E T H O S U R B A N

Statement of Environment Effects

Port of Newcastle Operational expansion

Submitted to Department of Planning and Environment On behalf of Aurizon Port Services NSW

30 May 2023 | 2210600



Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land where this document was prepared, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

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			30 May 2023 ban operates under a Quality Management System. This
VERSION NO.	viewed in accordance with that system. If the I DATE OF ISSUE	REVISION BY	APPROVED BY
Ą	14 November 2022	JWL	TW
В	03 April 2023	JWL	TW
С	30 May 2023	JWL	TW
		Ethos Urban Pty Ltd ABN 13 615 087 931. www.ethosurban.com	

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- A Department of Planning and Environment and NSW Environmental Protection Authority Comments Department of Planning and Environment / Ethos Urban
- B Hazard and Risk Report

GHD

C Noise Impact Assessment

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- E Traffic Impact Assessment SLR

1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to the Department of Planning and Environment (DPE) in support of a Development Application (DA) to increase capacity of zinc, copper and lead concentrate, addition of mineral sands and containerised cement to the types of materials stored, loaded and unloaded at the Port of Newcastle (PoN).

The DA seeks approval under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for:

- The addition of mineral sands to the types of materials stored, unloaded and loaded on the Site.
- The increase in capacity of zinc, copper, lead and the additional mineral sands comprising collectively:
 - Loading and unloading (ships Dyke 2) / trains from the adjacent rail line 1.5 million tonnes per annum
 - Increased storage (within a shed) of an additional 60,000 tonnes (maximum storage at any one time) in addition to existing storage capacity of 70,000 tonnes maximum storage – to provide for a total storage capacity at the facility of 130,000 tonnes (maximum storage at any one time).
- External storage of containerised cement on the Site 85,000 tonnes per annum.
- Storage, unloading and loading of concentrate and mineral sands to be undertaken 24 hours, 7 days a week.

The concentrate and mineral sands are to be stored within separate bays within the existing and extended shed (to be constructed under Complying Development). For clarity, the Proposal only includes the operation of the shed (existing and extended), not construction. The Proposal also seeks for the storage of containerised cement located north and south of the existing shed.

The operations included within the Proposal are relatively similar to the current operations, with the exception of the increased capacity (storage, loading and unloading) and the addition of mineral sands and containerised cement. The Proposal does not include any additional rail or shipping movements, which are subject to separate approvals.

This SEE has been prepared by Ethos Urban on behalf of Aurizon and is accompanied by the appendices prepared by technical specialists.

This report describes the Site, its environs and the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment. The application is recommended for approval given the following reasons:

- The Site is an established port facility with pre-existing infrastructure. Expansion of operations and capacity on the Site will make use of existing infrastructure and also complement the current operations;
- Under the Transport and Infrastructure State Environmental Planning Policy (Transport and Infrastructure SEPP) and Newcastle Local Environmental Plan (Newcastle LEP 2012), the Site is zoned SP1 Special Activities. The development meets the objectives of SP1 zoning which is to maximise and accommodate for port facilities including bulk dry storage for shipping;
- The Proposal will ensure that the Site continues to operate under the PoN Lease Area for port-related and industrial uses; and
- The Proposal will enable the expansion of the existing, currently operational site which strategically positioned on the PoN and contributes to the freight industry.

1.1 Approval Pathway

Clause 5.27 of the Transport and Infrastructure SEPP identifies development that is considered State Significant Development (SSD) as being:

- Development carried out with the Lease Area or on unzoned land;
- It is, by operation of an environmental planning instrument, is not permissible with development consent; and
- It has a capital investment value of more than \$100 million or is designated development (except under clause 28(c) or clause 30 of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*).

The Proposal is to be undertaken within the Lease Area, is permissible with development consent, does not have a capital investment value of more than \$100 million and is not considered designated development. Therefore, the Proposal is not considered SSD.

In consideration of the above, the storage of mineral sands on the Site, the loading and unloading of mineral sands and concentrate onto a ship (at the increased capacity), and storage of containerised cement requires development consent. As such, this Proposal is seeking approval as a DA submitted to the DPE in accordance with clause 5.6 of the Transport and Infrastructure SEPP (which specifies that the Minister for Planning is the consent authority for development within a Lease Area).

1.2 Proposal Justification

The proposal is required to ensure the development on the Site will support ongoing port activities and will improve the efficiency of Aurizon's commodity supply chain through the PoN.

2.0 Background

2.1 Previous Approvals

An overview of the key previous approvals, source information, approval authority and status of this development in relation to the Site is shown in **Table 1**.

Table 1 Key previous approvals for the Site

Approval	Description	Approval date	Status
DA 316/81 + BA 821/82	Development of shed (Stage 1) (90m long, 45m wide and 19m high) and ancillary development for handling zinc and lead concentrates (brought to site only via train). The maximum storage within the shed is 15,000 tonnes (t) (7,100m ³) of zinc concentrate and 10,000t (3,600m ³) of lead concentrates. The Environmental Assessment (EA) indicates that ships would be loaded once every 2.5 weeks, with a 'shipping load' comprising the maximum storage limits (15,000t of zinc and 10,000t of lead concentrates). An annual loading capacity is not provided within the EA, however, is identified within the Environmental Protection Licence (EPL) (No. 1431 – refer to Section 2.2 below).		Completed construction, operating.
DA 96/0083	Stage 2 – shed extension	Unclear (presumed to be 1996)	Completed construction, operating.
DA 03/2234	Stage 3 shed extension. Addition of handling copper concentrate.	Unclear (presumed to be 2003)	Completed construction, operating.

In addition to the above approvals, Activity Approval 13/011 (granted on 31 July 2013 by the then Newcastle Port Corporation) included the extension of the existing shed by 150m (total length of 310m). As substantial commencement had not occurred within the 2-year period as required by Clause 5.9 of the Transport and Infrastructure SEPP, the approval has lapsed.

As a result of the lapse of this activity approval, a similar shed is to be constructed under Complying Development (as discussed in **Section 2.3**).

2.1.1 Rail and Ship Approvals

A search of Newcastle City Council's historical records and consultation with the Port of Newcastle (PoN) and Australian Rail Track Corporation (ARTC) ARTC has been undertaken to ascertain the scope of existing approvals in relation to ship and rail movements. It is noted that the ARTC Ops Access Agreement and PoN Lease Agreement do not limit in any way the number of ships and trains that are able to access the PoN. Whilst PoN, ARTC and Aurizon believe that there are no restrictions on the number of train and ship movements through the Port, there are no definitive records of development consent (or other planning approvals such as under Part 5 of the EP&A Act) that approves the additional rail and shipping movements proposed. To ensure a robust and comprehensive environmental assessment of the proposal, the SEE has undertaken an assessment of additional rail and ship movements. In particular, a noise impact assessment has been undertaken (refer to **Section 6.2**). The impacts of ship movements have been addressed through consultation with Transport for New South Wales (TfNSW) Maritime and the Port Authority of NSW.

2.2 Current Licence

Aurizon holds the EPL No. 1431 for the 'Carrington Shiploader and Dyke No. 2 Berth' to facilitate 'shipping in bulk' which is a scheduled activity under Schedule 1 of the *Protection of the Environment Operations Act* 1997 (POEO Act). The EPL boundary includes the Site and the neighbouring berth (Dyke No. 2 – refer to **Figure 1** below).

The EPL permits the handling of greater than 500,000 tpa loaded and unloaded onto ships at Dyke No. 2. No other capacity restrictions are placed upon the EPL.

The EPL requires several regulatory activities to be undertaken including:

- Monitoring of discharges (stormwater) and minimising pollution of waters;
- Not receiving outside regulated waste (for storage, processing, reprocessing or disposal) at the premises;
- Not emit a potentially offensive odour;
- Management of operations to minimise impact on the environment (air quality, noise, spill and waste management);
- Monitoring (copper, lead, pH, total suspended solids and zinc) and recording concentrations of pollutants (at prescribed discharge points); and
- Annual and ongoing reporting.

It is anticipated the EPL will require further updates in accordance with the Proposal (refer to Section 5.0).

2.3 Complying Development (shed extension)

A Complying Development Certificate (CDC) application is currently being prepared by Aurizon for the extension of the existing shed on the Site to a total of 100m in length (refer to **Figure 1**). The construction of the shed may be undertaken in a staged manner. The shed extension is to be undertaken as alterations to a port facility in accordance with Schedule 11, clause 1 of the Transport and Infrastructure SEPP. It is anticipated that the CDC is to be issued by the certifier by 4th quarter 2022.



Figure 1 Construction of shed extension (by CDC)

Source: Nearmap/Ethos Urban

2.4 Consultation

Consultation has been undertaken prior to the lodgement of the DA. The relevant stakeholders that have been consulted and a brief description of the consultation undertaken to date is provided in **Table 2**.

Stakeholder	Consultation undertaken
Australian Rail Track Corporation (ARTC)	Aurizon have informally consulted ARTC and no objections have been raised. Formal correspondence to ARTC was provided by Aurizon on 09 May 2022.
Department of Planning and Environment	 Aurizon and Ethos Urban has consulted with DPE on a number of occasions, including a briefing letter (on 4 November 2021), periodic telephone conversations and a meeting 5 May 2022. The key comments raised by DPE to date are as follows: Guidance on the inclusions for this Development Application – addressed within Appendix A of this SEE
	 Preference of the SEE being submitted post the issuing of a Complying Development Certification (CDC) for the proposed shed extension. Failing this, the application could be lodged however would not be determined until this CDC has been provided. The CDC is under preparation and is to be issued by the certifier by the 4th quarter of 2022.
City of Newcastle Council	A pre-DA meeting was held with the City of Newcastle Council on 1 April 2021 when the project was still in its conceptual phase and a planning approval pathway had not yet been established. Council was also provided with an overview (via letter) of the Proposal on 9 December 2021 and provided no further comment.
Port of Newcastle (PoN)	The PoN has been consulted on several occasions (since October 2021) in relation to the Proposal. PoN is in support of the DA and has issued landowner's consent from NSW Treasury (submitted under separate cover) and also assisted with providing background information. The PoN did not require any further assessment to permit the increased movements associated with the Project.
Port Authority of NSW	Engagement was undertaken with the Port Authority of NSW on 8 March 2023 who confirmed on 16 March 2023 that the proposal will not impact the safety of operations at the Port and that the additional vessels required can be accommodated based on the present channel utilisation and berth occupancy.
Transport for New South Wales (TfNSW) Maritime	TfNSW Maritime was contacted on 15 March 2023 and was provided with an overview of the Proposal. Maritime responded on 16 March 2023 and had no comment.
Environment Protection Authority (EPA)	The EPA was contacted by Aurizon on 9 December 2021 and was provided with an overview of the Proposal. The EPA responded on 17 December 2021 listing a series of matters to be addressed in the SEE (addressed in Appendix A).
Surrounding residents	A letterbox drop to residential properties in Carrington, Stockton and Honeysuckle where noise monitoring was undertaken. The only feedback received was in relation residents providing their consent to the monitoring, and one neighbour requested further detail as to the suitability of the background noise level monitors.

 Table 2
 Consultation undertaken to date

This SEE (and the associated technical specialist information) considers and responds to the comments received during these consultation activities.

3.0 Site Analysis

3.1 Site Location and Context

The Site is located within the PoN lease area within the suburb of Carrington in the Newcastle Local Government Area (LGA).

The immediate surrounds are characterised by industrial and logistics operations. Notwithstanding this, residential areas are in relatively close proximity within Carrington (approximately 400m west of the Site) and Stockton (approximately 750m east (across the Hunter River)).

The Site's locational context is shown in Figure 2.





3.2 Site Description

The Site is legally described as Lot 16, DP 1190232 (northern part) and Lot 220, DP1195310 (southern part) and leased by Aurizon from the PoN. The Site is accessed by vehicle from Bourke Street from the north, from train on the Port of Newcastle rail corridor from the east and by ship on the neighbouring berths, further east (on the Hunter River). The Site's area is approximately 2.6Ha and is irregular in shape.

The Site currently includes a tippler building for the unloading of containerised concentrate, shed (inc. bays and a hopper) used for the storage of zinc (\approx 30%), copper (\approx 50%) and lead (\approx 10%) and bulk concentrate containing lead and zinc (\approx 10%), enclosed conveyor to transfer these concentrates to the berths, an administration building, rail corridor and storage yard and other ancillary development.



Figure 3Site aerialSource: Nearmap / Ethos Urban

3.3 Existing Operational Overview

The current operations for the storage and transfer of concentrates (to and from the Site) are as follows:

- Concentrate is transported to Site by rail (in sealed containers).
- Containers are unloaded from rail (via a forklift) at the Tippler Pad (unloading pad) into the Tippler building (Figure 4).
- Concentrate containers are 'tipped' (while inside the fully enclosed Tippler building) to allow transportation of concentrate to the shed via enclosed conveyors, empty containers are placed back on the train wagon.
- The Tippler building is fully enclosed with dust emission from tipping activities mitigated by a retractable curtain and operation of a negative pressure system.
- Concentrates are placed in specific bays (stockpiles) via the conveyor system (Figure 5) within the shed (Figure 6).
- Concentrates are removed from bays (via front end loaders) and placed within the hopper (within the shed).

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- The hopper transfers concentrate to the conveyor (**Figure 7**) which is transferred to the ship loader (via three conveyors and two transfer stations).
- The ship is loaded and leaves the berth.

An overview of the key existing operational aspects (in addition to above) are provided within Table 3.

Table 3 Existing operations overview

Operational element	Existing	
Workforce	8	
Hours	24 hours, 7 days a week (for all activities)	
Transport		
Heavy vehicle movements	20 per week	
Light vehicle movements	Approximately 80 per week	
Materials handling		
Train loads (not including movements)	8 trains per week	
Ship loads (not including movements)	4-5 per month	

The storage and unloading and loading of concentrate from trains to ships is included within the approvals of the Site. However, the movement of trains (on the neighbouring rail line) to the Site are included within separate approvals. Shipping movements are conducted under a PoN held licence.



 Figure 4
 Railway line and Tippler Pad

 Source: Ethos Urban



 Figure 6
 Shed showing concentrate

 Source: Ethos Urban
 Source State



Figure 5 Conveyor that transports concentrate into shed





Figure 7 Conveyor that transports concentrate to ship

Source: Ethos Urban

3.4 Surrounding Development

The following development surrounds the Site:

- North: To the immediate north of the Site is the Hunter River which extends from the Liverpool Range through to the Tasman Sea at Newcastle. Further north and across the Hunter River is Kooragang Island which comprises of industrial uses and is also part of the PoN Lease Area.
- **East:** To the immediate east of the Site is the Hunter River. Further east is the residential suburb of Stockton which primarily comprises of low density detached, one (1) to two (2) storey dwellings.
- **South:** To the immediate south of the Site is land related to the operations of the PoN (also within the Lease Area). Further south and beyond Hunter River is the city of Newcastle which comprises a mixture of retail, commercial and residential development.
- West: To the immediate west of the Site is land related to the operations of the PoN (also within the Lease Area). Further west development comprises a mix of industrial and residential uses in the form of detached one (1) to two (2) storey dwellings in the suburb of Carrington.

4.0 **Options Analysis**

Three (3) development options for the expansion of the existing operations on the Site were explored, all differing in the quantity of materials proposed. Refer to **Table 4**.

Table 4	Develo	opment options		
Option	Shed Extension (m)	Loading and unloading (ships – Dyke 2)	Approximate storage within shed extension (tonnes)	Approximate storage within existing shed + shed extension (tonnes)
Option 1	35	750,000 tpa (zinc, lead, copper concentrates and mineral sands)	21,000	91,000
Option 2	60	1.2 million tpa (zinc, lead, copper concentrates and mineral sands)	36,000	106,000
Option 3	100	1.5 million tpa (zinc, lead, copper concentrates and mineral sands)	60,000	130,000

Option 3 has been selected as the preferred option as it seeks to maximise the utilisation of the Site which is an already established port facility with pre-existing infrastructure and relates to uses which are permissible under the Site's zoning (SP1 Special Activities).

5.0 Description of Proposed Development

This DA seeks approval for the following development:

- The addition of mineral sands to the types of materials stored, unloaded and loaded on the Site. The ratio of which will be generally consistent with the existing ratio of materials currently on the site as noted in Section 3.2.
- The increase in capacity of zinc, copper, lead and the additional mineral sands comprising collectively:
 - Loading and unloading (ships Dyke 2) / trains from the adjacent rail line 1.5 million tonnes per annum
 - Increased storage (within a shed) of an additional 60,000 tonnes (maximum storage at any one time) in addition to existing storage capacity of 70,000 tonnes maximum storage – to provide for a total storage capacity at the facility of 130,000 tonnes (maximum storage at any one time).
- External storage of containerised cement on the Site 85,000 tonnes per annum.
- Storage, unloading and loading of concentrate and mineral sands to be undertaken 24 hours, 7 days a week.

The concentrate and mineral sands are to be stored within separate bays within the existing and extended shed (to be constructed under Complying Development). The detailed design for the shed extension (which is to be undertaken via the Complying Development Certificate pathway) is currently approaching completion. For clarity, the Proposal only includes the operation of the shed (existing and extended), not construction. The Proposal also seeks for the storage of containerised cement located north and south of the existing shed.

The operations included within the Proposal are relatively similar to the current operations, with the exception of the increased capacity (storage, loading and unloading) and the addition of mineral sands and containerised cement.

The proposal necessitates a modification of the DA316-81 consent. It is proposed to delete the following conditions from that consent, as they no longer reflect the nature of operations at the site:

• Condition 21: The whole of the premises remaining in a single occupation and no portion of the premises being let or used independently without the prior approval of Council.

• Condition 24: The proposed means of transporting the zinc and lead concentrates to the subject site and into the unloading station being restricted to rail transport only.

The process to modify DA316-81 is described in **Section 6.1**. Pursuant to Section 4.17 of the EP&A Act and the associated clause 67 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), it is requested that the Department of Planning and Environment, if it determines to approve this DA, impose a condition of consent that requires DA316-81 to be modified by way of removing Conditions 21 and 24.

5.1 Proposed Operational Overview

The Proposal would operate under a similar but intensified process to that currently undertaken on site (as discussed within **Section 3.3** – above). Subject to the timing of the construction of the shed extension, the Proposal would operate in the following phases:

- <u>Phase 1</u> Within the existing shed (extension not undertaken) inclusion of mineral sands storage, to be
 accommodated, along with zinc, copper and lead concentrate within the existing shed at the same capacity as
 is currently approved (i.e. a maximum storage of 70,000 tonnes at any one time). Trains and ships would be
 unloaded and loaded (respectively) at their current capacity.
- <u>Phase 2</u> On completion of the shed extension being constructed, storage of mineral sands, zinc, copper and lead concentrate within the extended shed at an increased capacity (i.e. maximum storage of 130,000 tonnes at any one time). Trains and ships would be unloaded and loaded (respectively) at an increased capacity (approximately 1.5 million tonnes per annum).

Phase 1 would only be pursued should the construction of the shed extension not have been completed on determination of this Development Application. Phase 2 is considered to be the 'worst-case scenario', although it is considered to cause minimal environmental impact as noted in the preceding sections of this SEE. As such, Phase 2 has been assessed and no assessment is required for Phase 1.

The Proposal also seeks approval for the storage of containerised cement. Approximately 20 ISO containers are proposed to be transported to and from the site per day (1 per truck). The ISO containers (transported via truck) will be lifted by front end loaders and stored at the northern portion of the Site (as identified in **Figure 8**). ISO Containers that will be lifted by long reach stackers will be stored in the southern portion of the Site (as identified in **Figure 8**). Up to 90 ISO containers will be stored on site at any given time. The containers are then proposed to be loaded onto trains from both areas.

An overview of operational changes included within the Proposal are shown in Table 5.

Operational aspect	Existing	Proposed	Total	Altered from existing operations (Y/N)?
Workforce	8	0	8	Ν
Hours	Up to 24 hours, 7 days a week depending on train and ship unloading/loading requirements (for all activities)	Up to 24 hours, 7 days a week depending on train and ship unloading/loading requirements (for all activities)	0	N
Transport*				
Heavy vehicle movements (daily)	1 (ad-hoc deliveries)	20	21 (147 per week)	Υ
Light vehicle movements (daily)	16	0	16 (112 per week)	Ν
Materials handling				
Train loads (not including movements)	8 per week	4 per week	12 per week	Y

Table 5 Operational overview

Operational aspect	Existing	Proposed	Total	Altered from existing operations (Y/N)?
Ship loads (not including movements)	4-5 per month	2-3 per month	7 per month	Y

*Vehicle movements consider movements accessing and exiting the Site (e.g.10 heavy vehicle deliveries equals 20 movements).



 Figure 8
 Vehicular access and location of containerised cement storage area

 Source: SLR
 Vehicular access and location of containerised cement storage area

5.1.1 Access and Parking

Both light and heavy vehicles will access the Site in the same way existing vehicles access the Site via Bourke Street. Existing light vehicular parking is provided on site to the north of the existing storage shed. Heavy vehicles associated with the unloading of the containerised cement will travel via the path shown in **Figure 8** and will be able to deliver to the northern and southern sections of the Site as operational demands require.

5.2 Operational Environmental Management Plan

The Site and its current operations are currently subject to an existing Environmental Management Plan (EMP) provided at **Appendix D**. The EMP and its associated subplans will be updated to reflect the proposed works.

6.0 Statutory Planning and Environmental Impact Assessment

This section considers the planning issues relevant to the proposed development and provides an assessment of the relevant matters prescribed in section 4.15(1) of the *Environmental Planning and Assessment Act* 1979 (EP&A Act).

6.1 Environmental Planning Legislation and Instruments

The DA's consistency and compliance with the relevant environmental planning instruments is considered in **Table 6**.

Plan	Comments	
State Legislation		
Environmental Protection Biodiversity Conservation Act 1999 (EPBC Act 1999)	 The nine (9) matters of national environmental significance to which the EPBC Act 1999 applies are: World heritage properties; National heritage places; Wetlands of international importance; Nationally threatened species and ecological communities; Migratory species; Commonwealth marine areas; The Great Barrier Reef Marine Park; Nuclear actions; and A water resource, in relation to coal seam gas development and large coal mining development. The Proposal is not considered to have a significant impact on any of the Matters of National Significance and as a result the Proposal is not considered to be a controlled activity. Therefore, no referral is required for the development application. 	
Environmental Planning	This DA has been prepared in accordance with Section 4.15 of the EP&A Act.	
& Assessment Act 1979 (EP&A Act)	 Section 4.17 of the EP&A Act states the following: 4.17 Imposition of conditions 1. Conditions—generally A condition of development consent may be imposed if— (b) it requires the modification or surrender of a consent granted under this Act in relation to the land to which the development application relates. 5. Modification or surrender of consents or existing use rights If a consent authority imposes (as referred to in subsection (1)(b)) a condition requiring the modification or surrender of a consent granted under this Act, the consent may be modified or surrendered subject to and in accordance with the regulations. Clause 67 of the Environmental Planning & Assessment Regulation 2000 (EP&A Regulation) states the following: 	

 Table 6
 Summary of consistency with environmental planning legislation and instruments

Plan	Comments
	67 Modification or surrender of development consent or existing use right—the Act, s 4.17(5)
	 A development consent may be modified by written notice to the consent authority. The notice must contain the following information— a) the name and address of the person giving the notice, b) the address and folio identifier of the land to which the consent relates, c) a description of the consent to be modified, d) whether the consent will be modified, including details of the modification, or surrendered, e) if the person giving the notice is not the owner of the land—a statement signed by the owner of the land that the owner consents to the modification of the consent or right. The notice takes effect when the consent authority gives written notice to the person giving the notice. The notice operates, according to its terms, to modify the development consent to which it relates.
	The operation of Section 4.17 of the EP&A Act with clause 67 of the EP&A Regulation enables the Department to impose a condition that facilitates the future modification of a previously approved development consent on the same land, enabling necessary amendments to the DA316-81 consent to remove inconsistencies between existing consents and the newly approved Proposal (if it approved). If such a condition is applied, then the modification of DA316-81 would be progressed by way of giving Newcastle Council a notice in accordance with clause 67 of the EP&A Regulation (instead of assessment under Section 455 of the EP&A Act).
Protection of the Environment Operations Act 1997 (POEO Act)	The POEO Act outlines the environmental regulatory framework and includes a licensing requirement for certain activities (Schedule 1), with environment protection licences granted as a means to control the localised, cumulative and acute impacts of pollution in NSW.
	An EPL – No. 1431 has been previously obtained and is applicable to the Site and the neighbouring berth (Dyke No. 2- refer to Figure 1). The EPL is for the 'Carrington Ship loader and Dyke No. 2 Berth' to facilitate 'shipping in bulk' which is scheduled activity under Schedule 1 of the POEO Act. The Proposal's noise, hazard and risk and air quality impacts are discussed further in Sections 6.3 to 6.5 .
	The proposed cement storage works are classified as a scheduled activity under Schedule 1, Clause 6 of the POEO Act as it comprises the handling of more than 30,000 tonnes of cement per year. Accordingly, the existing EPL will need to be updated to reflect the proposed cement works.
State Environmental Pla	anning Policy
Transport and Infrastructure State Environmental Planning	The Site is located within the 'Port of Newcastle Lease Area' and therefore the key guiding environmental planning instrument is the Transport and Infrastructure SEPP, namely Chapter 5 (Three Ports – Port Botany, Port Kembla and Newcastle).
Policy (Transport and Infrastructure SEPP)	Under Clause 5.11 of the Transport and Infrastructure SEPP, the Site is zoned as SP1 Special Activities. The proposed works are consistent with the definition of 'port facilities' and is therefore permissible with consent in the SP1 Special Activities zone under Clause 5.11 of the Transport and Infrastructure SEPP. The use is consistent with the objectives of the zone which seek to maintain and strengthen the port, freight and bulk storage and industrial and maritime industrial land uses to support the on-going efficiency of operations of the PoN.
	As the Proposal is to be undertaken within the Lease Area, is permissible with development consent, does not have a capital investment value of more than \$100 million and is not considered designated development, the Proposal is not considered state significant and therefore has been prepared in accordance with Section 4.15 of the EP&A Act and the Transport and Infrastructure SEPP.
Resilience and Hazards State Environmental Planning Policy (Resilience and Hazards SEPP)	The Proposal does not seek approval for any Dangerous Goods on the Site and as such the Proposal is not deemed a 'potentially hazardous industry' as classified under the Resilience and Hazards SEPP.
Local Environmental Pla	an
Newcastle Local Environmental Plan 2012 (Newcastle LEP 2012)	While the Site is located in the Newcastle LGA, which is typically subject to the Newcastle LEP 2012, it is subject to the provisions of the Transport and Infrastructure SEPP as it is located within a Lease Area and therefore the provisions of the Newcastle LEP 2012 do not apply.

6.2 Noise

A Noise Impact Assessment (NIA) Report has been prepared by SLR which addresses the requirements outlined by the DPE, being:

- Identification of impacts associated with site emission and traffic generation at noise affected sensitive receivers, including sleep disturbance impacts
- Details of noise monitoring survey, background noise levels and noise emission levels of proposed activities
- · Consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area
- · The cumulative impacts of the development and all current operations of the site
- Details and analysis of the effectiveness of proposed management and mitigation measures to adequately
 manage identified impacts, including a clear identification of residual noise following application of these
 measures and details of any proposed compliance monitoring programs.

The Report notes the nearest sensitive receivers are residential properties located 350-600m to the west in Carrington, 720m to the east in Stockton and 900m to the south in Honeysuckle. The nearest receivers are listed below and identified in **Figure 9**:

- 103 Bourke Street Carrington;
- 47 Victoria Street, Carrington;
- 107 Lott Street, Carrington;
- 149 Wilson Street, Carrington;
- 338 Wharf Road, Newcastle; and
- 70 Hunter Street, Stockton.

The selection of the above sites is a representative of the surrounding residential and has resulted in appropriate background noise results to inform the noise impact assessment. It should be noted that the properties closest to the site are not always necessary as the location for background noise monitoring, and that where a noise logger location is slightly less impacted by existing environmental noise, then this would have the effect of lowering the noise trigger levels, which is beneficial to neighbours.





Residential receiver locations

Source: SLR

6.2.1 Existing Environment

Unattended noise monitoring was completed in February 2022 which have been used to determine the existing noise environment and establish the criteria used to assess the potential impacts from the Proposal. The existing noise management levels are provided in **Table 7**.

ID	Address	Measured Noise Levels (dBA)						
		Background	Noise (RB	L)	Average Noise (LAeq)			
		Day	Evening	Night	Day	Evening	Night	
L01 (NCA1)	93 Bourke Street, Carrington	44	48	40	58	56	52	
L02 (NCA2)	Rydges, Wharf Road, Newcastle	47	47	46	56	55	50	
L03 (NBA3)	33 Fullerton Street, Stockton	40	42	42	71	67	68	

Table 7 Summary of unattended noise logging results

Source: SLR

Short-term attended noise monitoring was also completed. Detailed observations from the attended measurements are provided in **Table 8**.

Attended	Location	Date/Start	Primary M	Noise Dese	criptor (dB	A)		Key Noise Sources
ID		time/Weather	LAmax	LA1	LA10	LA90	LAeq	
A01 (NCA1)	93 Bourke Street, Carrington	15/2/2022 15:50 Temp: 25 °C Wind: 6.5m/s NE	84	68	61	54	61	Traffic 54-84Aurizon port 50-52
A02 (NCA2)	Rydges, Mereweather Street, Newcastle	15/2/2022 15:04 Temp: 25 °C Wind: 6.5m/s NE	71	60	56	51	54	 Wind 51-56 Industrial noise 55-62 Pedestrians 62-71
A03 (NBA3)	33 Fullerton Street, Stockton	15/2/2022 14:09 Temp: 25 °C Wind: 6.5m/s NE	69	63	56	46	53	Wind 46-57Birds 55-69Traffic 54-63

Table 8	Operator attended noise monitoring results
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Source: SLR

6.2.2 Impact Assessment

The NIA Report outlines the predicted levels of noise at the receivers surrounding the Proposal and compares them to the Project Noise Trigger Levels (PNTLs) which are the most stringent of the intrusiveness and amenity trigger level for each period of the day being either daytime, evening or night-time. The analysis provided in **Tables 9** and **10** demonstrates the noise from the Proposal is predicted to comply with the PNTLs at all receivers under standard meteorological conditions. It was however found, under noise-enhancing weather conditions, the night time period at receivers R2 and R6 (103 Bourke Street, Carrington and 70 Hunter Street, Stockton) are predicted to exceed the relevant PNTLs by up to 2dB from expanded operational activities.

The NIA Report outlines the exceedance applicable to R2 is primarily related to approved existing operations. The exceedance at R6 is primarily driven by additional plant and equipment operating to the south of the APSN. It should be noted an exceedance of up to 2dB is considered to be negligible and would not be discernible by the average listener.

		Noise L		F		
Location	Period	PTNL (dBA)	Predicted Noise Level – APSN Existing	Predicted Noise Level – APSN including Expansion	Exceedance Existing	Exceedance Existing and Expansion
R1	Day	49	36	41	-	-
	Evening	48	36	41	-	-
	Night	45	36	41	-	-
R2	Day	49	44	44	-	-
	Evening	48	44	44	-	-
	Night	45	44	44	-	-
R3	Day	49	37	40	-	-
	Evening	48	37	40	-	-
	Night	45	37	40	-	-
R4	Day	49	33	35	-	-
	Evening	48	33	35	-	-
	Night	45	33	35	-	-
R5	Day	52	28	37	-	-
	Evening	48	28	37	-	-
	Night	43	28	37	-	-
R6	Day	45	37	42	-	-
	Evening	45	37	42	-	-
	Night	43	37	42	-	-

Table 9 Industrial noise assessment – Standard weather conditions

Table 10 Industrial noise assessment – Noise enhancing weather conditions

		Noise L	evel LAeq (15 minute) dl.		Exceedance	
Location	Period	PTNL (dBA)	Predicted Noise Level – APSN Existing	Predicted Noise Level – APSN including Expansion	Exceedance Existing	Exceedance Existing and Expansion
R1	Day	49	38	43	-	-
	Evening	48	38	43	-	-
	Night	45	38	43	-	-
R2	Day	49	46	47	-	-
	Evening	48	46	47	-	-
	Night	45	46	47	1	2
R3	Day	49	40	42	-	-
	Evening	48	40	42	-	-
	Night	45	40	42	-	-
R4	Day	49	36	37	-	-
	Evening	48	36	37	-	-
	Night	45	36	37	-	-
R5	Day	52	30	40	-	-
	Evening	48	30	40	-	-
	Night	43	30	40	-	-

		Noise L	evel LAeq (15 minute) de		Freedomoo	
Location	Period	PTNL (dBA)	Predicted Noise Level – APSN Existing	Predicted Noise Level – APSN including Expansion	Exceedance Existing	Exceedance Existing and Expansion
R6	Day	45	40	45	-	-
	Evening	45	40	45	-	-
	Night	43	40	45	-	2

Source: SLR

Rail Noise Impact

An assessment of the rail noise impact against the NSW EPA Rail Infrastructure Noise Guideline (RING) has been undertaken. The increase in train movements (i.e. average increase of approximately 8 train movements per week) will give rise to an increase in the daytime/evening LAeq (15 hour) and night-time LAeq (9 hour) train pass-by-noise levels on the ARTC network in the vicinity of the Project. The increase in the train pass-by noise levels (in isolation from other coal and freight traffic) can be estimated from the 50% increase in proposed train movements.

The 50% increase would produce a minor 1.7dB project related increase to the existing daytime/evening LAeq (15 hour) noise levels from proposed trains servicing the Project (in isolation) compared to trains servicing the existing Site (in isolation).

The Project related increase to the existing daytime/evening LAeq(15hour) and night-time LAeq(9hour) train passby noise levels from trains servicing the Project would be appreciably less than 1.7 dB if considered against the baseline of all existing and approved coal and freight train movements into Port Waratah and Bullock Island (and their associated pass-by noise levels) through Carrington, Tighes Hill and Mayfield and would be less than 0.5 dB.

As there would be no change to the types of trains associated with the Project there would be no change to the maximum train pass-by noise level [LAmax (95th percentile)] as a result of the Project.

Shipping Traffic Noise Impact

Regarding noise impacts associated with shipping movements, there is currently no applicable noise limits or assessment guideline for the assessment of noise from additional shipping movements on Newcastle Harbour. It is understood that over 2,200 trade vessels use the PoN each year (in the order of approximately 183 vessels per month) the increase in overall shipping noise levels on a monthly basis due to the Project would result in an increase of less than 0.1Db. Noise from individual shipping movements would remain unchanged as a result of the Project. Notwithstanding, any potential noise impacts would be considered negligible.

6.2.3 Mitigation Measures

The NIA includes a series of mitigation measures, provided in **Table 11**. The measures have been assessed and are not considered feasible in the context of the project due to the impact on the reliability of the equipment and because the noise impacts were considered negligible.

Mitigation Measure	Estimated Individual Source Noise Reduction	Description and Comments on Feasibility and Reasonableness
Source Control Measures		
Noise mitigation measures to Forklift consisting of engine cowling upgrades, cooling fan upgrades and or exhaust muffler upgrades	Nominally 5-10 dB	Potentially feasible subject to upgrading fans and exhaust muffler can be expensive and may reduce the efficiency and reliability of the forklift.
Noise mitigation measures to Reach Stacker consisting of engine cowling upgrades, cooling fan upgrades and or exhaust muffler upgrades	Nominally 5-10 dB	Potentially feasible, upgrading fans and exhaust muffler can be expensive and may reduce the efficiency and reliability of the reach stacker.

Table 11 Noise mitigation and management options

Mitigation Measure	Estimated Individual Source Noise Reduction	Description and Comments on Feasibility and Reasonableness
Path Control Measures		
Eastern Boundary Noise Barrier	Marginal	Not considered feasible to construct due to a high impact on operations (segregation of rail line from loading operations, reduction in storage space, reduction in available space for truck movements accessing the site, reach stackers/forklifts to move). Not considered reasonable due to the significant height required to provide significant attenuation under noise enhancing conditions along with accessibility constraints.
Western Boundary Noise Barrier	Negligible	Not considered feasible to construct due to a high impact on operations (segregation of rail line from loading operations, reduction in storage space, reduction in available space for truck movements accessing the site, reach stackers/forklifts to move). Not considered reasonable due to the significant height required to provide significant attenuation under noise enhancing conditions along with accessibility constraints.

Source: SLR

The NIA provides a list of best practice noise mitigation and management strategies that will be implemented at the Site, as provided below:

- An awareness and understanding of noise issues and the use of quiet work practices will be included in Site inductions for all staff, contractors and visitors to the Site. Specific mention of the following items will be included:
 - Site specific noise management measures to be followed.
 - Locations of nearby noise sensitive receivers.
- The simultaneous use of multiple items of significant noise generating equipment will be avoided wherever possible, scheduling operations so they are used separately rather than concurrently.
- The noisiest activities (handling of cement containers) will be scheduled to the least noise sensitive times of the day (i.e. not during the night-time period) where practicable.
- Ensure that openings to buildings are closed while noisy works are being undertaken inside.
- All machinery and plant used on- Site will be maintained and operated in a proper and efficient manner to minimise noise generation.
- Switch off plant and equipment when not in use and avoid excessive idling.
- Maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not operational until fully repaired.
- Procurement processes for new plant and equipment would be subject to the requirement that the equipment being replaced not lead to any increase in noise levels. Specify maximum allowable noise/sound levels when purchasing equipment. This would enable low noise mobile and fixed plant equipment to be used as part of future operations and continual noise improvement over time.
- An awareness of industry developments will be maintained in relation to noise mitigation engineering for individual plant items in order to assess inherent cost and practicality with a view of continuously improving noise performance.

6.3 Hazard and Risk

A Hazard and Risk Report has been prepared by GHD which assesses the impact of potential hazards associated with the use of dangerous good and hazardous substances that may arise during the operation of the Proposal. The report makes reference to the hazard and risk requirements provided by the DPE (listed in **Appendix A**).

6.3.1 Existing Environment

The existing operational site includes the management of dangerous goods, specifically, diesel, lubricants, waste oil, acetylene and weed poison. The operations are currently undertaken in accordance with the EPL (EPL 1431) which applies to the Site.

6.3.2 Impact Assessment

Operation

Dangerous goods storage

The Hazard and Risk Report confirms the metal concentrates and mineral sands are not classified as dangerous goods and that the quantity of dangerous goods currently managed on site will remain unchanged as a result of the Proposal. Additionally, the addition of mineral sands on the Site will not result in any adverse impacts or accumulative effects of the Site's expansion. Further, the containerised cement is not considered a dangerous good.

As such, the Proposal is not considered to be 'potentially hazardous' and a Preliminary Hazard Analysis is not required.

Amenity screening

The final amenity level on-site is to comply with the EPA requirements as required by the EPL that currently applies on the Site. Levels will be mitigated and managed appropriately to reduce adverse impacts to the surrounding area. As there are no noise and vibration conditions contained within the EPL, the Site will comply with industry standards for noise and vibration as noted in **Section 6.2**. In summary, complying with the licence conditions and relevant industry standards, the Proposal is not considered "offensive".

Hazard identification and management

A hazard identification list and relevant safeguard measures have been included in the report and replicated below in **Table 12**. All identified hazards can be suitably controlled.

Hazard Scenarios	Causes	Consequences	Further Assessment Required for Off-Site Risk	Existing Safeguards		
Natural hazards	Flooding, earthquake, lightening, storm surge	 Personal injury Plant shut down Possible fire 	No	 Infrastructure designed to appropriate codes and standards Housekeeping standards Stormwater Management infrastructure Emergency Response plan 		
External fire (adjacent to site)	Fire or explosion from adjacent land users	 Asset damage Plant shut down Personal injury 	No	 Site fuel management Buildings designed to appropriate codes Fire protection systems (e.g. fire hose, extinguishers etc) Housekeeping standards Emergency Response plan 		
Handling of mineral sand	Not familiar/ inexperienced with material	 Personal injury 	No	 Safety Data Sheet (Safety Data Sheet) Operator Training Personal Protective Equipment (PPE) 		

Table 12Hazard identification list

Hazard Scenarios	Causes	Consequences	Further Assessment Required for Off-Site Risk	Existing Safeguards
Contact with materials	 Zinc concentrate Copper concentrate Lead concentrate Mineral sands 	Personal irritation	Νο	 Transfer and handling procedures Safe Work Method Statements (SWMS) Safety showers and eye wash stations PPE
Exposure to Dust/Air quality	 Concentrate materials deliveries Mineral sand transfer 	 Health risk Third party complaints 	Considered separately in Section 6.4 .	 Dust extractor (HEPA filters) PPE Maintenance of equipment Fogging system Routine Vacuum/ housekeeping Materials are handled and stored in fully enclosed area Tipper operates with a negative pressure and curtain system
Noise	 Excessive noise during construction Excessive noise during operations 	 Personal Injury Third party complaints 	Considered separately in specialist report (SLR, 2022)	 Construction environmental management plan Operational management environmental plan Use sound dampening equipment where possible Appropriate hearing protection on site Complaint management procedure PPE Maintenance of equipment
Engulfment	Storage of mineral sand Storage of metal concentrate	Personal injury/fatality	No	 Site induction Barricading if possible Trained and competent personnel Job planning Fitness for work procedure SWMS
Fall from heights	Working at height	Personal injury/Fatality	No	 Working at heights procedures Working at heights training Fall prevention equipment Guarding where practical
Manual handling	Inappropriate lifting of objects or repetitive work activities	Personal injury	No	 Site induction Trained and competent personnel Job planning Fitness for Work Procedure SWMS
Water Quality	Pollution of water	Environmental Impact	No	Environmental Management Plan

Source: Hazard and Risk Report, GHD

6.3.3 Mitigation Measures

The existing management procedures will be updated to incorporate the proposed practices to prevent or mitigate potential risk scenarios occurring through:

- Minimising build-up of dust on-site from the increase transportation of additional materials in accordance with the existing EMP and EPL; and
- Familiarising operators with mineral sands through updated SWMS and operational procedures.

Notwithstanding the above, it is noted the existing hazard control mitigation measures are sufficient in relation to the proposed activities and, provided the proposal complies with the existing licence conditions and relevant policies and implementing the safeguard measures stipulated above, the proposed expansion is not considered "offensive".

6.4 Air Quality

6.4.1 Existing Environment

The existing operations on the Site ensure all materials transported to the Site are containerised until they enter the enclosed Tippler Building and shed. Dust controls onsite consist of

- · Loading arms, conveyors and storage shed are fully enclosed.
- Tippler building operates with a negative pressure and curtain system.
- Received concentrate moisture levels managed by mine site with exceedances identified by APSN and communicated to mine sites as required.
- Product moisture levels are maintained between 7% and 11% utilising concentrate and loading arm fogging sprays.
- PM10 and controlling/HEPA filtered dust extraction and fume collection system operates on the Tippler and Concentrate Shed respectively.
- Routine vacuum of site infrastructure.

Air quality is currently monitored and maintained under Condition 03 of the EPL which requires:

- The premises be maintained to minimise/prevent emission of dust from the premises;
- All operation and activities to be carried in a matter that will minimise the emission of dust from the premises; and
- Trucks that enter and leave the premises carrying loads of dust generating materials to have their loads covered at all times, except during loading and unloading.

Air quality monitoring was previously included as a requirement of the EPL for the Site, however subject to recent discussions with EPA and based upon ongoing compliance (below applicable measuring criteria) these air monitoring requirements have since been removed (from the EPL).

6.4.2 Impact Assessment

The Proposal does not seek to change the existing operations related to the transportation and storage of materials. The transfer of materials (concentrate and mineral sands) will be containerised (on trains) and via an internal conveyor (within the shed and transferred to the ships). The storage and stockpiling of materials would, as is consistent with current operations, be fully enclosed. Similarly, the proposed materials entering and exiting the Site will be containerised. Vehicles unloading the cement will travel via sealed surfaces which will minimise any air pollution impacts. Given the minor change in the number of trains expected as a result of the Proposal (i.e. average increase of approximately 8 train movements per week), the emissions are unlikely to change the local ambient air quality. In summary, the proposed works are considered to result in a negligible impact on air quality as a result of the Proposal.

6.4.3 Mitigation Measures

Air quality will continue to be monitored and maintained under Condition 03 of the EPL to minimise dust emissions.

6.5 Traffic and parking

6.5.1 Existing Environment

The proposal comprises the transportation of cement utilising the existing road network from 21 Heron Road, Kooragang to the APSN. The route is provided in **Figure 10**.

Existing heavy vehicle access to the Port is via Elizabeth Street, Parker Street and Darling Street.



Figure 10 Key road network Source: SLR

6.5.2 Impact Assessment

The importing and exporting of all materials other than the containerised cement is to be undertaken by train and ship respectively. Transportation of the containerised cement is to be undertaken by train and heavy vehicles. As discussed above, ship and train movements are subject to separate approvals (therefore an assessment is not required as part of this Proposal).

The Traffic Impact Assessment notes the Proposal in total proposes an increase in 20 heavy vehicle movements per day (10 in and 10 out) for the importation of containerised cement. This equates to up to 4 movements (2 in / 2 out) per hour. These heavy vehicles will drop off containerised cement and leave the Site, long term parking (with the exception of unloading and loading) is not intended to be undertaken. The Site includes suitable access and loading areas to accommodate the proposed heavy vehicles.

No addition of operational staff would be required for the Proposal As staff work on a shift basis no additional parking is proposed. Therefore, the Proposal has a low potential to result in a traffic and transport impacts. No

queuing impacts are expected given the capacity of the existing internal road network and existing car parking on site.

6.5.3 Mitigation Measures

Traffic is to be managed under the existing Operational Management Plan which, would be updated to take into account of the Proposal.

6.6 Other Impacts of the Development

An assessment of the other impacts of the Proposal have been undertaken by the relevant specialist consultants and are appended to this SEE as set out in **Table 13** below.

Consideration	Summary
Surface Water	Surface water is captured on-site and managed via the existing surface water management system in accordance with the EPL. Surface water management, including connection to the existing stormwater system and approach to discharge would be undertaken as part of the Complying Development works for the shed extension.
	No concentrate or mineral sands would be stored (unless containerised) outside of the buildings. The cement storage proposed will be entirely containerised and sealed. In summary, the works are not considered to generate any water quality impacts, albeit all water is captured initially in onsite sumps or retention tanks to facilitate settling of solids prior to treatment in HumeCeptors and finally discharge offsite.
Contamination	The Site is currently utilised for industrial purposes. No construction is proposed. As no construction works are proposed and the Proposal only seeks for the transfer and storage of concentrates and containerised cement, The Proposal will not impact contamination on the Site.
Biodiversity	Biodiversity on the Site is limited. Two (2) trees are located south of the shed. As no construction works are proposed and the Proposal only seeks for the transfer and storage of concentrates and containerised cement, The Proposal will not impact the existing flora (or fauna) on the Site.
Waste Management	No construction is proposed and therefore the only waste that will be generated will be from the operations which are managed under the existing EMP.
Flooding	No construction works are proposed and therefore no levels of the Site are proposed to change. As a result, the Proposal will not result in any additional flooding impacts.

 Table 13
 Summary of other technical assessments

6.7 Suitability of the Site for the Development

The Site is considered suitable for the Proposal for the following reasons:

- The Site is an established port facility with pre-existing infrastructure. Expansion of operations and capacity on the Site will make use of existing infrastructure and also complement the current operations.
- Under the Transport and Infrastructure SEPP and Newcastle LEP 2012, the Site is zoned SP1 Special Activities. The development meets the objectives of SP1 zoning which is to maximise and accommodate for port facilities including bulk dry storage for shipping; and
- The Proposal will ensure that the Site continues to operate under the PoN Lease Area for port-related and industrial uses.

6.8 Public Interest

The proposed development is in the public interest as the Proposal will enable the expansion of the existing, currently operational site which is strategically positioned on the PoN and contributes to the ongoing support of freight movement.

6.9 Development Contributions

In accordance with Council's 'Section 7.12 Development Contributions Plan' which came into effect from 1 January 2022, no contributions are required for applications determined by Council (or delegate) for development on land within the 'Port of Newcastle Lease Area'. As such, no contributions are applicable.

7.0 Summary of Mitigation Measures

A summary of mitigation measures which have been recommended throughout specialist reports, and will be implemented, in addition to those already established as part of the operations on site, is provided in **Table 14**. It is highlighted that the existing operations are already subject to conditions of approval, as well as an Environment Protection Licence. As such, only new mitigation measures related to the additional impacts arising from the proposal are set out below.

Table 14 Summary of mitigation measures

Mit	igation Measure	Timing	Responsibility
No	se and Vibration		
•	An awareness and understanding of noise issues and the use of quiet work practices will be included in Site inductions for all staff, contractors and visitors to the Site. Specific mention of the following items will be included:	Operation	Aurizon
	 Site specific noise management measures to be followed. 		
	 Locations of nearby noise sensitive receivers. 		
•	The simultaneous use of multiple items of significant noise generating equipment will be avoided wherever possible, scheduling operations so they are used separately rather than concurrently.		
•	The noisiest activities will be scheduled to the least noise sensitive times of the day (i.e. not during the night-time period) where practicable.		
•	Ensure that openings to buildings are closed while noisy works are being undertaken inside.		
•	All machinery and plant used on- Site will be maintained and operated in a proper and efficient manner to minimise noise generation.		
•	Switch off plant and equipment when not in use and avoid excessive idling.		
•	Maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not operational until fully repaired.		
•	Procurement processes for new plant and equipment would be subject to the requirement that the equipment being replaced not lead to any increase in noise levels. Specify maximum allowable noise/sound levels when purchasing equipment. This would enable low noise mobile and fixed plant equipment to be used as part of future operations and continual noise improvement over time.		
•	An awareness of industry developments will be maintained in relation to noise mitigation engineering for individual plant items in order to assess inherent cost and practicality with a view of continuously improving noise performance.		

Hazard and Risk

Refer to Table 12.	Construction	Aurizon
	and	
	operation	

Air Quality

Air quality is to be monitored and maintained under Condition 03 of the EPL to minimise dust	Operation	Aurizon
emissions.		

8.0 Conclusion

This Statement of Environmental Effects has been prepared to consider the environmental, social and economic impacts of the proposed development application for the Site at the PoN.

In light of the environmental assessment provided within the report, it is considered that the environmental impacts associated with the proposed increase in storage of zinc, copper, lead, additional mineral sands and containerised cement can be appropriately managed with the existing mitigation and management measures currently applicable to the operations on site and within the Environmental Protection License.

Appendix A. Department of Planning and Environment and NSW Environmental Protection Authority Comments

Matter for consideration	Relevant SEE Section	
Department of Planning and Environment		
Description of proposal		
 an accurate history of the site, including development consents or complying development certificates (CDC) relied upon and the relationship between the development and any Environment Protection Licences, existing or required 	Sections 1.0, 2.0 & 5.0	
 the need and justification for the proposed development 		
 alternatives considered including a description of feasible options within the development which may include a layout options analysis 		
likely staging of the development		
 likely interactions between the development and existing, approved and proposed operations at the site and in the vicinity of the site 		
 details of how the materials will be stored in the warehouse 		
 clear details of current storage limits/capacity and those proposed 		
 discussion on how all aspects of the existing and future operations will operate demonstrating the linked consent or planning approval pathway. In this regard, consideration should be given to surrendering existing planning approvals and operating under a single, modern development consent, should this development application be approved. 		
Stakeholder engagement	1	
 meaningful and documented consultation with City of Newcastle Council, the PoN and Environment Protection Authority as part of the preparation of the SEE. 	Section 2.0	
 details of how any issues raised during consultation have been addressed. 		
Traffic and transport	1	
 details of all daily and peak traffic volumes likely to be generated during operation, including a description of key access, vehicle types and potential queuing impacts. 	Section 5.0	
 plans demonstrating how all vehicles likely to be generated during operation can be accommodated on the site to avoid queuing in the street network. 		
Marine and rail movements	1	
 relationship between the development and train and vessel movements, including any changes required to frequency or vessel/train size and approval details that these movements operate under. 	Section 5.0	
Noise and vibration	1	
 a quantitative noise impact assessment undertaken by a suitably qualified acoustic consultant in accordance with the relevant Environment Protection Authority guidelines and Australian Standards which includes: 	Section 6.0	

Matter for consideration	Relevant SEE Section
 identification of impacts associated with site emission and traffic generation at noise affected sensitive receivers, including sleep disturbance impacts 	
 details of noise monitoring survey, background noise levels and noise emission levels of proposed activities 	
 consideration of annoying characteristics of noise and prevailing meteorological conditions in the study area 	
 the cumulative impacts of the development and all current operations of the site 	
 details and analysis of the effectiveness of proposed management and mitigation measures to adequately manage identified impacts, including a clear identification of residual noise following application of these measures and details of any proposed compliance monitoring programs. 	
Hazard and Risk	
 a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (Department of Planning (DoP), 2011), that includes: 	Section 6.0
 a clear indication of class, storage and handling quantities and location of all dangerous goods and hazardous materials associated with the development 	
 a Preliminary Hazard Analysis prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011), should the preliminary risk screening indicate that the project is "potentially hazardous". 	
Air quality	
 details on existing air quality impacts caused by existing operations, including how emissions are managed and how the expansion of the facility and addition of sand storage may impact on this, paying special attention to the materials being loaded and unloaded from the warehouse. 	Section 6.0
Planning agreement/development contributions	
 demonstration that satisfactory arrangements have been or would be made to provide, or contribute to the provision of, necessary local and regional infrastructure required to support the modification. 	Section 6.0
NSW Environmental Protection Authority	
The NSW EPA recommended, at a minimum, the following matters be addressed and discussed in the SEE:	
• A revised premises plan showing the proposed boundary of the extended facility and all air and water discharge points.	Not considered necessary (as no construction included in this change of use proposal).
• The effectiveness of the air and water pollution controls to handle both the increase in material handling and the inclusion of mineral sands in the handling process. This should include train unloading, transfers, storage and ship loading pollution controls.	Section 6.0
Confirmation of the storage capacity proposed.	Section 5.0
Confirmation of the total loaded and unloaded capacity proposed.	Section 5.0
Identification of any changes to stormwater paths and discharges.	No changes proposed.