrush rescinded the request to operate at night time, however, the road noise assessment prepared for the EIS remains relevant for the proposed modification.

5.1.1.3 Review of historical compliance data

Concrush have not received any noise complaints from the community since the expansion project became operational in 2020.

RCA has carried out compliance noise monitoring on a quarterly basis since Quarter 3 2020. A summary table of compliance results over the three-year period is attached as Appendix A of the NIA (RCA, 2023) depicting a single minor exceedance (1 dB) reported over the course of 85 individual day time compliance measurements. This minor exceedance in May 2023 was due to the green waste shredder (provided by a contractor to the site) which has since been taken off site. Generally, significantly quieter plant is used onsite, compared to the shredder that caused the minor offsite noise exceedance in May 2023.

5.1.1.4 Evening noise survey results

Evening noise monitoring has not routinely been carried out, however, evening noise monitoring was carried out by RCA on 30 October 2023 which captured heavy vehicles arriving and unloading at the site. RCA had staff located at NCA 1 and NCA 3, as well as Concrush's onsite noise monitor recording noise concurrently, to allow for a correlation between noise levels at the three locations to be estimated.

5.1.1.5 Updated impact assessment

Noise measurements of current crushing and screening plant were recorded at the site by RCA on 24 May 2023. Noise measurements captured the following crushing plant working together in the north-western portion of the site:

- jaw crusher
- cone crusher
- two screens
- two excavators.

A water cart and front-end loader were also observed to be moving around the crushing area.

The noise model prepared for the EIS was then updated to reflect Concrush's proposed day, evening and night time activities and to account for the crushing plant that is currently operating on site. Additionally, a new mobile crusher and feeding excavator (which were not operating on 24 May 2023) have been modelled within the southern raw material stockpiles and processing area. The sound power of the mobile crusher has been taken to be 111 dBA (provided by manufacturer).

Noise modelling was carried out using CadnaA software. The noise model does not include the 1.8 metre high noise wall located along the eastern boundary, however includes a three metre tall bund to represent mounds of mulch that are typically located in the processing area at the project site. Detailed operational noise modelling scenarios are outlined in Table 8 of the NIA (RCA, 2023).

5.1.2 Potential impacts

5.1.2.1 Construction

The proposed modification would be carried out within the assessed project site footprint and in accordance with the construction method as presented in the EIS and RtS. As such, the proposed modification is not expected to result in additional noise and vibration impacts during construction.

5.1.2.2 Operation

Night time unloading

Night time unloading activities were modelled and found to comply with noise targets at all receivers. This is consistent with RCA's attended monitoring observations carried out on 30 October 2023. The assessment supports the proposed modification for Concrush to carry out unloading activities 24 hours a day, as modelling indicates that night time unloading would not be expected to cause noise impacts at sensitive receivers.

Night time loading activities

Modelling of the loading activities (in comparison to the unloading activities) assumes that a loader is now operating for five minutes out of the 15 minute assessment period for the noise impact assessment. Based on this, operating the loader for at least five minutes generates predicted noise exceedances at NCA 1 and NCA 2 for the majority of significant wind directions (particularly northerly, south-westerly, westerly or north-westerly winds). It is noted that the assessment assumes use of a large diesel loader, and future equipment to be used at the project site would likely be quieter.

As such, noise modelling indicates that under the majority of prevailing wind conditions, loading activities would be expected to result in noise impacts at nearby sensitive receivers in NCA 1 and NCA 2 during the night time period.

While the NIA (2023) predicts that loading activities may result in noise impacts at sensitive receivers under the majority of prevailing wind conditions, the assessment notes that Concrush are committed to a process of decarbonisation and continue to look for opportunities to replace old plant with newer, cleaner plant (such as the new electric mobile crusher used at the site). The assessment notes also that newer technology is also quieter, and so operational noise levels are expected to trend downwards as older plant are replaced.

Evening crushing and processing ('screening')

The assessment of noise impacts for crushing and processing in the evening period considered activities being carried out in both the southern and northern "raw material stockpile, processing areas and processed material stockpile" areas. This included modelling a single front end loader operating near the primary crushing area for the full 15 minutes as well as two heavy vehicle arrivals to either load or unload (the loading scenario is captured with the front end loader operating the full period).

The assessment found that crushing could only occur under northerly or easterly wind conditions without resulting in expected noise exceedances to nearby sensitive receivers. It is noted that loading and unloading activities during the evening period were approved as part of the development consent for the approved project.

Day time full operations without noise walls

Full operations at the project site during the day time period ('standard hours') including green waste shredding, were assessed and the modelling excluded consideration of the southern or eastern noise walls to assess whether the noise walls are required. However, modelling does model the shredder behind a three metre tall bund to represent the piles of mulch that are located in the south-eastern portion of the site.

It was found that noise barriers along the eastern and southern boundary would not be required to minimise noise impacts to sensitive receivers during full operations in the day time period. These results are consistent with the results of routine compliance noise monitoring undertaken over the last three years. This supports Concrush's request to remove consent Condition B45.

Summary

Based on the findings of the updated NIA (RCA, 2023):

- Condition B45, detailing the requirement for noise walls along the eastern and southern boundaries, is not required to achieve compliance with the adopted daytime criteria and would not serve to mitigate proposed evening or night time operations. Condition B45 can therefore be removed from consent conditions.
- Noise modelling, supported by attended noise monitoring carried out on 30 October 2023, indicate that unloading activities can occur 24 hours a day without being expected to result in noise impacts to nearby sensitive receivers.
- Noise modelling indicates that loading activities are expected to cause noise impacts during the night time period under the majority of prevailing wind conditions. However, as Concrush decarbonise their operations and look to replace older, diesel plant with newer, cleaner, quieter plant (such as electric plant), operational noise levels are expected to trend downwards as older plant are replaced.
- Crushing and processing ('screening') activities can occur at the project site during the evening period under northerly and easterly wind conditions without being expected to result in noise impacts to nearby sensitive receivers. It is again noted that the assessment has been based on the existing plant at the project site, and as diesel plant is replaced with quieter plant, crushing and processing noise levels would be expected to decrease.

5.1.3 Mitigation and management

The following management and mitigation measures are recommended to be implemented for the proposed modification and include:

- the current Operational Noise Management Plan for operations at the project site will be updated. Updates to the plan will also include a review of the quarterly noise monitoring procedures
- adoption of a new operating procedure, which utilises online noise monitoring, would be installed for display within the weighbridge office onsite, to log any atypical noise heard from within or outside the site with the view of changing noise generated (if generated onsite). That is, using noise measurement to change behaviour onsite.

5.2 Air quality

The proposed modification would include an increase to the proposed storage and processing capacity for garden and wood waste at the project site at any one time, however, does not involve an increase in the operational footprint or increase to the total annual processing and storage capacity of materials at the site. As such, additional impacts to air quality and odour at and surrounding the site are not expected and an updated air quality impact assessment is not considered necessary for the proposed modification.

5.2.1 *Existing environment*

The existing air quality and odour conditions at the site are as described in the EIS for the approved project, and the project has been constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

5.2.2 *Potential impacts*

5.2.2.1 Construction

The EIS construction air quality impact assessment analysed dust emissions and found modelling results show the 24-hour impact assessment criteria is predicted to be met for the nearest receivers. Odour was not analysed within the construction impact assessment.

The proposed modification would be carried out within the assessed project site footprint and in accordance with the construction method as presented in the EIS and RtS. As such, the proposed modification is not expected to result in additional potential air quality impacts during construction.

5.2.2.2 Operation

The proposed modification includes extending regular operational hours to commence at 6:00 am, with crushing and processing into the evening and night-time periods; operation of the site 24 hours a day seven days per week for the loading/unloading of trucks, and removing the capacity limits for processing and storage of green waste at the site.

The proposed modification would include an increase to the proposed storage and processing capacity for garden and wood waste at the project site at any one time, however, does not involve an increase in the operational footprint or increase to the total annual processing and storage capacity of materials at the site.

The proposed modification to operational hours, crushing and processing hours, and extended potential hours for traffic movements to and from the project site has the potential to result in minor impacts to air quality through dust emissions. However, the proposed modification would be consistent with the activities assessed as part of the approved project, over extended operational hours. Potential impacts would be considered adequately managed through the implementation of existing management measures at the project site.

The proposed modification also includes modifying the layout of the internal access roads, and relocation of the wheel wash within the project site. The relocated internal access roads would be sealed with a two coat seal between the wheel wash and the site exit, and the proposed wheel wash would be relocated to the northern boundary of the project site. This modification has been proposed to respond to the final location and layout of the site entry/exit point, as approved by LMCC and to improve operations through a more efficient site layout. The proposed position of the wheel wash and sealed internal access roads from the wheel wash to exit have been designed to minimise potential dust emissions that may leave the site on truck tyres.

As such, the proposed modification is not expected to result in dust emissions additional to those assessed in the EIS.

5.2.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to air quality at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.3 Traffic

The proposed modification would include an increase to the proposed storage and processing capacity for garden and wood waste at the project site at any one time and modifying the operational hours at the facility. However, the proposed modification does not involve an increase to the total annual processing and storage capacity of materials at the site and would not result in an increase in traffic movements to and from the project site. As such, additional impacts to traffic and transport conditions at and surrounding the site are not expected and an updated traffic impact assessment is not considered necessary for the proposed modification.

5.3.1 Existing environment

The existing traffic movements to and from the site, and the existing traffic management within the project site, are as described in the EIS for the approved project, and the project has been constructed generally in accordance with the consent.

The proposed modification would involve removing the light vehicle exit point proposed as part of Stage 1 construction, modification of internal access road arrangements, modification of operational hours, and allowance for loading, unloading and dispatch of trucks to be 24 hours per day seven days per week, subject to market demand.

5.3.2 Potential impacts

5.3.2.1 Construction

The proposed modification would be carried out within the assessed project site footprint and in accordance with the construction method as presented in the EIS and RtS. As such, the proposed modification is not expected to result in additional potential traffic and transport impacts during construction.

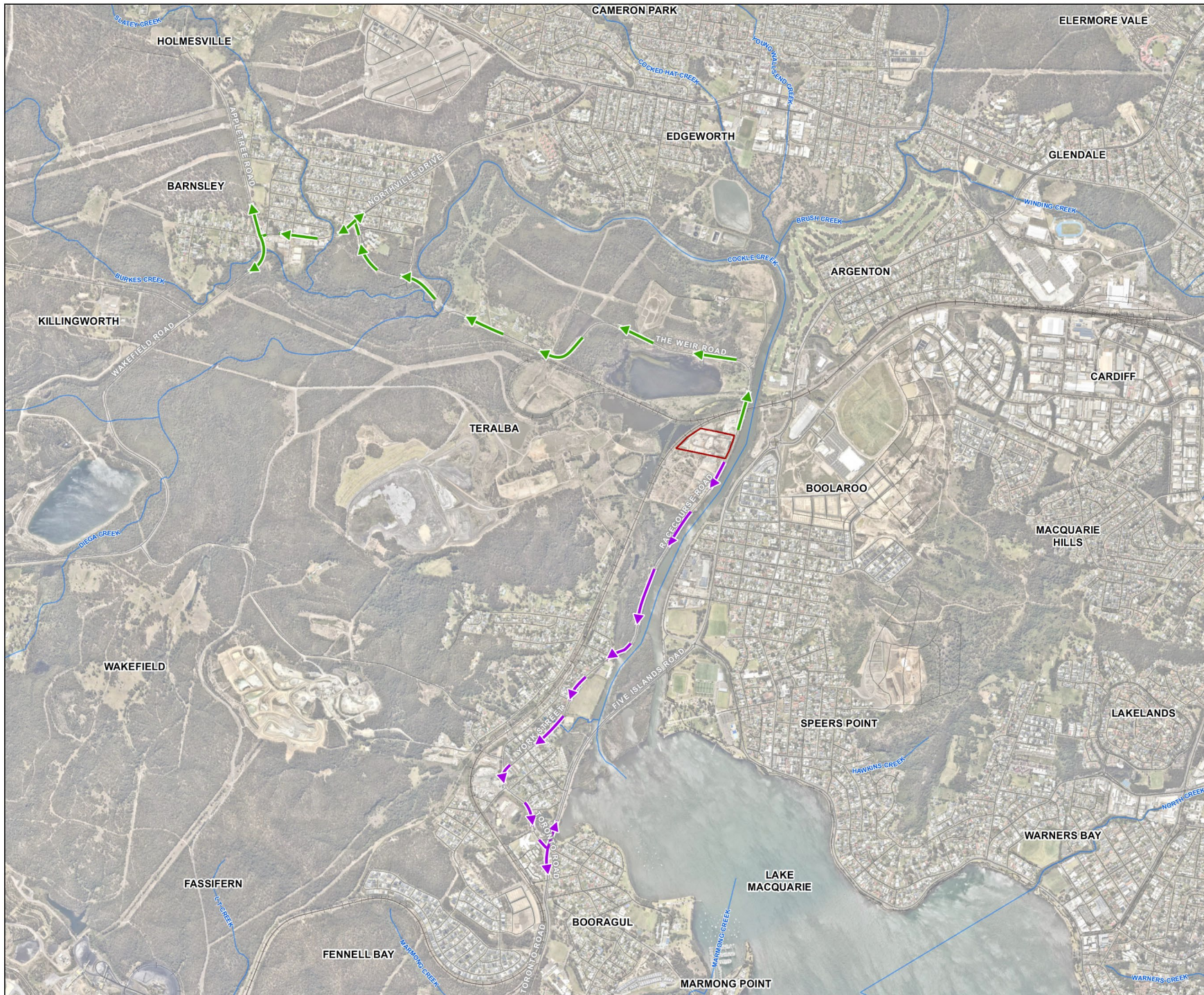
5.3.2.2 Operation

The proposed modification would involve removing the light vehicle exit point proposed as part of Stage 1 construction, modification of internal access road arrangements, and modifying the operational hours for deliveries and loading of trucks to be 24 hours per day seven days per week, during project campaigns. The modification is proposed to allow for flexibility of operations at the project site, and to respond to market demand for Concrush's recycled products.

The proposed modification would not be expected to significantly impact traffic conditions surrounding the project site, as the proposed modification would not result in an increase to traffic movements to and from the site. The proposed modification would use the northern and southern transport routes identified within the EIS and RtS (refer to Figure 5.1). The traffic generation assessed for the approved project includes ten car movements per hour (five in and five out) and 26 truck movements per hour (13 in and 13 out) into and out of the project site per hour. The proposed modification would not seek to increase the traffic movements into and out of the project site, rather the modification to operational hours (proposed 24 hours per day, seven days per week as required) would extend the potential hours that the nominated traffic may move into and out of the project site.

The EIS traffic impact assessment identified that the roads surrounding the project site would continue to operate well within their technical and functional lane capacity levels as described by Austroads and NSW Roads and Maritime Services (now Transport for NSW) guidelines. Similarly, there would be little change to intersection performance. Overall, the traffic assessment determined that the road network surrounding the approved project would continue to operate at acceptable levels with the approved project.

Figure 5.1
Transport Route for
Vehicle Access



Legend

- Site Boundary
- Key Northern Transport Route
- Key Southern Transport Route
- Watercourse
- Railway
- Road



Coordinate system: GDA2020 MGA Zone 56
 Scale ratio correct when printed at A3
 1:25,000 Date: 30/01/2024

Data sources: - DNRME, TMR, Translink, Geoscience Australia

© WSP Australia Pty Ltd ("WSP") Copyright in the drawings, information and data recorded ("the information") is the property of WSP. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that which it was supplied by WSP. WSP makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information. NSCA Certified Quality System to ISO 9001. © APPROVED FOR AND ON BEHALF OF WSP Australia Pty Ltd.

Proposed modifications to the internal access roads and traffic management within the project site have been proposed to respond to the final intersection design and construction, as approved by LMCC. The proposed modifications to the internal traffic elements would not result in off-site impacts to traffic and transport. Modification to internal access roads and traffic management within the project site would be managed through implementation of existing management measures that relate to the project site. Relevant sections of the operational environmental management plan and traffic management plan that relate to the facility would be updated following approval of the proposed modification (once approved).

5.3.3 *Mitigation and management*

The following management measures will be implemented as part of the proposed modification:

- The current Traffic Management Plan (TMP) for operations at the project site will be updated to accommodate proposed modifications at the project site, including modified internal access road layout, the proposed location of the wheel wash, removal of the light vehicle exit point “Exit-Light Vehicles”, and the proposed increase and reconfiguration of light vehicle parking.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.4 Soil and water management

The proposed modification does not involve an increase in the operational footprint to the approved project at the site. However, the proposed modification would include increasing storage and processing capacity of garden and wood waste at the site. Therefore, the proposed modification has the potential to impact water quality at and surrounding the project site.

A Green Waste Catchment Water Quality Assessment has been prepared by Engeny (2023) to assess the potential impacts of the proposed increase in storage and processing at the project site. The report is provided in Appendix E.

5.4.1 *Existing environment*

5.4.1.1 Soils

The existing environment relating to soils and geology at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the approved project site footprint and generally as presented in the EIS and RtS.

5.4.1.2 Surface water management and hydrology

The existing environment relating to the flooding and hydrology conditions at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The project site is located in the Cockle Creek Estuary catchment that forms part of the broader Lake Macquarie catchment and majority of the site is classified as flood prone (having a high flood risk) based on LMCC flood risk mapping (NSW Department of Planning and Environment, 2024). The project site is situated in the Lower Cockle Creek Floodplain with lower portions of the project site within the 1 per cent Average Exceedance Probability (AEP) flood extent as determined by the Winding Creek and Lower Cockle Creek Floodplain Risk Management Study and Plan (BMT WBM, 2016).

The proposed modification would be carried out within the approved project site footprint and generally as presented in the EIS and RtS.

5.4.1.3 Water quality

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the approved project site footprint as presented in the EIS and RtS.

Prior to expansion of the site in accordance with SSD-8753, the green waste storage and processing area was not isolated from the broader project site catchment. Runoff from the green waste storage and handling area historically drained to the Centre Dam (a small drainage pit) which captured and conveyed runoff from the eastern end of the project site via a sub-surface stormwater pipe to a vegetated channel draining to the west along the northern boundary of the project site.

The surface water management system at the project site comprises a leachate dam, sediment dams, a constructed wetland, pumps and water tanks, and internal sprinklers. Leachate and runoff captured in the leachate dam is transferred via a pump to the wetland which was constructed based on a preliminary design prepared by Hunter H2O. Overflows from the leachate dam that occur as a consequence of storm events that exceed the leachate dam capacity bypass the wetland and drain to sediment dam 2 in the project site's south west (refer to Figure 3.1) which has a larger constructed capacity than the required design capacity. Further, as part of the approved project, Concrush has installed four tanks to store the first flush of runoff from the green waste catchment (transferred from the leachate dam) following dry periods when the runoff is likely to have higher nutrient concentrations. Water transferred to the first flush tanks is used as a priority for maintaining mulch moisture levels during the pasteurisation process.

Prior to expansion of the facility for the approved project, Concrush completed seven rounds of water quality monitoring for nutrients (amongst a range of other parameters) within the centre dam (refer to Figure 3.1). Water quality within the centre dam for the period of monitoring (November 2017 to March 2019) is considered to be most representative of green waste leachate and catchment runoff.

The results historically recorded from the centre dam do not clearly indicate whether green waste catchment runoff nutrient concentrations vary with green waste inventory. It is likely that a range of variables contribute to nutrient concentration levels in green waste catchment leachate and runoff including climatic conditions (i.e. rainfall and evaporation) and green waste properties (e.g. proportions of woody waste to garden waste). While it would seem likely that a higher green waste inventory would result in higher nutrient concentrations it is considered that other variables (particularly rainfall and evaporation) may be a more dominant influence on nutrient concentrations than green waste inventory.

While climatic conditions with lower rainfall and higher evaporation may result in higher nutrient concentrations in leachate and runoff, the lower volume of leachate and runoff produced means that water containing high nutrient concentrations is less likely to be discharged to receiving waters surrounding the project site.

5.4.2 Potential impacts

5.4.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method, and within the project site footprint as presented in the EIS and RtS. Additional potential impacts to soils and geology, flooding and hydrology and water quality at the site during construction are not expected. It is also noted that prior to the project approval (SSD-8753), the Concrush development consent did not limit the maximum green waste inventory.

5.4.2.2 Operation

Soils

The southern section of the approved project site was determined to be underlain by Potential Acid Sulfate Soils (PASS). In accordance with the EIS and RtS, an Acid Sulfate Soil Management Plan has been prepared and implemented for construction and operation of the approved project, to manage potential environmental impacts associated with acid generation from any excavated PASS. The EIS identified that the approved project is not expected to have any impacts on soil salinity.

Erosion and sediment controls have been and will continue to be implemented to minimise the generation of sediment at the project site and to minimise the transport of sediment around and off-site.

One layer of concrete blocks (around one metre tall) from the concrete wall would be retained within the stockpiling and processing area (and would continue to be extended) for efficient stockpile management, to reduce dust emissions through transfer of products, and for water quality and sedimentation management at the project site by preventing stockpiles from entering the swale drains along the site boundary.

Other controls to minimise and manage erosion and sedimentation impacts at the site would be implemented during operations in accordance with the operational environmental management plan (OEMP).

Surface water management and hydrology

Flooding

In accordance with the EIS, most of the project site (based on LiDAR survey dated by September 2014) is above RL 1.50 metres Australian Height Datum (mAHD), which is nominated as the 1 per cent AEP flood level as quoted from the Lake Macquarie Council's Property Enquiry tool. As such, the project site is not subject to lake flooding.

The applicable 1 per cent AEP flood level, as quoted from the Lake Macquarie Council's Property Enquiry tool, for catchment flooding (Winding Creek and Lower Cockle Creek Flood Study, 2013) is RL 2.35 mAHD. Through levelling and placement of a 0.5 metre capping layer over the majority of the project site for the approved project, the 1 per cent AEP flood standard RL of 2.35 mAHD was expected to be met.

Groundwater

A leachate barrier system for the green waste storage and handling area and the lining of the leachate dam and constructed wetland was incorporated into the approved project design, in accordance with the Environmental Guidelines for Composting and Related Organics Processing Facilities (NSW Department of Conservation, 2004). The approved project design was assessed to have a very low risk of impacting groundwater water quality, and the proposed modification is not expected to result in additional potential impacts to groundwater quality at and surrounding the site.

Surface water management system

The upgraded green wastewater management system comprises an isolated green waste catchment, a leachate dam (on the eastern boundary) and a constructed wetland (in the project site's south east) (refer to Figure 3.1). The green waste catchment has been constructed to include a leachate barrier and is bunded and graded to ensure runoff reports to the leachate dam. For efficiency, the sediment dams at the project site have been constructed to allow for Stage 2 operations. This has resulted in readings that indicate that the surface water manage system can adequately manage the proposed modification to storage and processing.

Water quality

A Green Waste Catchment Water Quality Assessment has been prepared by Engeny (2023) to assess the potential impacts of the proposed increase in storage and processing at the project site. The report is provided in Appendix E.

Concrush notified commencement of Stage 1 operations in March 2023. The commencement of Stage 1 operations included the commissioning of the upgraded green waste catchment water management system including the leachate dam and the wetland. Total Nitrogen (TN) and Total Phosphorus (TP) concentrations recorded during routine monitoring of the leachate dam and wetland were recorded and have been used as a basis for the water quality assessment.

The nutrient removal for TN and Total Phosphorus TP (presented in Appendix E) records the water management system to have 52 per cent of TN removal efficiency and 67 per cent removal efficiency of TP. The leachate dam monitoring results shows that the influent water supplied to the wetland has lower TN and TP concentrations than the design influent concentrations, which are most likely due to dilution associated with water transfers from the sediment dams to the leachate (refer to Figure 3.1). Water transfers from the sediment dams have been carried out to manage site water inventories through evapotranspiration following wet climatic conditions.

The water quality results and the estimated TN and TP removal efficiencies, with the exception of one sampling event, in August 2023, indicate that the wetland was performing to design expectations and is likely to have additional capacity for nutrient removal given the lower influent concentrations. The August 2023 results indicate higher concentrations of TN and TP, and total suspended solids, in the constructed wetland effluent than the incoming untreated leachate/runoff from the leachate dam, likely due to vegetative matter that was recorded in the constructed wetland sample. As such, the August 2023 constructed wetland effluent TN and TP results were excluded from the average nutrient removal efficiency calculations.

It is understood that inflows to the wetland at the project site are currently being managed to minimise effluent outflows during the more recent dry conditions. September water quality results (presented in Appendix E) indicate that wetland TN and TP removal rates under this operating regime are still exceeding design performance estimates. Leachate dam nutrient concentrations may increase further with ongoing dry conditions and the absence of transfers from sediment dam 2, however, based on the monitoring results following commission of the wetland, it is considered likely that the Wetland would continue to meet or exceed TN and TP design removal efficiencies and that the wetland can accommodate an increase in feed water nutrient loads.

Based on the analysis of historical green waste catchment water quality (see Appendix E for detail), review of the performance of the upgraded green waste catchment water management system at the project site (i.e. the leachate dam and the wetland), and considering the additional water storage capacity at the project site, the following conclusions are drawn:

- Based on historical water quality sampling, the constructed wetland at the project site is performing to design expectations and is likely to have additional capacity for nutrient removal given the lower influent nutrient concentrations.
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase nutrient concentrations in green waste catchment leachate/runoff.
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase the risk of discharges to receiving waters from the project site provided the green waste catchment area remains unchanged (i.e. there is no increase in green waste processing and storage area) from the currently approved catchment area (as this would increase the likelihood of spills from the green waste catchment to sediment dam 2).
- An increase in the maximum allowable inventory of green waste that may be stored at any one time at the project site is not considered likely to increase the overall nutrient load generated, although an increase in the rate of processing of green waste is likely to generate additional nutrient load. However, given the performance of the constructed wetland, and given that it is meeting or exceeding design expectations, and considering the additional water storage capacity at the project site, it is considered highly unlikely that nutrient loads in any off-site discharges from the project site would increase, provided the green waste catchment area is not increased (as this would increase the likelihood of spills from the green waste catchment to sediment dam 2).
- Nutrient load generation rates at the project site are inherently constrained by the available space to store and process green waste, as well as the limited availability of the shredder which is hired by Concrush to periodically shred stockpiled green waste.
- Nutrient concentrations and loads in green waste catchment leachate and runoff are dependant on a range of factors including climatic conditions, stockpile areas exposed to rainfall and processing rate, however, determining the degree to which each factor influences the concentrations and loads would require longer term data obtained from a very detailed monitoring program. It is considered that the benefit of implementing such a monitoring program is limited and the current monitoring program is adequate to indicate green waste catchment water management system performance.

- The existing monitoring program would be relied upon to develop an understanding of the baseline range in nutrient concentrations and loads generated under the current operating regime which would enable identification of any changes in green waste catchment water management system should operating conditions change (e.g. future changes to maximum storage and processing limits at the project site).

As such, potential impacts to water quality at and leaving the project site are not expected to be impacted through the increased processing capacity of the site, provided the green waste processing and storage areas do not increase in size, and monitoring and mitigation measures are implemented.

Concrush would continue to install water tanks at the project site to capture rainwater for use as part of the project site's water management system, if required and identified through ongoing monitoring.

5.4.3 *Mitigation and management*

The following management measures will be implemented as part of the proposed modification:

- There will be no increase in the size of the green waste processing and storage area associated with the proposed modification. If the green waste processing and storage area (and therefore catchment area) is increased, further assessment will be required to determine potential impacts to water quality.
- Concrush will install additional water tanks at the project site, if required, to increase the capacity of the water management system by capturing rainwater for use at the Teralba facility.
- Concrush will continue to monitor the water quality and nutrient load of water captured within the project site and will take remedial actions to rectify water quality if water quality guidelines target values are exceeded.
- Concrush will update and implement the controls and management measures, monitoring and inspection requirements outlined within the Green Waste Leachate Management Plan for the site.

5.5 Biodiversity

The proposed modification does not involve an increase in the operational footprint, and as such, additional impacts to biodiversity at and surrounding the site are not expected. An updated Biodiversity Development Assessment Report (BDAR) would not be required for the proposed modification as the modification would not increase the project site footprint.

5.5.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

5.5.2 *Potential impacts*

The EIS determined the approved project would not result in substantial indirect impacts on the biodiversity values of surrounding lands such as connectivity, corridors, habitat fragmentation or light emissions. The proposed modification would be carried out within the assessed project site footprint and as such, potential impacts to biodiversity are expected to remain consistent with those assessed in the EIS.

5.5.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method and within the project site footprint as presented in the EIS and RtS. As such, the proposed modification is not expected to result in additional impacts on biodiversity values at or surrounding the project site during construction.

5.5.2.2 Operation

The proposed modification is not expected to result in significant changes to potential biodiversity impacts during operation as the proposed modification does not seek to expand the operational footprint (as presented in the EIS and RtS) at the project site.

Additional artificial lighting would be required during evening and night-time operations, proposed as part of the modification. Minor changes to noise generated at the project site may also occur, associated with the modified operational hours for deliveries (loading/unloading) of trucks. Changes to operational hours would not be expected to increase noise levels generated at the project site, rather they would alter the potential hours throughout the day and night where noise may be generated.

Night-time movement of vehicles may result in light and noise impacts to wildlife. However, this is not expected to be significant as vehicles movements would be intermittent and as needed to meet market demand. Night-time use of lighting may also impact wildlife; however the site is heavily disturbed and not like to be utilised by wildlife.

5.5.3 *Mitigation and management*

As the proposed modification is not expected to result in significant additional impacts to biodiversity values at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.6 Bushfire

The proposed modification does not involve an increase in the operational footprint or operational management practices for bushfire in comparison to the approved project at the site. As such, additional impacts to bushfire risk and management at the site are not expected.

5.6.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS, which is described as predominantly cleared of any significant vegetation (Umwelt, 2018). The Concrush site is not mapped as bushfire prone land (NSW Department of Planning and Environment, 2024).

5.6.2 *Potential impacts*

A bushfire threat assessment was completed for the EIS. The proposed modification would be carried out within the assessed project site footprint and as such, potential bushfire risk is expected to remain consistent with the EIS. The proposed modification is not expected to alter bushfire risk and management proposed at the site.

5.6.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method, and within the site footprint as presented in the EIS and RtS. Additional risks to bushfire at the site, associated with the proposed modification, are not expected.

5.6.2.2 Operation

The proposed modification is not expected to result in changes to bushfire risk and management during operation as the proposed modification does not seek to expand the operational footprint (as presented in the EIS and RtS), or modify operational management practices for bushfire at the site.

Concrush have an existing Pollution Incident Response Management Plan (PIRMP) which includes the relevant evacuation procedure for staff and the public in response to bushfire threat. Threat of the combustion of product on site is managed through appropriate storage of materials and implementation of separation distances between stockpiles. During hot conditions stockpiles are wetted down and all operators are trained in firefighting techniques.

5.6.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to bushfire risk at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.7 Aboriginal heritage

The proposed modification does not involve an increase in the operational footprint to the approved project at the site. As such, additional impacts to Aboriginal heritage at and surrounding the site are not expected. An Aboriginal Cultural Heritage Report is not considered necessary as the modification would not increase the project site footprint or modify site activities.

5.7.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS, which is described as an area subject to extensive previous disturbances (Umwelt, 2018).

A basic search of the Aboriginal Heritage Information Management System (AHIMS) was carried out in September 2023, and is attached as Appendix G. The search did not identify any known Aboriginal sites or places within Lot 2, DP220347, with a buffer of 200 metres.

5.7.2 *Potential impacts*

The EIS determined that the approved project would be undertaken within areas that have previously been disturbed and as such, there is a low likelihood that the works would result in harm to Aboriginal objects. In accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (the 'Due Diligence Code') (Commonwealth Department of Environment, Climate Change and Water, 2010) no further archaeological assessment was required.

The proposed modification would be carried out within the assessed project site footprint and as such, potential impacts to Aboriginal heritage values are expected to remain consistent with those assessed in the EIS.

As such, the proposed modification is not expected to result in additional impacts on Aboriginal heritage values.

5.7.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method, and within the site footprint as presented in the EIS and RtS. Additional potential impacts to Aboriginal heritage at the site are not expected.

5.7.2.2 Operation

The proposed modification is not expected to result in changes to potential Aboriginal heritage impacts during operation as the proposed modification does not seek to expand the operational footprint (as presented in the EIS and RtS) at the site. Additional potential impacts to Aboriginal heritage at the site are not expected.

5.7.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to Aboriginal heritage values at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.8 Non-Aboriginal heritage

The proposed modification does not involve an increase in the operational footprint, and as such, additional impacts to non-Aboriginal heritage at and surrounding the site are not expected. An updated Heritage Impact Statement is not considered necessary as the modification would not increase the project site footprint.

5.8.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The project site is not a listed heritage item, does not contain any listed heritage items, and is not located within any listed heritage conservation areas or precincts. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

5.8.2 *Potential impacts*

The EIS determined that the approved project is highly unlikely to result in any impacts to any potential historical (non-Aboriginal) archaeological resource. The proposed modification would be carried out within the assessed project site footprint and as such, potential impacts to non-Aboriginal heritage values are expected to remain consistent with those assessed in the EIS.

As such, the proposed modification is not expected to result in additional impacts on non-Aboriginal heritage values at or surrounding the project site.

5.8.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method, and within the project site footprint as presented in the EIS and RtS. Additional potential impacts to non-Aboriginal heritage at the site are not expected.

5.8.2.2 Operation

The proposed modification is not expected to result in changes to potential non-Aboriginal heritage impacts during operation as the proposed modification does not seek to expand the operational footprint (as presented in the EIS and RtS) at the site.

5.8.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to non-Aboriginal heritage values at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.9 Socio-economic

The proposed modification does not involve an increase in the operational footprint or change to the general processing activities at the project site. As such, additional social impacts at and surrounding the site are not expected. An updated Social Impact Assessment (SIA) would not be required for the proposed modification as the modification would not increase the project site footprint or significantly change processing activities at the site.

5.9.1 *Existing environment*

Key stakeholders relating to the project and the socio-economic conditions surrounding the project site are as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint and in accordance with the construction method as presented in the EIS and RtS.

5.9.2 *Potential impacts*

5.9.2.1 Construction

The proposed modification would be carried out generally in accordance with the assessed construction method and within the project site footprint as presented in the EIS and RtS.

As such, potential social impacts would generally be expected to remain consistent with those assessed in the EIS.

5.9.2.2 Operation

The proposed modification is not expected to result in significant changes to potential social impacts during operation as the proposed modification does not seek to expand the operational footprint (as presented in the EIS and RtS) at the site.

The proposed modification has the potential to result in minor additional social impacts to stakeholders and residents nearby the project site associated with the modified operational hours into the evening and night-time periods, and with the loading and unloading of trucks to 24 hours per day, seven days per week. However, potential additional social impacts associated with the proposed modification are expected to be minor and would be adequately managed through the implementation of mitigation and management measures, as described in the EIS and through implementing the engagement approach carried out in the RtS. This would include carrying out engagement with the nearby residents about the proposed modification to operations at the project site.

If complaints from residents and the general public are received during operation of the project, complaints would be documented and managed through the existing complaints handling process for operation at the project site, having been developed and implemented as part of the approved project.

The proposed modification is expected to achieve positive social and economic outcomes for the local economy as the extended operational hours would create an estimated extra three full-time equivalent (FTE) employment opportunities at Concrush's Teralba facility. The provision of increased processing during evening and night-time periods, and the increased processing and storage capacity of green waste at the site would also have positive social outcomes for the broader local economy by recycling, for re-use, products that would potentially be destined for landfill.

Potential impacts to air quality, visual conditions and noise and vibration associated with the proposed modification have been considered in their respective sections of this modification report.

5.9.3 *Mitigation and management*

In accordance with the EIS (Umwelt, 2018), the following management measures will be implemented as part of the approved project:

- Noise and air quality – impacts on way of life: there are a small number of nearby neighbours that Concrush should work with to monitor the impacts of noise on social amenity.
- Sense of community – it is recommended that Concrush continue to maximise local and regional spend through support for local groups and organisation.
- Traffic – impacts on social amenity and safety: Traffic was a key issue raised by the community through the SIA. It is recommended that where possible, Concrush implement some proactive tools to encourage their drivers and contractors to adhere to safe driving practices at all times. Mechanisms may include:
 - tool box talks with drivers to reinforce positive driver behaviours and messaging
 - installation of strategic signage at key locations on the site to remind drivers to ‘drive safely’ and ‘remember our local neighbours’
- A key aspect of any SIA is the development of a framework to monitor a project’s impact over time – often referred to as a social impact management plan. Concrush will collect social data to monitor commitments made in the social impact assessment namely:
 - key areas of predicted project impact, including perceived and experienced social impacts, through consultation with neighbouring and other nearby landowners, to determine if experienced impacts are in line with predicted impacts
 - evaluation of community contributions to ensure benefits to local stakeholders e.g. Teralba Public School, local community organisations.

It is recommended that, in accordance with the approach outlined in the RtS (Umwelt, 2019), nearby residents are consulted about the proposed modification in accordance with the following:

- successful contact made with residents
- residents called and offered a meeting to discuss the proposed changes relating to working hours and noise
- a follow-up email confirming the discussion points and contact details sent following the discussions
- residents provided opportunity to comment on the proposed modification in relation to the operating hours.

5.10 Visual

A visual impact assessment was included as part of the EIS for the approved project and is summarised in this section. Potential impacts associated with the proposed modification have also been considered in this section.

5.10.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

5.10.2 *Potential impacts*

The EIS determined the main change to the visual environment as a result of the approved project would be the minor increase in size of the project footprint, within the approved project site. The activities, plant and equipment, stockpiles and vehicles present at the site were considered to be consistent with the existing operations, and would generally remain the same, however would be present over a larger area.

The proposed modification would be carried out within the assessed project site footprint and generally, the potential impacts to the visual character of the area would be expected to remain consistent with those assessed in the EIS.

5.10.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method and within the project site footprint as presented in the EIS and RtS.

5.10.2.2 Operation

Additional artificial lighting would be required during evening and night-time operations, proposed as part of the modification. Potential impacts to the visual environment as a result of lighting during these periods may occur, however impacts are expected to be minor.

Potential impacts associated with lighting during evening and night-time periods as part of the proposed modification would be managed through the implementation of mitigation measures detailed in the EIS and additional mitigation measures.

5.10.3 *Mitigation and management*

In accordance with the EIS (Umwelt, 2018), the following management measures will be implemented as part of the approved project:

- a landscaped two metre high earth bund will be established along the eastern boundary (southern half) of the site to complement the existing landscaped earth bund present along the northern half of the eastern site boundary.

To manage potential visual impacts associated with the proposed modification, the following management measure will be implemented:

- outdoor lighting required during extended operational hours at the project site will be installed and/or operated in accordance with *Australian Standard (AS) 4282—1997: Control of the obtrusive effects of outdoor lighting* (Council of Standards Australia, 1997).

5.11 Contamination

The proposed modification does not involve an increase in the operational footprint or changed construction methodology to the approved project and as such, additional impacts to soils and contamination at and surrounding the site are not expected. An updated contamination assessment would not be required for the proposed modification.

5.11.1 *Existing environment*

The existing environment at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

5.11.2 *Potential impacts*

5.11.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method and within the project site footprint as presented in the EIS and RtS.

5.11.2.2 Operation

The proposed modification is not expected to result in changes to potential soils and contamination impacts during operation as the proposed modification does not seek to expand the operational footprint or nature of processing operations (as presented in the EIS and RtS) at the site.

5.11.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to soils and contamination conditions at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.12 Waste management

The proposed modification does not involve an increase in the operational footprint or changed construction methodology to the approved project and as such, additional impacts to waste streams and waste management at and surrounding the site are not expected.

5.12.1 *Existing environment*

The predicted waste streams and types generated at the site as part of the approved project is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint, and in accordance with the construction method as presented in the EIS and RtS.

5.12.2 *Potential impacts*

The EIS determined the main waste streams generated at the project site would be General Solid Waste (putrescible and non-putrescible) including limited construction waste, general waste and recyclable products.

5.12.2.1 Construction

The proposed modification would be carried out in accordance with the assessed construction method, and within the site footprint as presented in the EIS and RtS. Waste streams are expected to be limited to General Solid Waste (putrescible and non-putrescible) including limited construction waste and general waste from construction personnel. Additional potential impacts associated with waste streams and waste management at the site are not expected.

5.12.2.2 Operation

The proposed modification is not expected to result in changes to potential waste management impacts during operation as the proposed modification does not seek to expand the operational footprint or general nature of processing (as presented in the EIS and RtS) at the site.

Waste streams from staff onsite are expected to be limited to general solid waste (putrescibles) associated with food waste and waste from litter bins from employees, and general solid waste (non-putrescible) associated with recyclable products such as glass, paper, plastic and cardboard.

In terms of operating the facility, the proposed modification would seek to modify the processing and storage capacity of garden and wood waste at the site, at any one time. The proposed modification to capacities at the project site would result in the increased tonnage of garden and wood waste stored and processed at the project site, which would increase the quantities of garden and wood waste destined for re-use as a recycled product. The increased capacities of garden and wood waste would be stored, handled, processed and managed in accordance with the existing management of waste and recycled products at the project site.

The proposed modification would be carried out within the assessed project site footprint and generally in accordance with the construction method presented in the EIS and RtS. Additional potential impacts associated with waste streams and waste management at the site are not expected.

5.12.3 *Mitigation and management*

As the proposed modification is not expected to result in additional impacts to waste streams and waste management at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.13 Greenhouse gases

The proposed modification does not involve an increase in the operational footprint or change to construction methodology for the approved project. An updated greenhouse gas and energy assessment (GHGEA) would not be required for the proposed modification.

5.13.1 *Existing environment*

The method, data and assumptions for greenhouse gases estimated at the site is as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint and in accordance with the construction method as presented in the EIS and RtS.

5.13.2 *Potential impacts*

The EIS identified the potential impact of the approved project to be quantified as the increase in emissions over the existing operations.

5.13.2.1 Construction

The proposed modification would be carried out generally in accordance with the assessed construction method and within the project site footprint as presented in the EIS and RtS.

As such, potential construction greenhouse gas emissions would generally be expected to remain consistent with those assessed in the EIS.

5.13.2.2 Operation

The proposed modification would not result in an increase to traffic entering and exiting the project site, despite the extended operational hours to allow for deliveries (loading/unloading) of trucks. The proposed modification would not result in increases the traffic movements into and out of the project site, rather the modification to operational hours (with loading, unloading and dispatch of trucks proposed 24 hours per day, seven days per week as required) would extend the potential hours that the nominated traffic may move into and out of the project site. The modification to operational hours is proposed to allow for flexibility of operations at the project site, and to respond to market demand for Concrush's recycled products.

Potential impacts associated with the operation of plant and equipment for crushing activities into the evening and night-time periods would not be expected to significantly increase the assessed Scope 1, Scope 2 and Scope 3 emissions generated from the site, as assessed within the EIS.

It is noted that the proposed modification, to allow processing and stockpiling across the whole central portion of the site, aims to reduce the requirement for plant and equipment to travel more freely around the site to access stockpiles for processing, stockpiling and loading/unloading activities. This improved site operation and efficiency would have a positive impact to reduce emissions of plant and equipment during the site's operation.

It is also noted that, while not quantified within the EIS or this modification report, Concrush seeks to make a positive contribution towards the overall reduction of greenhouse gas emissions through the re-purpose and re-use of its recycled products. The recycled nature of Concrush products reduces the demand for timber/forest resources and aggregate/concrete materials that would otherwise be required to produce similar products.

5.13.3 *Mitigation and management*

In accordance with the EIS (Umwelt, 2018), management measures are not required to be implemented as part of the approved project.

To manage potential greenhouse gas emissions associated with the proposed modification, the following management measures will be implemented:

- minimise vehicles lining up at weighbridge, as far as practicable, to reduce idling times
- regularly check and maintain in a proper and efficient condition all plant and machinery
- switch off plant and machinery when not in use, so it is not left idling.

5.14 Hazard and risk

A preliminary risk screening was carried out for the EIS for the approved project to determine if a preliminary hazard assessment is required. The proposed modification does not involve an increase in the operational footprint or change to the materials to be stored and processed at the site. As such, increased hazard or risk associated with materials at the site are not expected, and an updated preliminary risk screening would not be required for the proposed modification.

5.14.1 *Existing environment*

Potential hazards and risks at the site are as described in the EIS for the approved project, and as constructed generally in accordance with the consent. The proposed modification would be carried out within the project site footprint, as presented in the EIS and RtS, and would not include additional types of materials to be stored and processed at the site.

5.14.2 *Potential impacts*

The EIS concluded that none of the hazardous materials to be stored at the project site are above relevant screening thresholds and therefore a preliminary hazard assessment was not required. Additionally, the number of transport movements for relevant classes of hazardous materials would not exceed relevant thresholds, as the proposed modification would not be expected to increase traffic movements to and from the project site, therefore a route evaluation study would not be required. The proposed modification would not involve the receipt or processing of hazardous materials.

The proposed modification to increase the storage and processing capacity of green waste at the project site has the potential to increase risk and hazards associated with stockpile management and combustion. As part of existing operations at the project site, Concrush implements practices and measures to adequately manage stockpiles and reduce potential combustion risk associated with storage of green waste product onsite (for example, aeration of green waste stockpiles). Concrush would continue to implement stockpile and waste product management practices for the increased product to be stored at the project site, to manage the risk of combustion and other hazards.

The proposed modification would be carried out within the project site footprint, as presented in the EIS and RtS, and would not include additional types of materials to be stored, processed or used at the site. As such, the proposed modification is not expected to increase hazard or risk associated with materials stored, processed and used at the site.

5.14.3 *Mitigation and management*

As the proposed modification is not expected to increase the potential hazard or risk at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the approved and modified project.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

5.15 Cumulative

Proposed and/or recently approved developments within the Teralba local area were taken into consideration in determining the potential cumulative environmental impacts of the approved project. Further assessment of proposed or approved developments (occurring since the approved project was assessed) surrounding the project site have been considered in this section.

5.15.1 Existing environment

Proposed or recently completed developments surrounding the site are as described in the EIS for the approved project. The proposed modification would be carried out within the project site footprint as presented in the EIS and RtS.

The Bunderra Estate (a residential housing estate) and an associated seniors housing subdivision, located on the eastern side of Cockle Creek, Boolaroo have now been developed.

The Metromix Teralba Quarry, off Rhondda Road, currently has an approved development application for the replacement of the existing aged asphalt plant with a new asphalt plant. The Metromix Teralba Quarry is an existing development. It is noted that modifications to the consent (relating to materials and production quantities) have been submitted and approved since authoring the EIS.

Costco Lake Macquarie, approved by the Hunter & Central Coast Regional Planning Panel in December 2020, is operational at 2A Main Street, Boolaroo, about 500 metres east of the approved project. The development has been assessed, approved and constructed since authoring the EIS.

Other proposed and approved developments in the vicinity of the project site include various subdivisions developments to the east and the south west. A number of residential subdivisions have been approved and are in construction east of Main Road at Teralba. Other residential subdivisions to the south west of the project site would be located over one kilometre from the project site and are not expected to be impacted by, or impact, the approved project and proposed modification.

5.15.2 Potential impacts

Proposed and approved residential developments, including Costco, Metromix modifications and residential developments to the east of main Street Boolaroo, are not expected to result in additional sensitive receivers relative to the project site or proposed modification as the developments are beyond the nearest current sensitive receivers captured in operational noise monitoring.

Traffic and transport impacts during construction may occur as a result of the cumulative operation of the developments surrounding the project site. However, due to the nature of the proposed modification, and the nature of the surrounding proposed and approved developments, the developments are considered to represent typical background growth in traffic movements in the area. Therefore, no significant cumulative impacts associated with the proposed modification is expected.

Cumulative noise and vibration impact to sensitive receivers, such as the aged care development, have been considered in the relevant noise section and no potential significant cumulative noise and vibration impacts were identified.

5.15.3 Mitigation and management

As the proposed modification is not expected to result in additional cumulative impacts at or surrounding the project site, mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential cumulative impacts associated with the approved and modified project, and surrounding proposed or approved developments.

A full list of mitigation and management measures relating to the approved project is included as Appendix F.

6 Justification of modified project

The proposed modification seeks consent for improvements to streamline operations and maintain environmental outcomes at the project site.

The proposed modification includes improvements to site operations, and modification of the storage and processing capacity limits for garden and wood waste at the site, at any one time. The proposed modification seeks to modify the 5,000 tpa processing limit to 10,000 tpa and modify the 200 tonnes at any one time storage limit to 2,000 tpa of green waste at the site, at any one time.

Other elements of the proposed modification to site operations include modifying the internal site layout to increase the efficiency of operations, modifying hours of operation at the site to commence at 6:00 am, allowance for crushing and processing in the evening period between 6:00 pm and 10:00 pm Monday – Saturday (resulting in crushing and processing between 6:00 am and 10:00 pm) permitted during northerly and easterly winds only, and operation of the site 24 hours seven days per week (to meet market demand) that would include loading, unloading and dispatch of trucks in the night-time period.

Proposed modifications would require modifying SSD-8753 under Section 4.55(2) of the EP&A Act, considered substantially the same development as the approved project.

Potential environmental impacts as a result of carrying out and operating the proposed modification have been considered within this modification report. The proposed modification is not expected to result in impacts that are significantly greater than those assessed for the approved project in the EIS and RtS.

The proposed modification has the potential to increase noise impacts at nearby sensitive receivers under certain operational scenarios. Night time unloading activities were modelled and found to comply with noise targets at all receivers. However, loading activities (in comparison to the unloading activities) assumes operation of a loader. Based on the modelling for night time loading, operating the loader for at least five minutes generates predicted noise exceedances at NCA 1 and NCA 2 for the majority of significant wind directions. While the NIA (2023) predicts that loading activities may result in noise impacts at sensitive receivers under the majority of prevailing wind conditions, the assessment notes that Concrush are committed to a process of decarbonisation and continue to look for opportunities to replace old plant with newer, cleaner plant (such as the new electric mobile crusher used at the site). As newer technology is adopted, and is quieter, operational noise levels are expected to trend downwards as older plant are replaced.

Loading and unloading activities during the evening period have been approved as part of the approved project.

The NIA (2023) found that crushing could only occur under northerly or easterly wind conditions without resulting in expected noise exceedances to nearby sensitive receivers, based on assessment of crushing and processing occurring in the evening period at both the southern and northern “raw material stockpile, processing areas and processed material stockpile” areas.

Assessment of full operations at the project site during the day time period found (consistent with the results of routine compliance noise monitoring) that noise barriers along the eastern and southern boundary would not be required to minimise noise impacts to sensitive receivers during full operations in the day time period, thus supporting removal of consent Condition B45.

It is noted that the assessment has been based on the existing plant at the project site, and as diesel plant is replaced with quieter plant, crushing and processing noise levels would be expected to decrease. Noise generated during operations at the project site, including potential impacts associated with the proposed modification, would be minimised and managed through the implementation of mitigation measures as outlined in Appendix F.

Potential visual impacts may be experienced as a result of lighting during evening and night-time periods as part of the proposed modification. Potential impacts would be managed through the implementation of mitigation measures as outlined in Appendix F.

The proposed modification to operations is not expected to increase traffic movements to and from the project site. The proposed modification would not seek to increase the traffic movements into and out of the project site, rather the modification to operational hours would extend the potential hours that the nominated traffic may move into and out of the project site.

Overall, the road network is expected to continue to operate at acceptable levels. Mitigation and management measures identified within the EIS for the approved project are considered adequate to manage potential impacts associated with the proposed modifications. The current TMP for the site will be updated to accommodate the proposed modification.

The proposed modification, including the increased processing capacity at the project site, is not expected to result in impacts to water quality at or offsite provided the green waste processing and storage areas do not increase in size, and monitoring and mitigation measures are implemented (Engeny, 2023). This would include provision for Concrush to install water tanks at the project site to capture rainwater for use as part of the project site's water management system, if required and identified through ongoing monitoring.

The proposed modification would not be expected to impact biodiversity values at or surrounding the project site, as the proposed modification would not expand the operation footprint of the project site. Impacts to Aboriginal and non-Aboriginal heritage values at and surrounding the project site are not expected as a result of the proposed modification. The proposal is not expected to impact soils, increase contamination risk, increase or change hazards or other risks, or alter waste management processes currently in place as part of the approved project at the project site.

The proposed modification has the potential to result in minor additional social impacts to stakeholders and residents nearby the project site associated with the modified operational hours and lighting into the evening and night-time periods, and with the loading and unloading of delivery trucks to 24 hours per day, seven days per week. However, the proposed modification would also result in positive social and economic outcomes for the local economy as the extended operational hours would create an estimated three additional FTE employment opportunities.

The provision of increased processing during evening and night-time periods, and the increased processing and storage capacity of green waste at the site would have positive social outcomes for the broader local economy by recycling, for re-use, products that would potentially be destined for landfill. The capacity to store and process a larger quantity of garden and wood waste at any one time also allows Concrush to scale up and down production to meet market demands through peak and trough periods. This increase in storage and processing capacity of green waste at the site, for recycling as useful product, would also reduce green waste destined for landfill in the LGA.

Concrush would notify nearby residents and sensitive receivers about the proposed modification to operations at the project site (if approved), in accordance with the approach outlined in the RtS (Umwelt, 2019), specifically Concrush will:

- successfully make contact with residents
- call and offer residents a meeting to discuss the proposed changes relating to working hours and noise
- send a follow-up email confirming the discussion points and contact details following discussions
- provide residents an opportunity to comment on the proposed modification in relation to the operating hours.

Concrush would continue ongoing engagement with nearby sensitive receivers during operations at the project site, consistent with their approach for existing operations at the project site.

The proposed modification to operations and layout at the project site is not expected to result in significant environmental impacts. The proposed modification would not result in significant impacts on Commonwealth listed threatened species and ecological communities or other Matters of National Environmental Significance, and does not require approval under the EPBC Act.

7 References

Australian Circular Economy Hub [ACEH], 2023. *The Circular Economy*. Available at: <https://acehub.org.au/knowledge-hub/industries/built-environment/the-circular-economy>

Australian Local Government Association [ALGA], 2023. *Waste Reduction and Recycling*. Available at: <https://alga.com.au/policy-centre/waste-reduction-and-recycling/>

Department of Planning and Environment, 2022. *State significant development guidelines – preparing a modification report (Appendix E to the state significant development guidelines)* (DPE, 2022). Available at: <https://www.planning.nsw.gov.au/sites/default/files/2023-03/ssd-guidelines-preparing-a-modification-report.pdf>

Environment Protection Authority, 2014. *Waste Avoidance Resource Recovery Strategy*. Available at: <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wastestrategy/140876-warr-strategy-14-21.pdf?la=en&hash=EC6685E6624995242B0538B18C2E80C0CA2E51B3>

NSW Department of Planning and Environment, 2024. *NSW Planning Portal Spatial Viewer*. Available at: <https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>

Parliament of Australia, 2020. *Waste management and recycling*. Available at: https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview2021/WasteManagementRecycling

8 Limitations

This Report is provided by WSP Australia Pty Limited (*WSP*) for Concrush Pty Ltd (*Client*) in response to specific instructions from the Client and in accordance with WSP's proposal dated August 2023 and agreement with the Client dated 28 August 2023 (*Agreement*).

8.1 Permitted purpose

This Report is provided by WSP for the purpose described in the Agreement and no responsibility is accepted by WSP for the use of the Report in whole or in part, for any other purpose (*Permitted Purpose*).

8.2 Qualifications and assumptions

The services undertaken by WSP in preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, qualifications, assumptions and limitations set out in the Report or otherwise communicated to the Client.

Except as otherwise stated in the Report and to the extent that statements, opinions, facts, conclusion and / or recommendations in the Report (*Conclusions*) are based in whole or in part on information provided by the Client and other parties identified in the report (*Information*), those Conclusions are based on assumptions by WSP of the reliability, adequacy, accuracy and completeness of the Information and have not been verified. WSP accepts no responsibility for the Information.

WSP has prepared the Report without regard to any special interest of any person other than the Client when undertaking the services described in the Agreement or in preparing the Report.

8.3 Use and reliance

This Report should be read in its entirety and must not be copied, distributed or referred to in part only. The Report must not be reproduced without the written approval of WSP. WSP will not be responsible for interpretations or conclusions drawn by the reader. This Report (or sections of the Report) should not be used as part of a specification for a project or for incorporation into any other document without the prior agreement of WSP.

WSP is not (and will not be) obliged to provide an update of this Report to include any event, circumstance, revised Information or any matter coming to WSP's attention after the date of this Report. Data reported and Conclusions drawn are based solely on information made available to WSP at the time of preparing the Report. The passage of time; unexpected variations in ground conditions; manifestations of latent conditions; or the impact of future events (including (without limitation) changes in policy, legislation, guidelines, scientific knowledge; and changes in interpretation of policy by statutory authorities); may require further investigation or subsequent re-evaluation of the Conclusions.

This Report can only be relied upon for the Permitted Purpose and may not be relied upon for any other purpose. The Report does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise. It is the responsibility of the Client to accept (if the Client so chooses) any Conclusions contained within the Report and implement them in an appropriate, suitable and timely manner.

In the absence of express written consent of WSP, no responsibility is accepted by WSP for the use of the Report in whole or in part by any party other than the Client for any purpose whatsoever. Without the express written consent of WSP, any use which a third party makes of this Report or any reliance on (or decisions to be made) based on this Report is at the sole risk of those third parties without recourse to WSP. Third parties should make their own enquiries and obtain independent advice in relation to any matter dealt with or Conclusions expressed in the Report.

8.4 Disclaimer

No warranty, undertaking or guarantee whether expressed or implied, is made with respect to the data reported or the Conclusions drawn. To the fullest extent permitted at law, WSP, its related bodies corporate and its officers, employees and agents assumes no responsibility and will not be liable to any third party for, or in relation to any losses, damages or expenses (including any indirect, consequential or punitive losses or damages or any amounts for loss of profit, loss of revenue, loss of opportunity to earn profit, loss of production, loss of contract, increased operational costs, loss of business opportunity, site deprecation costs, business interruption or economic loss) of any kind whatsoever, suffered on incurred by a third party.

About Us

WSP is one of the world's leading professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, planners, surveyors and environmental specialists, as well as other design, program and construction management professionals. We design lasting solutions in the Transport & Water, Property & Buildings, Earth & Environment, and Mining & Power sector as well as offering strategic Advisory, Engagement & Digital services. With approximately 6,100 talented people in more than 50 offices in Australia and New Zealand, we engineer future ready projects that will help societies grow for lifetimes to come. www.wsp.com/en-au/.

