Modification to expand wharf area (DA 8137)

Statement of environmental effects

Port of Newcastle Operations Pty Ltd

27 April 2023

→ **The Power of Commitment**

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Abbreviations

Term	Definition
AEP	Annual Exceedance Probability
CEMP	Construction Environmental Management Plan
CLM Act	*Contaminated Land Management Act 1997* (NSW)
CSMP	Contaminated Site Management Plan
DPE	NSW Department of Planning and Environment
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EPA	NSW Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation* (Commonwealth)
EPL	Environment Protection Licence
HDC	Hunter Development Corporation
LEP	Local Environmental Plan
LHRS	Lower Hunter Regional Strategy
MCP	Mayfield Concept Plan
NCC	Newcastle City Council
NCIG	Newcastle Coal Infrastructure Group
NES	National Environmental Significance
NPC	Newcastle Port Corporation (former)
OEH	Former NSW Office of Environment and Heritage (now part of DPE)
OEMP	Operational Environmental Management Plan
OSOM	Oversize and/or Over mass
PMF	Probable Maximum Flood
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
PON	Port of Newcastle Operations Pty Ltd
SEE	Statement of Environmental Effects
SEPP	State Environmental Planning Policy
SMS	Stormwater Management Strategy
TEU	Twenty-Foot Equivalent Unit
TfNSW	Transport for NSW
VOC	Volatile organic compounds

Executive summary

This Statement of Environmental Factors (SEE) has been prepared by GHD Pty Ltd (GHD) on behalf of the Port of Newcastle Operations Pty Ltd (PON) to support an application to modify the existing consent (DA 8137) to allow for the expansion of the permitted area (the Proposal) for the operation of the open-air cargo storage facility on part of the former BHP steelworks site at Mayfield, New. South Wales (NSW).

The Mayfield cargo storage facility provides for the storage of a range of freight and cargo including, but not limited to; wind turbine components, large industrial and mining components, luxury boats, electrical transformers and related machinery, general cargo such as farm machinery, excavators and construction machinery, breakbulk (e.g. steel or timber products) and containerised cargo.

The original development consent (DA 8137) approved the use of the existing hardstand area for port-facilities for the unloading, storage and transportation of freight on the site. The Mayfield Cargo Storage Area forms part of the Mayfield Concept Plan Area. Modification 1, approved in June 2020, allowed for the loading and unloading area of the Mayfield Cargo Storage Facility to be expanded from 12 hectares to 18.6 hectares, and includes provision for the loading and unloading of freight from the site.

This proposed modification seeks to amend conditions B9 and B10 associated with Modification 1 to permit operation to occur on the already remediated portions of the site following Site Auditor approval. PON proposes that the currently uncapped area will remain un-remediated until it is more economic for the Proponent to remove the legacy BHP6 Berth and remediate the uncapped area. The Proponent is clarifying a proposed timing for capping the ‘uncapped area’ as a separate exercise. These proposed modifications are required due to growth in the capacity requirements for the PON’s freight storage needs.

The proposed modification is consistent with the previously approved Mayfield Concept Approval (09_0096), the approved development consent (DA 8137) and subsequent modifications. The hours of operation, staffing requirements, and services and utilities proposed remain the same as per the original development consent. Accordingly, any environmental effects from the proposed modification are likely to be negligible to minor.

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1. Introduction

This Statement of Environmental Factors (SEE) has been prepared by GHD Pty Ltd (GHD) on behalf of the Port of Newcastle Operations Pty Ltd (PON) to support an application to modify the existing consent (DA 8137) to allow for the expansion of the permitted area (the Proposal) for the operation of the open-air cargo storage facility on part of the former BHP steelworks site at Mayfield, New South Wales (NSW). The location of the Port of Newcastle is identified in Figure 1.1.

The Mayfield cargo storage facility provides for the storage of a range of freight and cargo including, but not limited to; wind turbine components, large industrial and mining components, luxury boats, electrical transformers and related machinery, general cargo such as farm machinery, excavators and construction machinery, breakbulk (e.g. steel or timber products) and containerised cargo. The location of the Mayfield cargo storage facility approved under DA 8137 is identified in Figure 1.2.

The original development consent (DA 8137) approved the use of the existing hardstand area for port-facilities for the unloading, storage and transportation of freight on the site. The development consent was subject to a number of operational conditions, which included noise limits, safety measures and traffic management. These required the preparation of an Operational Environmental Management Plan (OEMP) to manage these conditions. The Mayfield Cargo Storage Area forms part of the Mayfield Concept Plan Area.

Modification 1, approved in June 2020, allowed for the loading and unloading area of the Mayfield Cargo Storage Facility to be expanded from 12 hectares to 18.6 hectares, and includes provision for the loading and unloading of freight from the site.

Modification 1 included two new conditions:

– B9: Prior to the occupation and operation of the additional 6.6 hectares of loading/unloading area approved under DA 8137 MOD 1 the land is to be remediated in accordance with the requirements of Development Application 293-08-00 and Voluntary Remediation Agreement 26025.
– B10: Upon completion of the remediation works required under condition B9 and prior to the use of that land, the Applicant must submit to the Planning Secretary, a Site Audit Report and a Section B Site Audit Statement, prepared in accordance with the NSW Contaminated Land Management – Guidelines for the NSW Site Auditor Scheme 2017, which demonstrates the site is suitable for its intended industrial use.

This proposed modification seeks to amend these existing conditions associated with Modification 1 to permit operation to occur on the already remediated portions of the site following Site Auditor approval. PON proposes that the currently uncapped area will remain un-remediated until it is more economic for the Proponent to remove the legacy BHP6 Berth and remediate the uncapped area. The Proponent is clarifying a proposed timing for capping the ‘uncapped area’ as a separate exercise. These proposed modifications are required due to growth in the capacity requirements for the port’s freight storage needs.

The proposed modification is consistent with the previously approved Mayfield Concept Approval (09_0096), the approved development consent (DA 8137) and subsequent modifications. The hours of operation, staffing requirements, and services and utilities proposed remain the same as per the original development consent. Accordingly, any environmental effects from the proposed modification are likely to be negligible to minor.

1.1 The Proponent

The Port of Newcastle is managed and developed by Port of Newcastle Investments (trading as PON) under a 98-year lease from the NSW Government which commenced on 30 May 2014. PON is responsible for various port functions including:

– Vessel scheduling
– Trade development
– Cruise ships
– Dredging and survey, wharf and berth services
– Planning and environmental management
– Property management, port development and maintenance of major port assets

PON shareholders are The Infrastructure Fund and China Merchants Group, each owning 50%. These shareholders have a strong, global track record in managing large infrastructure assets. PON is committed to the long-term development of the port and works closely with stakeholders and employees to plan and bring to fruition projects such as the Proposal.

The proponent of the Proposal is PON. PON would lease or license the site, or portions of it, to customers who are seeking to store project cargos in accordance with the requirements of PON and the recommendations of this SEE as applicable.

1.2 The Proposal

DA 8137 was issued in 2017 for the use of the existing hardstand area as port facilities for the storage of freight, including the loading and unloading of freight on the site. Full details of the approved project are outlined in the *Statement of Environmental Effects, Cargo Storage Facility* (AECOM, 2016).

Full details of the first modification (MOD 1) for use of the site as a project cargo facility, which was granted on 23 June 2020, are outlined in the *Statement of Environmental Effects Consent Modification, Cargo Storage Facility* (Aurecon, 2019).

PON is now seeking to further modify DA 8137 to allow for a variation of the designation of areas within the approved DA Boundary to increase the cargo storage area given that the Koppers gantry has been removed and confirmed suitable for cargo storage by the Site Auditor.

The Proponent proposes that the uncapped area will continue to remain un-remediated until it is more economic for PON to remove the legacy BHP6 Berth and remediate the uncapped area. PON is clarifying a proposed timing for capping the 'uncapped area' as a separate approval process.

These changes to DA 8137 will form the second modification (MOD 2).

1.3 Purpose of this report

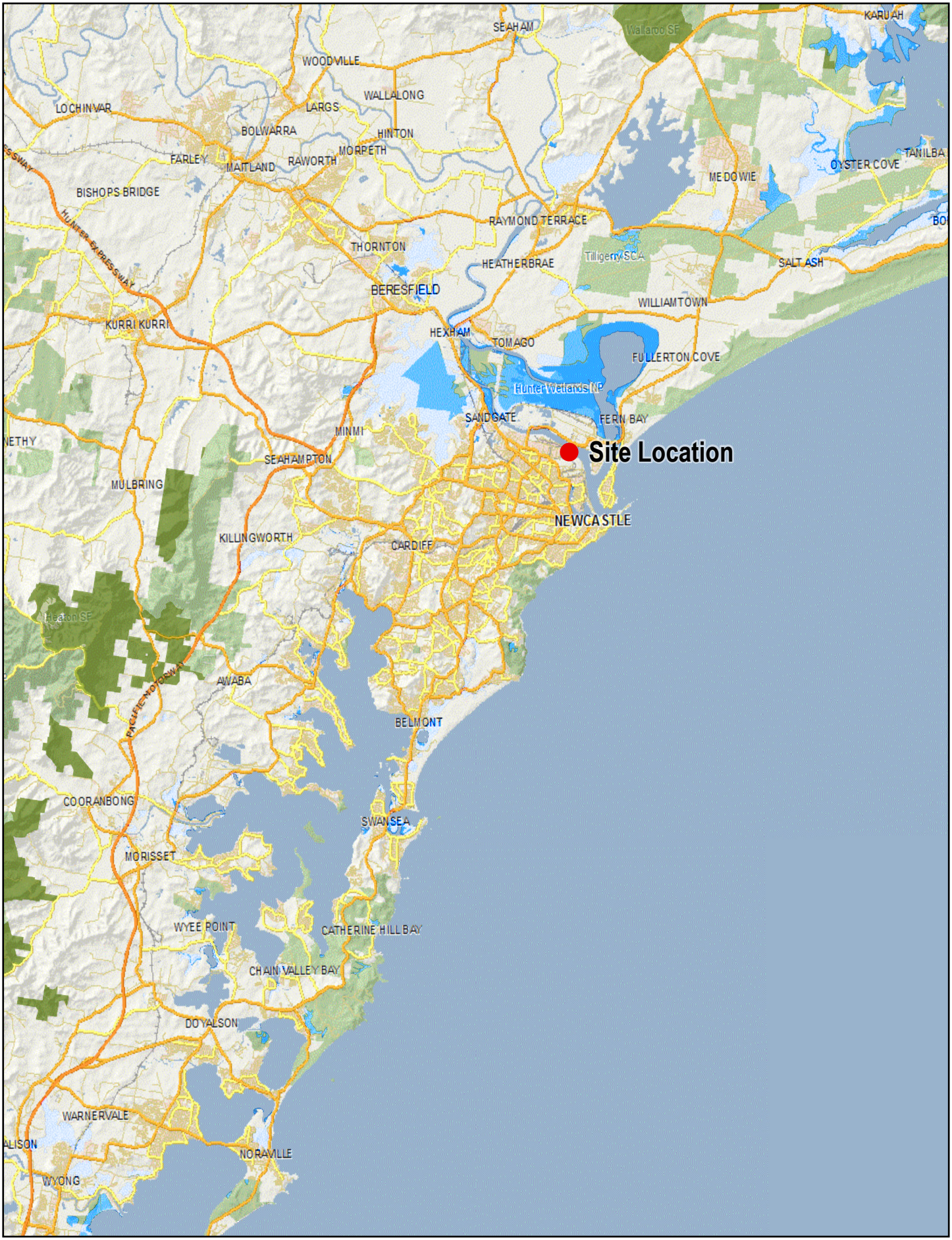
This SEE has been prepared to support the proposed modification to DA 8137 (MOD 2) for the expansion of the open-air cargo area.

The Proposal activities are anticipated to have minimal environmental impact and as such a modification under the provisions of section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) is being pursued. The SEE has been prepared to address the matters for consideration under section 4.55(1A) of the EP&A Act and has considered the provisions of other relevant legislation and environmental planning instruments. It assesses the potential environmental impacts of the Proposal and recommends mitigation measures to minimise impacts and protect the environment where possible.

This SEE considers the environmental impacts associated with the proposed expansion in size of the wharf area under the proposed modification to DA 8137.

The SEE is structured as follows:

– Section 1 – provides an introduction to the REF
– Section 2 – locates the site and provides information on the existing environment of the Proposal site and surrounds
– Section 3 – describes the proposed development
– Section 4 – assesses the project against the requirements of relevant legislation and environmental planning instruments
– Section 5 – provides an assessment of the consultation conducted in relation to the proposed modification
– Section 6 – describes the prioritisation of issues relating to the Proposal
– Section 7 – provides the environmental impact assessment of activities relating to the Proposal
– Section 8 – summarises mitigation measures suggested for the Proposal
– Section 9 – provides a conclusion to the SEE



Paper Size ISO A4

0 5 10

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

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GHD

Port of Newcastle
Proposed expansion of wharf area

Regional context

Project No. **12579523**
Revision No. **-**
Date **5/9/2022**

FIGURE 1.1

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Data source: OEHBasemap2: CoastalManagementSEPP_20181217: . Created by: asharma4

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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

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Port of Newcastle
Approved open storage area under DA 8137

Project No. **12579523**
Revision No. **-**

Date **5/4/2023**

FIGURE 1.2

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Data source: Metromap Tile Service: DTDB, 2017. Created by: asharma4

1.4 Scope and limitations

This report: has been prepared by GHD for Port of Newcastle Operations Pty Ltd and may only be used and relied on by Port of Newcastle Operations Pty Ltd for the purpose agreed between GHD and Port of Newcastle Operations Pty Ltd as set out in Section 1.3 of this report.

GHD otherwise disclaims responsibility to any person other than Port of Newcastle Operations Pty Ltd arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Proposal area

2.1 Site description

The area for the cargo storage facility is located within the suburb of Mayfield on the south arm of the Hunter River. The existing site falls within part of Lot 54 DP 1229869. The expanded area falls within parts of Lot 51 DP 1229869 (refer to Figure 1.3).

These lots have been leased to PON from its owner the Port of Newcastle Lessor Ministerial Holding Corporation.

This cargo storage area is currently maintained as an existing hardstand area. This hardstand was installed following the completion of remediation works. There are no other built structures or infrastructure within the development site.

The site is zoned SP1 – Special Activities under the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP). The site has direct access to the southern arm of the Hunter River and consists of mostly hardstand land areas. The site is currently being used as a port facility for the storage of freight, including the loading and unloading of freight under an approved development consent for the Mayfield cargo storage facility and temporary use of the land within the proposed expansion area.

Adjoining land uses are generally industrial in nature and support port related activities. The nearest residential area is approximately 800 metres south-west of the site in the suburb of Mayfield East.

2.2 Site history

2.2.1 Steelworks closure and remediation

The BHP Steelworks operated on land with frontage to the south arm of the Hunter River from 1915 to 1999. In July 2002, ownership of that part of the former steelworks site known as the Closure Area was transferred to the NSW Government. In March 2007, the Hunter Development Corporation (HDC) (formerly the Regional Land Management Corporation Pty Ltd) was formed by the NSW Government to manage the day-to-day activities of former BHP land and other Crown lands in the lower Hunter region, including remedial and redevelopment works for the Closure Area site (SKM, 2004).

On 14 June 2001, under former section 21 of the *Contaminated Land Management Act 1997* (CLM Act), the NSW Environment Protection Authority (EPA) declared the Closure Area site to be a remediation site. A Remediation Action Plan was prepared by SKM (2004) to address legacy contamination issues associated with soils and groundwater. Voluntary Remediation Agreement No 26025 for the remediation of the site was issued by the EPA on 30 August 2005. HDC undertook to fulfil these remediation commitments. In March 2008, a Contaminated Site Management Plan (CSMP) for the Closure Area was prepared by HDC. The CSMP provided a common framework to be applied across the whole of the site for the design, implementation, completion, use and maintenance of remediation and project works. HDC completed the remediation works in two stages between 2008 and 2011. Following the completion of the remediation works, the site was capped and returned to a hardstand area with minimal infrastructure in anticipation of future development for port and related industries.

Following a handover in ownership to the former Newcastle Port Corporation (NPC), a Concept Plan application for the future strategic development of the former BHP steelworks site was approved by the Minister for Planning in July 2012. The Concept Plan Approval (09_0096) made provision for the future development of part of the former BHP Steelworks site for a range of industrial and port related uses.

2.2.2 Mayfield Concept Plan

Concept Plan (MP09_0096) was approved by the Minister under then section 75M of the EP&A Act on 16 July 2012 to enable development within the remediated portion of the Closure Area. The MCP area covers 90 hectares of port-side land to be developed for land-based port facilities serving a mix of cargo types. The Concept Plan also includes supporting road and rail infrastructure to service the port facilities.

2.2.3 Adjoining development

The Proposal site is surrounded by land which also forms part of the former BHP Steelworks and has been remediated. The surrounding land uses are described below.

To the immediate north of the Proposal site and running parallel with the northern boundary, is where the Koppers pipe gantry was located prior to its removal. It provided a pipeline connection between BHP Berth No 6 and the Koppers facility (located approximately 1 kilometre to the west). Beyond the previous location of the Koppers gantry there is an additional 70 metres of hardstand beyond which lies the south arm of the Hunter River. The Hunter River is approximately 400 metres wide in this location. On the opposite side of the Hunter River, are the coal loading facilities of the Newcastle Coal Infrastructure Group (NCIG).

To the immediate south of the proposed cargo storage area lies a vacant parcel of land known as the Intertrade Industrial and Intermodal site which is managed by Property NSW. This area is predominately grassed open area with sporadic tree cover. The southern section of the Intertrade site contains a number of buildings that were part of the former BHP Steelworks and are now primarily vacant. Various plans have been proposed for this site however there is currently no known plan for the redevelopment of this area.

To the east of the Proposal site lies more open hardstand area that remains vacant following the completion of remediation works as described in Section 2.2.1, and Mayfield Berth No 4 (M4). M4 is located approximately 200 metres to the south-east of the proposed cargo storage area. M4 is a general-purpose common user berth, is 265 metres in length and has an adjoining hardstand area on 10,000 square-metres. It is expected the large cargos being stored as part of the Proposal would be predominantly imported through M4. M4 operates in accordance with development consent DA 293-08-00, as modified; and Environmental Protection Licence 13181 for shipping in bulk

To the west of the Proposal site lies the Stolthaven Bulk Fuel terminal which currently stores approximately 130 megalitres of combustible fuels. Beyond the fuel terminal is the Infrabuild (formerly known as OneSteel) industrial complex.

3. Proposed development

3.1 Overview of the Proposal

The Proponent is seeking a modification to DA 8137 to ensure the ongoing delivery of cargo by ship, temporary storage, handling and onward transport by road, of cargos at Mayfield. Further justification for this Proposal is provided in Section 3.3.

DA 8137 was issued in 2017 for use of the existing hardstand area as port facilities for the storage of freight, including the loading and unloading of freight on the site. Full details of the existing approved project are outlined in the *Statement of Environmental Effects, Cargo Storage Facility* (AECOM, 2016). MOD 1 to DA 8137 was subsequently sought by the Proponent to allow for:

– an increase of the site area to expand the loading and unloading area of the Mayfield cargo storage facility from 12 hectares to 18.6 hectares; and
– to include roll-on/roll-off cargo (RORO) as a permitted cargo type.

Full details of MOD 1 are outlined in the *Statement of Environmental Effects Consent Modification, Cargo Storage Facility* (Aurecon, 2019).

PON is now seeking to modify DA8137 to permit use of the expanded cargo storage area. That activity will require amendment to Conditions B9 and B10 of DA8137. Condition B9 and B10 state that the additional 6.6 hectares of land is only permitted to be occupied and operated on following the remediation of the uncapped land to the satisfaction of the Site Auditor (Site Auditor confirmation to be provided separately by the Proponent). PON proposes that the uncapped area will continue to remain un-remediated until it is more economic for the Proponent to remove the legacy BHP6 Berth and remediate the uncapped area. Figure 3.1 shows the proposed areas to be used and the remaining uncapped area. The Proponent is clarifying a proposed timing for capping the 'uncapped area' as a separate exercise.

To facilitate this outcome, PON proposes the following modified text to the Minister's instrument of consent for DA 8137:

Contamination

B9 *That area of Lot 54 DP1229869 identified in red in Figure 3 of the Statement of Environmental Effects prepared by GHD Pty Ltd dated [date] approved under DA 8137 MOD 2, and any part of that Lot within 20m of the area marked red (**Excluded Area**) must not be used for the storage of any cargo until such time as it has been remediated in accordance with the requirements of Development Application 293-08-00 and Voluntary Remediation Agreement 26025. Prior to the use of the remainder of the loading / unloading area approved under DA 8137 MOD 1, the Excluded Area must be surveyed and a security fence with a locked gate erected on the boundary of the Excluded Area. A prominent sign must be placed and maintained on the security fence stating that the Excluded Area is not approved for the storage of cargo.*

B10 *Upon completion of the remediation works required under condition B9 and prior to the use of the Excluded Area, the Applicant must submit to the Planning Secretary, a Site Audit Report and a Section B Site Audit Statement, prepared in accordance with the NSW Contaminated Land Management – Guidelines for the NSW Site Auditor Scheme 2017, which demonstrates that the Excluded Area is suitable for its intended industrial use.*

These proposed changes to DA 8137 will form MOD 2.

3.2 Proposed site operations

This section describes how the approved project and proposed modification would operate.

3.2.1 Site layout

The Proposal site is located within the larger PON landholdings. The Proposal site is situated in the Port of Newcastle lease area within the industrial suburb of Mayfield North, approximately 7 kilometres north-west of the Newcastle central business district. PON currently operates 20 berths and has total land holdings of 792 hectares, including 200 hectares of vacant port land.

The Proposal site has direct access to the southern arm of the Hunter River and consists of mostly hardstand land areas. The Proposal site is currently being used as a port facility for the storage of freight, including the loading and unloading of freight on the Proposal site.

The Proposal site would generally remain in its current state (existing hardstand) while used for the storage of cargos. While the entire area has been nominated for potential storage of cargos, customers may lease or licence smaller portions of the site as required by the type of cargos being transferred. While the final layout of the Proposal site would be subject to individual tenant requirements, a typical cargo storage operation would indicatively include:

– Jersey (concrete) barriers or similar used to define the Proposal site and assist in the management of vehicle and plant movement. Individual tenants may utilise mobile lighting and security fencing around the perimeter of the Proposal site (or portion of the Proposal site in use) as required by individual security requirements. Security fencing would generally be temporary fencing erected for the period that cargos are stored. A vehicular access point would be provided at the eastern end of the Proposal site to provide direct access to M4 and the internal road network.
– Amenities building. If an amenities building is required it would be placed near the Proposal site entrance. Associated staff amenities may include portable toilets. Electricity would be provided to any amenities buildings with onsite generators.
– Light vehicle parking for staff would be provided adjoining the amenities building. The size and layout of light vehicle parking area would be subject to the specific requirements of each tenant.

The Proposal site layout allows trucks to exit Industrial Drive onto George Street, then Selwyn Street, enter the Proposal site for loading and leave in a forward direction via the same route. Trucks may also enter and exit the Proposal site from the West along Steelworks Road, subject to approval of that arrangement in any Operational Environmental Management Plan for the site. Figure 3.1 shows the proposed expansion of the cargo storage area.

3.2.2 Typical operation

The following descriptions provide a summary of the process involved in a tenant obtaining approval from the Proponent to operate from the Proposal site:

– The Proponent is contacted by a potential tenant who requires portside land for the storage of project cargos following their unloading from ships, or prior to being loaded to ships for export.
– The Proponent and tenant enter into a lease or licence agreement for the use of the cargo storage area.
– Tenants provide specific details of:
    - The required storage area (note not all tenants would use the entire storage area. This would be dependent on the size and nature of the cargos).
    - The dates, times and duration which the tenants would require the storage area.
    - Details of the proposed layout and use of the cargo area such as required barriers, security fencing, temporary/demountable buildings, staff amenities, parking, lighting.
– Tenants satisfy the Proponent’s lease or licence conditions and other requirements including the environmental management arrangements as detailed in this SEE and as required by the Mayfield Concept Plan conditions of approval where applicable.

Paper Size ISO A4

0 25 50 75 100

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

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Port of Newcastle
Approved expanded open cargo storage area - MOD 1

Project No. **12579523**
Revision No. **-**
Date **5/4/2023**

FIGURE1.3

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Data source: Metromap Tile Service: DCDB, 2018. Created by: asharma4

3.2.2.1 Project cargo

The Cargo Storage Area is related to the M4 Berth and hardstand area as cargo being stored in the Proposal site is, and would continue to be imported or possibly exported, through M4. Project cargos include, but are not limited to:

– Project cargo (wind turbines, heavy plant and machinery, transformers, mining equipment and rail wagons)
– Break bulk (inert materials such as steel, aluminium and grinding media)
– General freight in containers
– Bulk cargos such as sand or cement transferred directly from ship to transport with no uncontained ground storage
– Ammonium nitrate in flexible intermediate bulk containers (FIBC) or Twenty-foot Equivalent Unit (TEU) shipping containers. Note: this will not be stored in the Cargo Storage Area.

For clarity, the following cargoes generally fall outside of the types of cargo that could be stored at the Proposal site. The Proponent does not propose to use the site for the storage of:

– Bulk commodities (e.g. coal)
– Bulk liquids

The Proposal does not propose to use the storage area for any cargos classified as dangerous or hazardous under the Australian Dangerous Goods Code.

3.2.3 Staffing and equipment

The total number of staff that may be required onsite at any given time would vary based on the tenant. The indicative staff numbers detailed in Table 3.1 would continue to be required during the various stages of cargo storage and transfer.

Table 3.1 Indicative staff and equipment requirements

Proposal Stage	Staff
Cargo transfer (transfer of cargos from M4 or other berths to the site)	– 5 x truck drivers (for transfer of cargo to the site. – 6 x staff to manage loading and unloading of trucks/vehicles (reach stacker, boom lift or similar) – 2 x forklift operators – 1 x supervisor (light vehicle) – 1 x security (light vehicle)
Cargo storage	– 1 x security
Cargo transport (loading of trucks for transport of cargos from the site to their destination	– 1 x truck driver – 2 x forklift operators – 1 x supervisor – 1 x security

As detailed in Table 3.1**,** up to fifteen personnel may be required onsite during operation. Staffing requirements peak around key events such as the arrival of a ship. Additional staff are required during ship unloading to allow for efficient unloading and to minimise time at berth. When the cargo is in storage a single security person would be required to monitor the cargo storage area. During cargo transport it is anticipated that trucks would enter the Proposal site on a staggered basis for loading and then onward transport, accordingly fewer staff would likely be required onsite.

In addition to the mobile plant listed in Table 3.1, other equipment may also be required by PON tenants including:

– Mobile lighting (day makers) for night works
– Demountable or portable amenities or office building/shed
– Portable generators
– Portable toilets
– Lockable storage units for example a shipping container

3.2.4 Operating hours

The cargo storage facility currently operates 24 hour per day 7 days per week. The proposed modification would not change this arrangement. This is necessary to allow the movement of large loads to be undertaken during night-time hours as may be required by large load permits from Transport for NSW (TfNSW). These hours are consistent with the hours anticipated for future operations as part of the MCP, as well as the hours of operation of M4.

3.2.5 Transport and access

The existing transport and access arrangements pertaining to the Proposal site are as follows:

– The southern portion of the MCP area in which the Proposal area is situated, is accessed via Selwyn Street which intersects at a signalised four-way intersection with Industrial Drive via George Street.
– Selwyn Street is owned and maintained by Newcastle City Council.
– From the eastern end of Selwyn Street PON operates an internal access road which provides access to M4 and the general Proposal area.
– Currently, traffic on the internal PON access road and Selwyn Street is limited to traffic as may be generated from time to time by ships dropping cargo at M4.
– Vehicles accessing the PWCS operations at the Carrington Berths can also do so via Selwyn Street.

Transport routes are established under the Operational Environmental Management Plan required under conditions 4.4 to 4.7 of DA 293_08_00. The proposed reallocation of a proportion of the traffic approved under DA8137 to enter and exit the site to the west will be the subject of an amendment to the OEMP. This shortcut involves traffic by Infrabuild exiting the cargo storage area, traveling down PON's Bulk Precinct Road, and then traveling an additional short distance on Steelworks Road to the Infrabuild facility only.

3.2.6 Services

No service or utility connections are proposed as part of the Proposal. The site would remain as an open hardstand storage area. Should any tenants require power for demountable amenity buildings, lighting or other facilities, this would be provided by generators. Similarly, any communications would be wireless as there are no established communications currently connected to the Proposal site. No water or wastewater connections are proposed. If temporary amenities are required these will be supplied by tanked water brought to the Proposal site with wastewater held in temporary facilities (portable toilets) for subsequent removal by a licenced waste contractor.

As there would be no connections to any utilities or services as part of this Proposal, no further consideration of the MCP *Utilities Infrastructure Plan* (AECOM, 2015) is required.

3.3 Need for the Proposal

The modification to DA 8137 seeks an expansion to the current size of the cargo hardstand area on the basis of being able to meet the demand for future cargo imports in a more efficient manner.

Restricting such operations to their current size would hinder the Proponent's ability to meet the demand for the future importation of large project cargos, such as windfarm components, which form an important economic driver for NSW. Accordingly, it is important that this facility can manage this demand.

The extended project cargo storage area is required to service the strong pipeline of projects, particularly in the renewables energy sector. There are at least 20 onshore wind farm projects in the development pipeline and with 14 of these located in Northern NSW there is expected to be a continual flow of projects through Port of Newcastle over the next 5-10 years. With the turbine blades getting longer (now about 80 metres compared to about 45 metres less than a decade ago) the Port has also demonstrated that it is a viable alternative to Port Kembla for the projects in Southern NSW with the developers of Collector Wind Farm and Rye Park Wind farm choosing to bring the components through the Port of Newcastle. The Mayfield Cargo Storage area has been key to securing these projects, along with the direct and unimpeded access to the major road network. The Proposal supports the aims and objectives of the NSW Climate Change Policy Frameworks in this respect as outlined in Section 4.3.3.

As NSW transitions to renewables the Port requires the extended storage area to minimise the risk of not being able to service the projects on time as they move to development. In addition to offshore wind projects, the Port is also fielding enquiries for storage space for solar projects, the Snowy Hydro Kurri Kurri gas plant, the ARTC Inland Rail project, the TfNSW Western Harbour Tunnel project and many other key infrastructure projects. Projecting forward, the offshore wind sector will also require significant storage area near the Port as those key projects progress.

Beyond the windfarm industry, the increasing demand in NSW for large cargos is also driven by:

– Ongoing operation of the mining sector particularly in the Hunter region
– Increase in large infrastructure projects in NSW including road and rail projects in Sydney and the Hunter region

To facilitate this demand, portside facilities such as the Proposal site, are required for the temporary storage of such cargos. These facilities require the following characteristics:

– Access to a deep-water channel and berth
– Access to a berth with landside design capacities to manage large and heavy loads
– Available land adjoining the berth for use as a laydown area
– Connection to the arterial road network to enable land transportation

The Mayfield location can satisfy all of these needs. It is accordingly ideally suited for the land side storage and management of project cargos. This further supports the expansion of this Proposal.

Additionally, the Proposal is requesting additional storage space based on the Koppers gantry area being remediated. Koppers ceased using the BHP6 berth and removed their gantry along the water and remediated the ground. A Site Auditor statement about the remediated area and its suitability for cargo storage is being arranged. The Site Auditor will also be requested to confirm that the buffer about the 'uncapped area' is an appropriate distance. The 'uncapped area' has not been remediated to date because to remediate the area requires the removal of the legacy BHP6 berth. This is very expensive and best justified in the context of a larger project. The larger project has not proceeded as originally scheduled due to the implications of the ACCC litigation relating to the Port Commitment Deed.

Additionally, there is no change to the type of cargo that will be placed in the additional area or any change to the type of activities currently being undertaken. For these reasons, the Proposal is substantively consistent with current approvals.

3.4 Consideration of alternatives

Various industries such as the construction and mining industry are often required to import or export large pieces of equipment or machinery such as that described in Section 3.2.2.1. To facilitate this, portside facilities such as the Proposal site, are required for the temporary storage of such cargos. These facilities require the following characteristics:

– Access to a deep-water channel and berth
– Access to a berth with landside design capacities to manage large and heavy loads
– Available land adjoining the berth for use as a laydown area
– Connection to the arterial road network to enable land transportation

The Mayfield location is able to satisfy all of these needs. It is accordingly ideally suited for the land side storage and management of project cargo.

3.4.1 Alternative ports

Potential alternative ports for the temporary storage of the proposed project cargos include:

– Sydney (Port Jackson or Port Botany)
– Port Kembla
– Port of Brisbane

These ports are not considered to provide appropriate alternatives to the Proposal for the following reasons:

– There are land availability constraints due to the large area of land required for the project cargos and the availability of such sites at other ports.
– Transporting project cargos in metropolitan areas would cause issues with needing to transport project cargos through built-up and congested areas.
– Alternatives may be significant distances from end markets leading to potentially leading to increased transport costs.

3.4.2 Alternative sites

Several alternative locations exist in and around the Port of Newcastle which could be used for the establishment of a cargo storage facility, for example at Carrington and on Kooragang Island. However, none of the alternative sites can provide the combination of access to a heavy lift berth and the deep-water channel, access to a significant area of established hardstand and access to key transport routes.

3.4.3 Do nothing

The do-nothing option would see the proposed cargo hardstand area use restricted to the current size permitted under DA 8137. Although activities would be able to continue without this modification, the future efficiency of the cargo storage area would be severely limited. This is because the components related to future windfarm projects are becoming increasingly larger and awkward to handle and store compared to when DA 8137 was originally approved. To improve the efficiency and ease of importing such cargo, it is proposed that the storage area become larger. The ease of dealing with concurrent deliveries would also be improved through the increase in size of the cargo storage area proposed by this modification.

Restricting such operations to their current size would hinder the Proponent's ability to meet the demand for the future importation of project cargos which form an important economic driver for Hunter, NSW and Australian economies. It is important that this facility is able to manage this demand. The modification to DA 8137 accordingly seeks an expansion to the current size of the cargo hardstand area on the basis of being able to meet the demand for future cargo imports in a more efficient manner.

4. Legislation and regulation

4.1 Existing approvals

The existing approvals relating to the Proposal site are as follows:

– DA 8137 was issued in 2017 (including a modification) for use of the existing hardstand area as port facilities for the storage of freight, including the loading and unloading of freight on the site.
– DA 293_ 08_00 was granted in 2001 (including nine modifications) for Stage 1, being the remediation of the Closure Area and the development of a Multi-Purpose Terminal comprising a container terminal and a general cargo handling facility and associated road, rail and wharf infrastructure and dredging of the south arm of the Hunter River. This is a related approval as M4 berth is managed through both DA 8137 and DA 293_08_00.
– Mayfield Concept Approval (MCA) 09_0096 was issued in 2012 (including two modifications) for the redevelopment of 90 hectares of port-side land in Mayfield, for land-based port facilities serving a mix of cargo types. The Concept Plan also includes supporting road and rail infrastructure to service the port facilities.

4.1.1 Previous modifications to DA 8137

DA 8137 was issued in 2017 to use the existing hardstand area as port facilities for the storage of freight, including the loading and unloading of freight on the site. MOD1 was granted on 23 June 2020 to:

– Increase the site area to expand the loading and unloading area of the Mayfield cargo storage facility from 12 hectares to 18.6 hectares.
– Include RORO as a permitted cargo type.

Full details of MOD 1 are outlined in the *Statement of Environmental Effects Consent Modification, Cargo Storage Facility* (Aurecon, 2019).

4.1.2 Previous modifications to DA 293_08_00

DA 293_08_00 works in combination with DA 8137 to allow for the delivery of cargo by ship, temporary storage, handling, and onward transport by road, of cargos at Mayfield for PON. As such, previous modifications to DA 293_08_00 are considered below.

Nine modifications have been granted to DA 293_08_00 including MOD 7 which facilitated alterations to, and the temporary relocation of the General Cargo Handling Facility (GCHF), refurbishment of the existing wharf and a change in site access. The most notable of which was MOD7 as it refurbished M4 berth which is the subject of this SEE. This is discussed in further detail below.

MOD7 was approved on 21 November 2008 for the alterations to, and temporary relocation of, the cargo storage facility, refurbishment of the existing wharf and a change in site access from Crebert Street to Selwyn Street.

This modification involved:

– Refurbishment of the former BHP wharf (now known as M4 berth).
– Construction of approximately 1.2 hectares of hardstand. This includes the wharf apron and 1 hectare of hardstand. The balance of the 8 hectares has not yet been developed.
– Construction of the M4 access road linking the M4 berth and Selwyn Street.

The land adjoining the Proposal site is currently used in accordance with DA293-08-00 MOD7. An application has been made to extend the temporary use of that land permitted under MOD7.

Other modifications to DA 293_08_00 are detailed in Table 4.1.

Table 4.1 Previous modifications to DA293_08_00

Modification	Date Issued	Detail
DA293_08_00 (MOD1)	29 June 2001	Timing of establishment of a Community Consultative Committee
DA293_08_00 (MOD2)	13 August 2001	Excision of heritage areas from the development area
DA293_08_00 (MOD3)	15 February 2002	Protection of fig trees and noise monitoring requirements
DA293_08_00 MOD-77-7-2003(MOD4)	16 September 2003	Burial of Blast Furnace No.1 slag stump
DA293_08_00 MOD-60-4-2005 (MOD5)	15 September 2005	Land description, soil capping, hours of operation, groundwater management, stormwater, capping exemptions and transport infrastructure
DA293_08_00 MOD-64-7-2007-1 (MOD6)	21 August 2007	Alteration of the alignment of the railway lines and relocation of two major stormwater drainage lines
DA293_08_00 MOD-56-7-2008-1 (MOD7)	21 November 2008	Alterations to, and temporary relocation of the GCHF, refurbishment of the existing wharf and a change in site access from Crebert Street to Selwyn Street
DA293_08_00 MOD-06-02-2009 (MOD8)	30 March 2009	Minor change to the rail line layout
DA293_08_00 (MOD9)	29 August 2013	Noise limits applying to the operation of the MPT at specific locations

No additional development of the Proposal site has occurred under DA 293_08_00. Some minor maintenance works have been carried out.

4.2 Local plan

4.2.1 Newcastle Local Environmental Plan 2012

The Proposal site is located within the Newcastle local government area which is generally subject to the provisions of the *Newcastle Local Environmental Plan 2012* (LEP 2012). However, the Proposal site is located within the Port of Newcastle Lease Area, as detailed in *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP). As the Transport and Infrastructure SEPP applies to the port area (refer to Section 4.4.2) the LEP 2012 does not apply to the Proposal and no further consideration of the LEP 2012 is required. Subsequently no further consideration of the Newcastle Development Control Plan 2012 is required.

4.3 Strategic context

4.3.1 Port Master Plan 2040

The Port Master Plan 2040 is a strategic blueprint for the region and underlines significant investment opportunities that will support the prosperity and diversification of the Newcastle and Hunter economies into the future.

As a global gateway for New South Wales, PON enjoys significant competitive advantages. It is already a major seaport with connectivity to a world-class national rail and heavy vehicle road system, a shipping channel that is currently only operating at 50% capacity and supported by developable, vacant portside land.

To this end, the PON has embarked on an ambitious diversification strategy. Whilst coal exports provide a stable foundation for growth, this Plan is driven by the need to grow and diversify to meet the demands of customers and the containerisation of some trades.

This Plan is supported by the Proposal as it is aligned with the objectives of growth as well as meeting future demands for imports from emerging sectors such as the windfarm industry.

4.3.2 NSW Freight and Ports Plan 2018-2023

The NSW Freight and Ports Plan 2018-2023 is a call to action for government and industry to collaborate on clear initiatives and targets to make NSW freight task more efficient and safer.

The Plan prioritises:

– Economic Growth
– Efficiency, connectivity and access
– Capacity
– Safety
– Sustainability

The Proposal is strongly aligned with all of these objectives. By expanding the boundaries of the cargo storage facility, its capacity and efficiency are improved. This facilitates economic growth as the Proposal is able to meet the future demands for imports from growing sectors, such as wind energy, which has important implications for sustainability.

4.3.3 NSW Climate Change Policy Framework

The NSW Government has released the NSW Climate Change Policy Framework, which commits NSW to the aspirational objectives of achieving net zero emissions by 2050 and helping NSW to become more resilient to a changing climate.

The policy framework defines the NSW Government's role in reducing carbon emissions and adapting to the impacts of climate change. The Net Zero Plan Stage 1: 2020–2030 (Net Zero Plan) outlines how the NSW Governments climate change objectives will be achieved and is released in stages to enable evolving technologies to be incorporated into future stages and to allow for continual improvement over time with the aim of achieving net zero emissions by 2050.

Net Zero Plan Stage 1: 2020-2030

The Net Zero Plan outlines four key priorities in regard to emission reductions to 2030. These are:

– Drive uptake of proven emission reduction technologies
– Empower consumers and businesses to make sustainable choices
– Invest in the next wave of emissions reduction innovation
– Ensure the NSW leads by example

Key to achieving the aims of the Net Zero Plan is the continued rollout of renewable energy projects to allow consumers to make sustainable power provider choices to help decarbonise energy production. As one of three global ports in NSW and the one with the most capacity to accommodate project cargo loads such as wind farm components, since the approval of the original project PON has assisted multiple renewable energy project import essential components. The Proposal is consistent with the focus on renewables and the vision of the Net Zero Plan.

4.3.4 Hunter Regional Plan 2041.

The Hunter Regional Plan 2041 was released by DPE to provide a vision to create a leading regional economy with a vibrant city at the heart. The Hunter Regional Plan 2041 provides several directions for growing the regional economy. The Proposal aligns with enhancing global gateways to the Asia-Pacific through providing enhanced import-export capabilities in the port.

The Proposal also represents the use of available portside land for a port related development on a site that is specifically zoned for port related industries, in an existing industrially zoned area. The Proposal is accordingly consistent with the Hunter Regional Plan 2041.

4.3.5 Greater Newcastle Metropolitan Plan 2036

This plan positions Greater Newcastle as being an emerging hub for lifestyle and environmental resilience. Transitioning to a service, creative and knowledge city will better equip Greater Newcastle to be able to adapt to changing global environmental priorities and needs.

Four key priorities have been identified:

– Create a workforce skilled and ready for the new economy
– Enhance environment, amenity and resilience for quality of life
– Deliver housing close to jobs and services
– Improve connections to jobs, services and recreation

The Proposal presents ongoing employment opportunities which is consistent with this Plan. This Proposal also represents economic benefits to Newcastle through the increase in size of the wharf area which is also consistent with this Plan.

4.4 New South Wales legislation

4.4.1 Environmental Planning and Assessment Act 1979

The EP&A Act and Regulation provide the framework for environmental planning in NSW and include provisions to ensure that proposals which have the potential to impact the environment are subject to detailed assessment and provide opportunity for public involvement. This development application would be assessed by DPE under Part 4 of the Act.

The EP&A Act requires a proposed development to be assessed against matters for consideration included in section 4.55(1A). Table 4.2 below summarises the consistency of the proposed modification with section 4.55(1A) of the EP&A Act. Following this table, key matters for consideration will be discussed.

Table 4.2 Summary – compliance with section 4.55 (1A) of the EP&A Act

Matters for consideration	Consistency
(1A) Modifications involving minimal environmental impact. A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:	The proposed modification to the consent is of minimal environmental impact and does not represent a substantial change to the original consent. The Proponent is a person that is legally entitled under the EP&A Act to apply for a modification to the consent.
(a) it is satisfied that the proposed modification is of minimal environmental impact, and	The proposed modification is seeking to expand the boundaries of the existing hardstand area for the storage of cargo and is considered to have a minimal environmental impact. Further details about the environmental impact of this Proposal as well as mitigation measures are provided in Section 7.
(b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and	A qualitative and quantitative assessment has been undertaken to determine whether the development as modified will be substantially the same as the development originally approved. The expanded storage area is a small proportion of the land originally approved for the Cargo Storage Facility and has previously been approved. The environmental assessment confirms that the proposed modification will have minimal environmental impact and there will be no changes to the activities carried out on the Proposal site. On that basis, the proposed modified development will be substantially the same development as the development for which the consent was originally granted.

Matters for consideration	Consistency
(c) it has notified the application in accordance with--	
(i) the regulations, if the regulations so require, or	The Proposal will be conducted in accordance with regulations.
(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and	A development control plan is not relevant to this Proposal (the Transport and Infrastructure SEPP is presently the applicable environmental planning instrument).
(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan as the case may be.	The proponent will respond to any submissions received during the assessment period.

4.4.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

The Transport and Infrastructure SEPP repeals the former *State Environmental Planning Policy (Three Ports) 2013* under which DA 8137 was originally approved. The transfer provisions are as follows:

– Transfer the following provisions of State Environmental Planning Policy (Three Ports) 2013 to this Policy as Chapter 5, Parts 5.1–5.5— (a) Part 1, other than clauses 1, 2, 11(1) and 11A, (b) Part 2, including the Land Use Table, (c) Parts 3–5.

– Renumber the clauses in Chapter 5 as sections with decimal numbering, commencing with section 5.1.

– Transfer State Environmental Planning Policy (Three Ports) 2013, Schedules 1 and 2 to this Policy as Schedules 10 and 11.

The provisions of Chapter 5 of the Transport and Infrastructure SEPP, relating to the Three Ports sites, were further modified on 8 July 2022.

The Proposal is a modification to an existing development consent. The permissibility of this modification will still be considered below to ensure that full compliance with the SEPP is maintained.

Permissibility

Pursuant to the Transport and Infrastructure SEPP the site is zoned SP1 special activities. The objectives of this zone, prohibited development and development permissible with and without consent are defined below:

Zone SP1 Special Activities

1 Objectives of zone

• *To provide for special land uses that are not provided for in other zones.*

• *To provide for sites with special natural characteristics that are not provided for in other zones.*

• *To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land.*

• *To maximise the use of waterfront areas to accommodate port facilities and industrial, maritime industrial, freight and bulk storage premises that benefit from being located close to port facilities.*

• *To enable the efficient movement and operation of commercial shipping and to provide for the efficient handling and distribution of freight from port areas through the provision of transport infrastructure.*

• *To provide for port related facilities and development that support the operations of Port Botany, Port Kembla and the Port of Newcastle.*

• *To facilitate development that by its nature or scale requires separation from residential areas and other sensitive land uses.*

• *To encourage employment opportunities.*

2 Permitted without consent

Jetties; Moorings; Roads

3 Permitted with consent

Capital dredging; Environmental facilities; Environmental protection works; Food and drink premises; Maintenance dredging; Navigation and emergency response facilities; Neighbourhood shops; Port facilities; Wharf or boating facilities; Any other development not specified in item 2 or 4

4 Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Animal boarding or training establishments; Artisan food and drink industries; Camping grounds; Caravan parks; Cemeteries; Centre-based child care facilities; Commercial premises; Community facilities; Correctional centres; Crematoria; Early education and care facilities; Eco-tourist facilities; Educational establishments; Entertainment facilities; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Function centres; Funeral homes; Health services facilities; Highway service centres; Home businesses; Home occupations; Home occupations (sex services); Industrial retail outlets; Mortuaries; Open cut mining; Places of public worship; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Residential accommodation; Respite day care centres; Restricted premises; Rural industries; Sex services premises; Tourist and visitor accommodation; Veterinary hospitals; Wholesale supplies

The Proposal would be of a type characterised as *port facilities,* being "*facilities on land in the Lease Area used in connection with the carrying of freight and persons by water from one port to another for business or commercial purposes, and includes … facilities for the loading or unloading of freight onto or from vessels and freight receival, processing, land transport and storage facilities*". The land use is permissible with consent in the SP1 zone.

The proposed modification would be consistent with the existing site operations. The Proposal is consistent with the objectives of this zoning in that the Proposal will see a continuation of freight handling. In particular, the expansion of the storage area will enable greater use of waterfront areas within the port locality for freight storage and port facilities. In this manner, the Proposal clearly satisfies the objective of the zone to “maximise the use of waterfront areas to accommodate port facilities and industrial, maritime industrial, freight and bulk storage premises that benefit from being located close to port facilities”.

4.4.3 State Environmental Planning Policy (Resilience and Hazards) 2021

State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) repeals the former *State Environmental Planning Policy No 55—Remediation of Land* (SEPP 55).

Contamination

The Resilience and Hazards SEPP provides a state-wide planning approach for the remediation of contaminated land. Clause 7 of the SEPP requires a consent authority to consider whether the land is contaminated and whether it is suitable (or can be made suitable) for the proposed development. A CSMP has been developed for the entire former BHP Steelworks Site, which forms part of the VRA prepared under the *Contaminated Land Management Act 1997*.

The site is subject to the requirement for remediation works outlined within the VRA, including capping, of the area prior to use as a cargo storage area. The proposed modification does not propose any intrusive ground works or activities that would impact the capping.

The Proponent proposes that the uncapped area will continue to remain un-remediated until it is more economic for the Proponent to remove the legacy BHP 6 Berth and remediate the uncapped area. The Proponent will be undertaking the capping of the ‘uncapped area’ as a separate exercise. In order to confirm this approach is suitable PON sought advice from the relevant EPA Site Auditor Fiona Robinson (Accredited Contaminated Site Auditor 1506). Advice from the Site Auditor confirmed that any risks associated with the Proposal proceeding are not significant and no capping work or additional mitigation measures to those in the current CSMP are required in order for the Proposal to proceed. A copy of correspondence from the Site Auditor confirming this is attached at Appendix C.

Hazard Risk

No hazardous or dangerous material as classified by the Australian Dangerous Goods Code are proposed to be stored or transferred as part of the Proposal. The Proposal does not involve a change to the existing activities on the Proposal site. On that basis, further assessment of hazard risk is not required.

Coastal Protection

It is noted that Chapter 2 of the Resilience and Hazards SEPP does not apply in the Lease Area (see clause 2.5).

4.4.4 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) prohibits any person from causing pollution of waters or air and provides for penalties for air, water and noise pollution offences.

Schedule 1 of the POEO Act identifies 'scheduled activities' that are required to be licensed by the Environment Protection Authority (EPA).

PON currently operates M4 in accordance with Environment Protection Licence (EPL) 13181 for the scheduled activity shipping in bulk. Whilst M4 does not form part of the Proposal site, cargo being stored in the Proposal site would likely be imported, or possibly exported, through M4 in accordance with the requirements of EPL 13181. PON may also utilise other berth facilities within the Port of Newcastle for the transfer of cargos.

PON does not propose to undertake any activity as part of this Proposal that:

– Would be classified as a new scheduled activity, or
– Would exceed the scheduled activity thresholds as detailed in EPL 13181

The storage of cargo within the proposed storage area does not represent a scheduled activity under the POEO Act and accordingly no site specific EPL is required by the Proposal. The modification does not trigger the need for an EPL.

4.5 Commonwealth legislation

4.5.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) requires the approval of the Commonwealth Minister Environment and Energy for actions that may have a significant impact on matters of national environmental significance (NES). Approval from the Commonwealth Minister for the Environment is in addition to any approvals under NSW legislation.

The EPBC Act also provides for the identification, conservation and protection of places of national heritage significance and provides for the management of Commonwealth heritage places. The Act also establishes the Australian Heritage Council.

The EPBC Act lists eight matters of NES that must be addressed when assessing the environmental impacts of a proposal. These matters are:

– World heritage properties
– National heritage places
– Ramsar wetlands of international significance
– Threatened species and ecological communities
– Migratory species
– Nuclear actions (including uranium mining)
– Commonwealth marine areas
– Great Barrier Reef Marine Park
– A water resource in relation to coal seam gas development and large coal mining development

Other matters protected under the EPBC Act include the protection of the environment where proposed activities are located on Commonwealth land. The Proposal would not impact on any matters NES matters and is not located on Commonwealth land. Accordingly, no further consideration of the EPBC Act is considered necessary.

4.6 Mayfield Concept Plan Approval 09_0096

The MCP was approved under the former Part 3A (now repealed) of the EP&A Act by the Minister for Planning on 16 July 2012. Clause 3B of Schedule 2 of the *Environmental Planning and Assessment (Savings Transitional and Other Provisions) Regulation 2017* relevantly provides that "*a consent authority must not grant consent under Part 4 for the development unless it is satisfied that the development is generally consistent with the terms of the approval of the concept plan"*. This SEE considers the relevant requirements of the MCP approval, specifically the conditions listed in Table 4.3. The development as modified will be generally consistent with the MCP.

Table 4.3 Relevant Conditions of the Mayfield Concept Plan

Condition	Response
2.1 Under section 75P(2)(c) of the Act, the following environmental assessment requirements apply with respect to future development that is subject to Part 4 (other than complying development) or Part 5 of the Act:	
(c) details of the consultation process and outcomes with relevant stakeholders, including with (but not limited to):	
(i) Government authorities, such as DP&I, OEH, EPA, DPI, Transport for NSW, HDC and Council; (ii) Service and infrastructure providers, such as ARTC, RailCorp, Ausgrid, Hunter Water Corporation and Jemena; (iii) Special interest groups and the public, including adjoining and affected landowners;	Consultation outcomes and details are provided in Section 5.1.1 and Section 5.1.5.
(d) an updated environmental assessment of relevant statutory matters and Issue Specific requirements for construction and operation (including cumulative impacts of existing and approved development on the site and on adjoining sites) and the identification of relevant avoidance, mitigation and management measures to address associated impacts.	An environmental assessment is provided in Section 7. Cumulative impacts and mitigation measures are discussed in Section 7.6 and Section 8 respectively.
(e) a Transport Assessment that assesses the transport, access and traffic impacts from projects associated with this Concept Plan. The assessment shall:	Traffic impacts are discussed in Section 7.1.
(i) Consider the transport limits and objectives of the Concept Plan, including the objective of not exceeding the total truck movement limits identified in requirement 2.3	The proposal is consistent with the limits and objectives of the Concept Plan. The proposed movements do not exceed the total truck movement limits in requirement 2.3. Refer to Section 7.1.3 for further details.
(ii) Consider freight volume forecasts and transport demand	The traffic impact assessment considers freight volume forecasts and transport demand. Refer to Section 7.1.3 for further details.
(iii) Consider the Transport Infrastructure Strategy (if required) and identified infrastructure, service improvements or management measures (if identified)	Infrastructure and service improvements have been considered and mitigation measures proposed in the traffic impact assessment. Refer to Section 7.1.3 for further details.

Condition		Response
(iv)	Consider the traffic performance and functionality of the local, regional and State road network and site access, including the consideration of development within the vicinity of the Concept Plan site (including connecting road networks) and the cumulative impacts from adjoining development	The traffic impact assessment demonstrates that the expansion of the Mayfield Cargo Storage Facility can be accommodated well within the Mayfield Concept Plan truck movement limits. Refer to Section 7.1.3 for further details.
(v)	Consider rail impacts associated with the Proposal, including: network capacity and the availability of rail access and paths, rail operations on the Port Waratah and Bullock Island loops, and rail access and interface agreements	This proposal is unlikely to have any impacts on rail services or infrastructure.
(vi)	Consider the Transport Monitoring and Review results undertaken as a requirement of this approval	PON would continue to undertake reporting as required by the MCP *Traffic Monitoring and Review Plan.*
(vii)	Identify rail and road infrastructure requirements, including those specified in this approval and the corresponding exceptions	The traffic impact assessment demonstrates that the expansion of the Mayfield Cargo Storage Facility is able to be accommodated well within the Mayfield Concept Plan truck movement limits. No additional infrastructure is proposed. Refer to Section 7.1.3 for further details.
(viii)	Identify traffic management measures consistent with the requirements of the Traffic Management Plan required under this approval	Traffic management measures are suggested in Section 7.1.3.
(ix)	Identify rail service and infrastructure changes and upgrades, and initiatives to facilitate an increased rail share of freight movements	This proposal is unlikely to have any impacts on rail services or infrastructure. No service or infrastructure changes are proposed.
(x)	Consider construction traffic routes and associated traffic impacts, including capacity constraints, changes to access and safety impacts, and	No construction activities are proposed beyond the relocation of temporary fencing to the boundaries of the expanded wharf area.
(xi)	Include consideration of relevant road and rail design standards including but not limited to Austroads Guide to Road Design 2009 (with Transport for NSW supplements), Australian Standards, and Newcastle Development Control Plan 2005 – Element 4.11 (Subdivision).	No design activities were carried out as part of this assessment.

5. Consultation

5.1 Consultation during preparation of SEE

5.1.1 Stolthaven

PON consulted Stolthaven on 22 March 2022. Stolthaven raised the comments identified in Table 5.1, which have been addressed in the SEE.

Table 5.1 Issues identified by Stolthaven in consultation during the SEE preparation

Issues identified	Where they are addressed
Number of movements to be clarified	Traffic movements are discussed in Section 7.1.2
Will this affect Stolthaven's approved activities (i.e. will it remain with the cumulative limits under the Mayfield Concept Plan)	Cumulative impacts are discussed in Section 7.6
Commitment around the gate function to ensure the road remains clear and safe	Traffic impacts are discussed in Section 7.1.2
Will the Proposal make the Steelworks Road surface worse	Traffic impacts are discussed in Section 7.1.2

5.1.2 Infrabuild

PON consulted Infrabuild on 13 July 2022. Infrabuild supported the proposal.

5.1.3 Department of Planning and Environment

Preliminary consultation regarding a change in designation of certain areas within the cargo storage area even with the 'uncapped area' not remediated was undertaken by PON by DPE on 4 February 2022. Details of consultation are explored in Table 5.2.

Table 5.2 DPE consultation outcomes

Ref	Action	Where it is addressed in report
Consultation carried out on 4 February 2022		
1	Description of what has changed compared to the original application and why commitment is no longer needed (i.e. a detailed justification).	A detailed justification of the Proposal is provided in Section 3.3.
2	Commitment to no use of uncapped area and to remediate it.	The uncapped area will not be utilised as part of the Proposal.
3	Confirmation of a new commitment on timing in relation to the uncapped area.	Remediation of the uncapped area does not form part of the Proposal. The Proponent will address remediation of this area as part of separate approval processes.
4	Supported by a Site Auditor, confirmation that the Koppers gantry has been removed and that part of the green area remediated and is suitable for cargo storage.	The Koppers gantry has been removed and operational components of the expansion area have been remediated.
5	Confirmation that no inconsistency with existing approvals exists from MOD2.	No contravention to existing approvals is discussed in Section 4.1.
6	Traffic and noise reports confirming minimal impact from the increased storage.	Traffic is discussed in Section 7.1. Noise is discussed in Section 7.2.

5.1.4 Transport for NSW

PON consulted with Transport for NSW in relation to the proposal on 21 July 2022. Transport for NSW supported the proposal.

5.1.5 Environment Protection Authority

PON met with the Environment Protection Authority (EPA) on Thursday 19 May 2022 to discuss the proposed expansion of the cargo storage area under the DA 8137 consent.

The EPA raised no concerns with the proposed expansion of the cargo storage area. Port of Newcastle confirmed that the proposal did not comprise any elements that trigger the need for an environment protection licence under the POEO Act.

5.1.6 City of Newcastle

The Port of Newcastle Operations met with the City of Newcastle on Thursday, 19 May 2022 to discuss the proposed expansion of the cargo storage area under the DA 8137 consent.

The City of Newcastle raised no concerns with the proposed expansion of the cargo storage area. Council enquired into opportunities to improve signage, line marking and lighting in Selwyn Street, which falls outside of the scope of this assessment.

5.1.7 Community liaison group

The Port of Newcastle tabled the M4 berth extension and the lapse date proposal to the Port of Newcastle Community Liaison Group (CLG) on 24 May 2022. The CLG is made of both business and community representatives.

As part of the CLG consultation, several queries were raised by group members in relation to existing consent conditions and permissible activities on the M4 berth and cargo handling facility. The Port of Newcastle responded to the queries and committed to considering traffic and noise impacts in the assessment (this document) of the proposal.

It is also noted that DA 8137 MOD 1 was notified with one submission received from the general public raising concerns on traffic. This issue was considered and addressed in the Department's assessment report.

6. Prioritisation of issues

An assessment of potential environmental impacts associated with the Proposal has been undertaken based on existing data and knowledge of the Proposal site and preliminary desktop investigations. A risk analysis was undertaken to rank these issues according to the level of environmental risk or potential impact to the community. This was then used to inform the appropriate level of impact assessment undertaken in Section 7.

6.1 Risk matrix

Potential impacts are ranked according to the risk matrix (refer to Table 6.1) as being High, Medium, Low or Very Low (negligible) risk to the environment. This risk assessment has been undertaken by undertaking a high-level review of the potential unmitigated impacts of the Proposal, therefore likelihood of occurrence and the consequences if they occurred. This rating is then used to determine the level of assessment for each environmental aspect.

Potential consequences:

1. Broad scale environmental impact
2. Regional environmental impact
3. Local environmental impact
4. Minor environmental impact
5. Insignificant environmental impact

Likelihood of adverse impact:

A. Almost certain
B. Likely
C. Possible
D. Unlikely
E. Rare

Table 6.1 Risk matrix

	Likelihood of adverse impact					
Potential Consequences		A	B	C	D	E
	1	High	High	Medium	Low	Very Low
	2	High	High	Medium	Low	Very Low
	3	Medium	Medium	Medium	Low	Very Low
	4	Low	Low	Low	Low	Very Low
	5	Very Low	Very Low	Very Low	Very Low	Very Low

6.2 Risk analysis

The rating and prioritisation of potential environmental effects related to the Proposal is provided in Table 6.2. This rating allows the prioritisation of issues for assessment and does not consider the application of mitigation measures to manage environmental effects. In all cases, appropriate and proven mitigation measures would be used to minimise and manage potential impacts identified in this risk analyses. These measures are described throughout Section 7 of this SEE.

Table 6.2 Proposal risk assessment

Environmental Aspect	Potential Environmental Issue	Consequence	Likelihood	Rating
Traffic	Traffic impacts on the road network due to truck movements generated by the Proposal	3	E	Medium
Noise	Noise impacts including noise generated during 24-hour operations	3	E	Medium
Surface Water	Impact to Hunter River because of spills, leaks or other discharge of any materials to the catchment	4	E	Low
Air Quality	Vehicle emissions during operation and potential for dust generation	4	E	Low
Waste management	Waste generation, management, and disposal	4	E	Very low
Visual and lighting	Visual impact and potential light spill from temporary lighting	4	E	Very low
Social and economic	Impacts on the local community due to the operation of the site and potential flow on economic impact	4	E	Very low
Aviation safety	The impact of cranes or other tall equipment	5	E	Very low

6.3 Key environmental issues

Based on the risk analysis presented above, the key factors and aspects requiring more detailed assessment within this SEE include:

– Traffic
– Noise
– Surface water
– Air quality

Environmental aspects identified as having a medium to low potential of impacts are addressed in Sections 7.1 to Section 7.4. Other aspects predicted to have a very low impact are addressed in Section 7.5.

7. Environmental impact assessment

7.1 Traffic

To support ongoing use and development of the Mayfield site, WSP was engaged by PON to undertake a traffic impact assessment (refer to Appendix A).

7.1.1 Background

The Mayfield site currently operates under planning approvals DA 8137, SSD 7065 and DA293_08_00 and the overarching Mayfield Concept Plan (MCP).

Mayfield Concept Plan

Schedule 3 Condition 2.3 of the Mayfield Concept Approval states that projects associated within the MCP shall not exceed the total truck movement limits shown in Table 7.1. These are reported on a bi-monthly basis.

Table 7.1 MCP truck movement limits

Total truck movements per annum	Total truck movements per day	Total truck movements in peak periods
462,104	1,268	95

A truck movement is counted as a one-way trip. Accordingly, a truck arriving at site to load cargo and then exiting the site is counted as two movements. Currently only two projects are operational within the MCP, the Mayfield Cargo Storage Facility (MCSF) and the Stolthaven Mayfield Terminal (SMT).

DA8137

DA 8137 covers the Cargo Storage Facility on the Mayfield site. It is permitted to operate 24 hours a day, 7 days a week with conditions on noise, minor improvements to Selwyn Street, and the development of an Operational Environmental Management Plan (OEMP). The OEMP includes the requirement to:

– Detail measures to manage traffic in accordance with the MCP Traffic Management Plan.
– Include details of a reporting program to be provided annually to PON that is prepared in accordance with the MCP's Traffic Monitoring and Review Plan. The traffic monitoring program shall include details of traffic movements to and from the site (during peak periods and daily volumes), including along Selwyn Street.

SSD15_7065

SSD 15_7065 covers the SMT on the western side of the MCP. It is accessed via Steel Works Road and Bulk Liquid Precincts Drive. Bulk petroleum products arrive at the site by ship and depart via truck.

DA293_08_00

DA293_08_00 covers the Multi-Purpose Terminal at the Mayfield site. This consent requires various management plans including an OEMP and a Traffic Management Plan describing:

– Truck movements into and out of the site will be steady throughout normal business hours at around 5 to 10 truck movements per hour, peaking at up to 15 to 20 truck movements per hour in line with normal traffic peak hours. When ships are being unloaded or loaded directly onto road transport this may be up to 35-40 truck movements per hour.
– At Year 10, peak vehicle movements on a day when a ship is at the berth, including personnel vehicles, may total 800 vehicle movements per day.
– Establishes the heavy vehicle route and sets performance measures for operations by stevedores.

The traffic volumes described in the OEMP and Traffic Management Plan are expected volumes and not agreed limits.

Existing traffic movements

The traffic movements on the Mayfield site are primarily generated from two sites within the MCP: Mayfield Cargo Storage Facility (DA 8137) and the Stolthaven Mayfield Terminal (SSD 7065). The data for each site has been sourced from their most recent respective bi-monthly traffic management reports (January/February 2022) for the annual period March 2021 to February 2022. The total number of truck movements is well within the MCP truck movement limitations as shown in Table 7.2.

Table 7.2 Truck movements on Mayfield Site (March 2021 – February 2022)

Source	Total truck movements per annum	Total truck movements per day	Total truck movements in peak periods
Stolthaven Mayfield Terminal	33,170	91	4
Mayfield Cargo Storage Facility	33,286	91	4
Total	**66,556**	**182**	**8**
MCP truck movement limits	**464,104**	**1,268**	**95**
Proportion of MCP approval limit	**14%**	**14%**	**8%**

7.1.2 Impact assessment

The proposed modification to expand the total area from 12 hectares to 18.6 hectares corresponds to an approximately 55% increase. A conservative approach, and a worst-case scenario, is to assume this results in a proportional increase in truck movements. Even with a 55% increase, the total number of truck movements would still be well within the MCP truck movement limits as shown in Table 7.3.

Table 7.3 Truck Movements on the Mayfield Site with Proposed Modifications

Source	Total truck movements per annum	Total truck movements per day	Total truck movements in peak periods
Existing truck movements	66,556	182	8
Additional truck movements	18,307	50	2
Total	**84,763**	**232**	**10**
MCP truck movement limits	**462,104**	**1,268**	**95**
Proportion of MCP Approval Limit	**18%**	**18%**	**10%**

This traffic impact assessment shows that the expansion of the Mayfield Cargo Storage Facility can be accommodated well within the Mayfield Concept Plan truck movement limits.

7.1.3 Mitigation measures

No changes to the types of activities currently undertaken at the Proposal site are proposed. As such, no large changes to traffic are anticipated to occur. Mitigation measures suggested below are currently undertaken by the Proponent and tenants. These would remain unchanged and would apply to a wider area if the Proposal were to be approved.

Mitigation measures are as follows:

– Minimise heavy vehicle movements during peak times.
– Require heavy vehicle movements to occur on approved routes to prevent movements through residential areas.
– Prevent heavy vehicle movements on residential streets.
– Require that the appropriate permits are obtained for the haulage of oversized or over mass loads and that the requirements of these permits (e.g. vehicle escorts) are fully implemented.
– Undertake reporting as required by the MCP *Traffic Monitoring and Review Plan*.

7.2 Noise

PON commissioned AECOM Australia Pty Ltd (AECOM) to review the proposed expansion of the Mayfield Cargo Storage area and determine any acoustic implications associated with the proposed expansion (refer to Appendix B).

The acoustic review was conducted to determine compliance with the requirement of development consent DA 8137. In addition, as the Facility lies within the MCP approval area, it requires noise emissions from the site to be consistent with the environmental assessment requirements of the MCP Approval.

Conditions B1, B2 and B3 of Development Consent (DA 8137) outline the methods to determine compliance with the noise limits. The Facility's noise emissions have achieved compliance with the applicable noise limits as documented in five previous annual (2017 to 2021) operational noise compliance assessments.

7.2.1 Background

The Facility is located on the former BHP steelworks site in Mayfield North, adjacent to the Hunter River, approximately 5 kilometres north-west of Newcastle CBD. The nearest residential areas to the site are located to the south-west of the Facility site at Mayfield, with the closest receivers in Crebert Street, approximately 800 metres from the nearest boundary of the Facility. To the south-east there are residential receivers located in Carrington, approximately 2 kilometres away.

Operational noise sources

The existing Facility comprises the operation of an approximately 12 hectares Port storage area within the Mayfield Concept Plan precinct. The Facility provides for the storage of a range of freight and cargo, including but not limited to, project cargo such as wind turbine and tunnel boring machine components, large industrial components, luxury boats, electrical transformers and machinery, general cargo such as farm machinery, excavators, and construction machinery, breakbulk such as steel or timber products, and containerised cargo. Freight is unloaded via 'ships gear' (ship mounted cranes and cargo handling equipment) onto trucks at Mayfield No. 4 Berth or other berths within the Port and transported to the Cargo Storage Area for unloading. Distribution of cargo is then via truck to its final destination. Cargo may also be trucked from its point of origin to the storage facility for consolidation and export via Mayfield No. 4 Berth, or another berth within the Port.

General day-to-day activities, include moving or stacking of cargo. Plant and machinery used include reach stackers and forklifts for unloading, moving, stacking and loading cargo.

Operations at the site consist of the following activities:

– Internal private access roads:
    - Moving trucks, idling trucks
– Industrial noise sources
    - Reach stackers
    - Forklifts

The operational hours for the existing Facility are Monday to Sunday, 24 hours per day.

Operational noise limits

Section B2 of the Development Consent (DA 8137) presents the operational noise limits that apply to the Facility and are reproduced in Table 7.4.

Table 7.4 Operational noise limits

No.	MCP Receiver	Location	Day	Evening	Night		
			$L_{Aeq\ (15min)}$	$L_{Aeq\ (15min)}$	$L_{Aeq\ (15min)}$	$L_{Aeq\ (9hr)}$	$L_{A1\ (11min)}$
R1	A	1 Arthur Street, Mayfield	35	35	35	35	46
R2	B	2 Crebert Street, Mayfield	39	39	39	35	51
R3		24 Crebert Street, Mayfield	40	39	39	35	52
R4	C	32 Elizabeth Street, Carrington	35	35	35	35	41
R5	D	186 Fullerton Road, Stockton	35	35	35	35	40

Section B2 of the Development Consent (DA 8137) presented sleep disturbance criteria which are also provided in Table 7.4 as the L_{A1} criteria.

Mayfield concept plan noise quota

Condition B3 of the Development Consent (DA 8137) provides the following with respect to MCP noise quota:

> *"B3. The Applicant must:*
>
> *a. ensure noise from the site does not exceed the noise quotas provided by the PON in accordance with the Site Noise Model; and*
>
> *b. comply with the directions of the PON in relation to the management of noise from the Site."*

Amenity noise requirements – Mayfield Concept Plan

As the Facility is located within the MCP area, it is also subject to the noise requirements of the concept approval (09_0096MOD 2) (MCP approval). Conditions 2.16 to 2.20 of the MCP approval outlines the operational noise and vibration requirements related to projects sites that are situated with the MCP area.

Condition 2.17 sets out noise limits for the cumulative noise impact of all projects associated with MCP. The MCP approval aims to address the cumulative noise impacts from all sites that will operate within the MCP area. It aims to prevent any individual site being designed to use up all of the MCP approval noise limits, which will then result in all other developments having overly stringent noise requirements, and development other areas of the MCP constrained. PON has developed an approach for addressing the cumulative noise impacts by allocating noise quota to individual sites within the MCP area, in order for the entire site once fully developed to meet the overall noise limits set out in the MCP Approval.

PON has developed a Cumulative Environmental Noise Management Tool (CENMT), which includes the development of a Site Noise Model as required by Condition 2.16 to address those matters listed in Condition 2.19.

Existing, specific amenity noise quota derived using the MCP CENMT are presented in Table 7.5.

Table 7.5 Summary of MCP noise quota for existing Cargo Storage Facility

Location	Cargo Storage Facility specific MCP noise quota, $L_{Aeq, period}$, dB(A)		
	Day (7:00 am to 6:00 pm)	Evening (6:00 pm to 10:00 pm)	Night (10:00 pm to 7:00 am)
A – 1 Arthur Street, Mayfield	51	40	34
B – 2 Crebert Street, Mayfield	51	41	34
C – 32 Elizabeth Street, Carrington	46	33	34
D – 186 Fullerton Road, Stockton	45	27	27

7.2.2 Impact assessment

The proposed expansion of the Cargo Storage Area would result in the operation of an approximately 18.6 hectares Port storage area within the Mayfield Concept Plan precinct. The proposal is for 'more of the same' cargo, just with additional space available. The outcomes associated with the proposed expansion of the Cargo Storage Area are outlined in Table 7.6.

Table 7.6 Expansion of the Cargo Storage Area outcomes

Item	Description
Cargo storage area	18.6 hectares
Operating activities	No changes to existing operating activities No changes to cargo handling equipment Similar cargo handling, e.g. wind turbine components, mining plant equipment, farm machinery, containerise cargo, bulk materials, etc.
Hours of operation	No changes (24 hours, 7 days per week)
Truck movements	No changes in truck volumes or truck routes

Given that the proposal is to expand the existing Cargo Storage Area, new noise quotas derived using the MCP CENMT should be assigned the expanded Cargo Storage Area. The MCP Cargo Storage Facility, proposed expansion, specific amenity noise quota derived using the MCP CENMT are presented in Table 7.7.

Table 7.7 Summary of MCP noise quota for proposed expansion to the Cargo Storage Facility

Location	Cargo Storage Facility specific MCP noise quota, $L_{Aeq, period}$, dB(A)		
	Day (7:00 am to 6:00 pm)	Evening (6:00 pm to 10:00 pm)	Night (10:00 pm to 7:00 am)
A – 1 Arthur Street, Mayfield	53	42	36
B – 2 Crebert Street, Mayfield	53	43	36
C – 32 Elizabeth Street, Carrington	48	35	36
D – 186 Fullerton Road, Stockton	47	29	29

The proposal for the expansion of the Cargo Storage Facility is for 'more of the same' cargo, just within an expanded area. Accordingly, the proposal is unlikely to have any adverse impacts on existing noise sensitive receivers surrounding the Mayfield Cargo Storage Facility. In addition, the Facility's noise emissions have demonstrated compliance with the applicable noise limits as documented in five previous annual (2017 to 2021) operational noise compliance assessments. Given that the proposal is to expand the existing Cargo Storage Area, AECOM recommends that new noise quotas derived using the MCP CENMT should be assigned the expanded Cargo Storage Area presented in Table 7.6.

7.2.3 Mitigation measures

No changes to the types of activities currently undertaken at the Proposal site are proposed. As such, no significant changes to noise are anticipated to occur. Mitigation measures suggested below are currently undertaken by the Proponent and tenants. These would remain unchanged and would apply to a wider area if the Proposal were to be approved. Mitigation measures are as follows:

– Site establishment activities will only be undertaken during standard working hours as detailed in the EPA's *Interim Construction Noise Guidelines* (ICNG, 2009).
– Standard reasonable and feasible noise management measures as detailed in the ICNG will be suitable for the management of potential site establishment noise.
– Equipment will be fitted with broadband reversing alarms where practical.

7.3 Surface water

7.3.1 Background

The Proposal site is currently a fully sealed hardstand area with runoff sheet flowing into an existing onsite stormwater management system. Runoff is directed via overland flow to the MCP drainage system that was installed as part of the remediation works. To prevent infiltration of water into the soils beneath the MCP area, the remediation project capped the Proposal site with hardstand of very low permeability and directed flow to a series of trunk drains located around the MCP area.

Much of the Proposal site drains to a culvert located along the northern boundary of the site. Runoff entering this culvert is then transferred by an underground pipe and discharged directly into the Hunter River. A small portion of the site also drains towards the west and sheet flow into the MCP Western Truck Drain which then connects directly to the Hunter River.

7.3.2 Impact assessment

No changes to the types of activities currently undertaken at the Proposal site are proposed. The modification proposes expanding the boundary of the cargo storage facility. The modification further proposes reallocating traffic to the west of the Proposal site. These proposed modifications are not anticipated to impact surface water.

Conditions after the Proposal is approved would be consistent with current conditions, however over the expanded area. There will be no disturbance of soils due to construction or operation accordingly there is no potential for exposed soils that would require the implementation for water quality control measures (sediment and erosion controls).

As described in Section 3.2.2 operations would consist of the storage of project cargo. As these would typically be large pieces of plant, machinery or other equipment, potential for impacting water quality would be limited. Importantly no bulk cargo, such as stockpiles materials that could be mobilised by water, are proposed as part of the Proposal. Nor are any bulk liquids to be stored that could cause large spills.

With the use of vehicles, plant, and machinery however there is potential for leaks and spills of hydrocarbons to occur, for example from hydraulic line breaks or fuel spills during refilling operations. To manage these potential risks PON would require tenants to provide spill kits of a type and number suitable for their proposed operations. If onsite refuelling is to occur, it would be undertaken in a dedicated refuelling bunded area.

The MCP Stormwater Management Strategy (SMS) (AECOM, 2015) provides a high-level overview of the existing drainage network of the MCP Area. As detailed in the SMS, individual operations within the MCP area are required to prepare Construction Environmental Management Plans (CEMP) for their construction activities. As construction activities would be limited to the Proposal site establishment of temporary facilities (e.g. portable toilets, demountable crib building) there will be no construction works resulting in disturbed soils or impacting established runoff regimes. Tenants would however be required to provide to PON a proposed site layout detailing location of proposed site amenities, spill kit, temporary refuelling bunds or similar prior to implementation.

As detailed in the SMS, individual operations within the MCP area, such as the Proposal, would be required to prepare operational management plans for their specific operations. The SMS indicated that operational management plans may consist of:

– Soil and Water Management Plan
– Spill Management Plan
– Emergency Response Plan

As detailed in the SMS, the Proposal area is not subject to flooding from either an oceanic flooding event, or Hunter River Flooding under with the 1% Annual Exceedance Probability (AEP), or Probably Maximum Flood (PMF) scenarios. Accordingly, no consideration of the potential mobilisation of project cargos because of flooding is required.

7.3.3 Mitigation measures

No changes to the types of activities currently undertaken at the site are proposed. As such, no large changes to surface water are anticipated to occur. Mitigation measures suggested below are currently undertaken by the Proponent and tenants. These would remain unchanged and would apply to a wider area if the Proposal were to be approved.

Runoff is proposed to be directed to the established MCP drainage network. Due to the types of cargos proposed to be stored by the Proposal there is limited potential for water quality impacts to occur.

Despite this PON would ensure measures are implemented to:

– Ensuring tenants do not store bulk liquids or other bulk materials in the Proposal site that could become waterborne and threaten the quality of the Hunter River receiving catchment.
– Requiring tenants to provide spill kits to manage potential leaks or spill from site plant or equipment.
– Wastewater from amenities to be contained in portable toilets if required and removed from the site for disposal by a licensed contractor.
– If plant refuelling is required, only doing so inside a bunded refuelling area.
– Specific details required by each tenant will be provided in an OEMP for approval by PON prior to use of the Proposal site.

7.4 Air quality

7.4.1 Background

The Proposal site is currently maintained as an open hardstand area. The wider port area is typified by a range of port and industrial uses. Importantly bulk cargo (coal) handling and related activities generate particulate matter. Other key impacting land uses on air quality include transport (road and rail) and impacts from sea spray. These factors combine to generate a relatively high level of background particulate matter in Newcastle.

As the Proposal site is located within the MCP area consideration is required of the:

– MCP Site Air Quality Model
– MCP Air Quality Monitoring Program

These plans require consideration of existing air quality emissions not only from the Proposal site but also the wider MCP area. To date the only other source of emissions from the MCP area are emissions associated with the Stolthaven Bulk Fuel Terminal. As a result of the former remediation works undertaken across the Proposal site eight vapour sampling wells were established on the site to monitor potential for BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) vapours to escape the capped area and potential present an occupational exposure hazard for workers on the site.

PON has carried out periodic monitoring of these wells to determine hazard potential. The results of the most recent monitoring are detailed in Robert Carr and Associates (RCA) *Report Compiled for Port of Newcastle Operations Detailing Benzene Vapour Sampling October 2016.* The monitoring results indicated that BTEX levels were below the limit of reporting for all BTEX elements.

7.4.2 Impact assessment

No changes to the types of activities currently undertaken at the Proposal site are proposed. The modification proposes expanding the size of the cargo storage area.

The primary source of emissions generated would be combustion emissions from trucks, vehicles and plant such as forklifts. These emissions include both products of combustions such as oxides of carbon and nitrogen, as well as particulate matter. Due to the relatively small numbers of plant and equipment that would be required onsite and the occasional nature they will be used, any such emissions would be relatively small and are unlikely to have any observable impacts. Maintaining plant and machinery in good working order to minimise any such emissions. Consideration of cumulative emissions from the entire MCP area is also required. The only other operation in the MCP area is the Stolthaven Bulk Fuel Terminal. The primary source of emissions from this operation are volatile organic compounds (VOCs). As the Proposal would not be a source of VOCs no cumulative impacts are anticipated to occur.

As the Proposal site is currently a sealed hardstand area and would remain so for the duration of the Proposal, no dust generation from exposed soils would occur. Due to the nature of the Proposal, there are no significant emissions sources proposed. As there is limited potential for air emissions to occur there would be no benefit from modelling Proposal emissions through the *Mayfield Concept Plan Site Air Quality Model.* Similarly, no additional monitoring requirements would be required as part of the *Mayfield Concept Plan Air Quality Monitoring Program.* Due to the negligible level of BTEX vapours found to be being emitted from ground monitoring wells the potential risk to workers would also be negligible.

The Proposal is not seeking any changes to the current activities being undertaken on the Proposal site. As such, no air quality impacts, above what is currently observed, are anticipated.

7.4.3 Mitigation measures

No changes to the types of activities currently undertaken at the Proposal site are proposed. As such, no large changes to air quality are anticipated to occur. Mitigation measures suggested below are currently undertaken by the Proponent and tenants. These would remain unchanged and would apply to a wider area if the Proposal were to be approved.

Mitigation measures are as follows:

– All vehicles required by the operation will be maintained in good working order to minimise the potential for excess emission.
– Where plant or equipment that is idling for prolonged periods, it would be switched off.
– The Proposal would not trigger the need for any additional monitoring or management measures to be incorporated into the MCP operational site management required under the *Mayfield Concept Plan Air Quality Monitoring Program.*

7.5 Other matters

The Proposal will not include any changes to the current activities on the Proposal site. Likely environmental impacts for other environmental matters are anticipated to be very low. These matters are detailed in Table 7.8.

Table 7.8 Other Environmental Impact Considerations

Environmental Matter	Impact Assessment
Visual and lighting	The existing site is a sealed hardstand area with no distinguishing features, building or infrastructure. The Proposal site is surrounded by port and industrial related activities and visually screened from potentially sensitive (residential) areas by other industrial buildings/facilities and roadside vegetation on Industrial Drive. Similarly the site currently has no formal lighting arrangements. The nearest residential receivers located to the southwest are visual screened from the Proposal site by vegetation along the Industrial Drive corridor and business premises. Due to the offset distances to the nearest sensitive receivers and visual buffer provided by surrounding development and vegetation there are no visual corridors to or through the site which the Proposal may impact upon. There would be no permanent infrastructure or tall structures which form part of the Proposal that would result in significant visual impacts. As part of the ongoing operations at the site there may be a need to established temporary lighting to aid night-time operations. Any such lighting would only be in use during the hours and nights when operations are proposed and therefore would be operated infrequently. Temporary lighting would be comparable to other floodlighting in the vicinity (e.g. M4 lighting) which has negligible impact on residents. The following measures would be implemented to control potential light spill: – Lighting would be temporary and only operated on an as needs basis during operations – Lighting equipment would be located at the periphery of the site and directed inwards and downwards – Where relevant lighting would be operated in accordance with *Australian Standard 4282 Control of the Obtrusive effects of outdoor lighting*
Waste	Waste generation would be dependent on the type of cargo being stored on Proposal site. There will generally be no significant waste generation from the storage of cargos. Dunnage (materials, usually wood, used to securely pack cargos into ship holds and prevent movement while in transit) may be unpacked from ships following the import of cargos. Dunnage material could subsequently be used for supporting or resting cargos while stored on land. PON would require tenants to remove dunnage material from Proposal site when removing cargos. If amenities buildings are required PON tenants would be required to provide waste receptacles for staff generated wastes to the satisfaction of PON. Waste receptacles would be provided by a licenced waste contractor and disposed of at a licensed waste disposal facility as required. Details of individual tenant's waste storage and disposal requirements would be provided to PON by tenants prior to operations.
Hazard and risk	No hazardous or dangerous materials as classified by the Australian Dangerous Goods Code are proposed to be stored or transferred as part of the Proposal. No specific assessment of potential hazards or risk is therefore required under the DPE Hazardous Industry Planning Advisory Papers (HIPAPs).
Social and economic	The Proposal would see currently underutilised port side land used for a port related purpose. The Proposal would support the importation of a range of project cargos that would be utilised by a variety of projects across NSW and potentially Australia such as wind farm developments, mining and infrastructure projects. The Proposal would also generate new economic benefits to the local area with new employment opportunities to be created and expenditure in the local economy during operation. In the absence of the Proposal, tenants may seek alternative import options for project cargos, including interstate port options therefore reducing the overall economic and resulting benefits for the people of NSW. Imports made via alternative ports would see a loss of economic benefits to the local economy. As detailed in this SEE the Proposal can be undertaken within minimal impact to the environment or community so overall the Proposal is considered to have a positive social and economic benefit.
Aviation safety	The Proposal Area is located within the 15-kilometre buffer area from the Newcastle (Williamtown) Airport. In accordance with the Civil Aviation Safety Authority (CASA) Advisory Circular *AC139-08(0)-Reporting of Tall Structure* any permanent or temporary structure 30 metres or taller within 15 kilometres of the airport requires reporting and approval from the airport. Whilst considered unlikely, should any temporary cranes be required for the movement of Proposal cargos on the Proposal site that are greater than 30 metres in height, PON would comply with the CASA reporting requirements.

7.6 Cumulative impacts

The Proposal seeks to utilise an additional existing hardstand area for the storage of project cargos without proposed permanent buildings, infrastructure or activities. The potential for cumulative impacts to occur is limited.

Due to the size of the Proposal site there is potential for it to be used by multiple customers each using a portion of the site. This SEE has sought to assess the potential impacts of the whole of site being in use at a given time to capture potential cumulative impacts from multiple customers operating across the site. The noise assessment undertaken as detailed in Section 7.2 utilised the MCP site noise model which includes other noise sources from within the MCP area and identified the Proposal would operate within both Proposal specific and MCP noise criteria.

There are also potential cumulative traffic impacts to occur due to interactions with existing traffic particularly on Industrial Drive. As part of the traffic assessment as detailed in Section 7.1 traffic count of the Industrial Drive – George Street intersection were carried out to determine current traffic loadings. This was then used to examine the potential impacts of the Proposal. This assessment found that the intersection would be operating with acceptable Levels of Service under a worst-case traffic scenario.

Given that the Proposal area would only be used occasionally any impacts would be further reduced. Potential cumulative impact in regard to other environmental aspects are considered to be negligible due to the lack of construction activities, occasional use of the site and nature of the Proposal.

7.6.1 Stolthaven Stage 3

Given the proximity of the Proposal to operations at Stolthaven, there is potential for cumulative impacts to occur. Mitigation of these potential impacts will occur through direct liaison between Stolthaven and the Proponent.

Liaison between these parties is necessary to avoid adverse impacts. It will be necessary to discuss timing regarding the use of roads that are used by both of these parties to avoid any cumulative traffic impacts (such as in the case of Steelworks Road).

The area is already industrial in nature which generates a relatively high level of background particulate matter in Newcastle. As the Proposal does not involve any construction or changes to current activities, is it unlikely that interactions between this proposed upgrade and the Proposal will worsen air quality. It is unlikely that the interaction of these proposals will impact noise, surface water or any other environmental matters.

7.6.2 Orica Ammonium Nitrate Facility Upgrade MOD6

Orica’s Kooragang Island site is located at 15 Greenleaf Road. This site is located across Hunter River from this Proposal.

Construction for this upgrade is scheduled to occur in January 2023 over a 24 month period. The area is already industrial in nature which generates a relatively high level of background particulate matter in Newcastle. As the Proposal does not involve any construction or changes to current activities, is it unlikely that interactions between this proposed upgrade and the Proposal will worsen air quality.

It is unlikely that the interaction of these proposals will impact noise, surface water or any other environmental matters.

8. Summary of mitigation measures

Table 8.1 below provides a summary of mitigation and management measures that will be incorporated into the operational activities by each tenant on a case-by-case basis to mitigate against any potential impact to the environment.

No changes to the activities currently undertaken at the site are proposed. As such, no changes to mitigation measures are suggested. The measures identified below are currently undertaken by the Proponent and tenants. These measures would remain unchanged and would apply to the larger cargo storage area that this modification is proposing.

Table 8.1 Mitigation measures

Environmental Matter	Proposed Management Measures
Traffic	– Minimise heavy vehicle movements during peak times. – Require heavy vehicle movements to occur on approved routes to prevent movements through residential areas. – Prevent heavy vehicle movements on residential streets. – Require that the appropriate permits are obtained for the haulage of oversized or over mass loads and that the requirements of these permits (e.g. vehicle escorts) are fully implemented. – Undertake reporting as required by the MCP *Traffic Monitoring and Review Plan*.
Noise	– Site establishment activities will only be undertaken during standard working hours as detailed in the EPA's *Interim Construction Noise Guidelines* (ICNG, 2009). – Standard reasonable and feasible noise management measures as detailed in the ICNG will be suitable for the management of potential site establishment noise. – Equipment will be fitted with broadband reversing alarms where practical.
Surface Water	– No storage of bulk liquids or other bulk materials in the Proposal Area that could become waterborne and threaten the quality of the Hunter River receiving catchment. – Spill kits will be provided to manage potential leaks or spill from site plant or equipment. – Wastewater from amenities will be contained in portable toilets if required and removed from the site for disposal by a licenced contractor. – Plant refuelling will only be undertaken within a bunded refuelling area.
Air Quality	– All vehicles required by the operation will be maintained in good working order to minimise the potential for excess emissions. – Where plant or equipment that is idling for prolonged periods, it should be switched off.
Visual and lighting	– Lighting will be temporary and only operated on an as needs basis during operations. – Lighting equipment will be located at the periphery of the site and directed inwards and downwards. – Where relevant lighting will be operated in accordance with *Australian Standard 4282 Control of the Obtrusive effects of outdoor lighting.*
Waste	– All other wastes from site will be stored in appropriate receptacles and disposed of via a licenced waste contractor for disposal at a licensed waste management facility.
Hazard and risk	– No hazardous materials or dangerous goods as defined by the Australian Dangerous Goods Code will be allowed to be transferred through or stored in the site in bulk as part of this Proposal.
Aviation safety	– Compliance with requirements of CASA Reporting of Tall Structures for any structures (cranes) that may operate beyond 30 metres above ground level.

9. Conclusion

The Proponent is seeking to further modify DA 8137 to allow for a variation of the designation of areas within the approved DA Boundary to increase the cargo storage area.

The Proposal site is situated within the Mayfield Concept Plan Area which is an existing hardstand area directly adjoining the south arm of the Hunter River. The site was historically used for heavy industrial purposes such as steelmaking. Following closure of the BHP Steelworks in 1999 the site was remediated and is currently managed as an open hardstand area.

The site has a hardstand area with a large amount of available space near a berth (Mayfield Berth No. 4) with deep channel access. Accordingly, it provides the proponent an opportunity to establish a larger cargo storage area.

This SEE has demonstrated that that the proposed modification is largely consistent with the existing approved project and therefore presents little material change to impacts. The key issues of traffic and noise have been assessed and shown to the suitably managed using standard and proven management measures. The use of the Proposal site would have social and economic benefits and the Proposal would see the site used for a higher economic purpose as well as supporting a range of other projects across the Hunter region and NSW generally.

10. Reference list

AECOM, 2016, *Statement of Environmental Effects, Cargo Storage Facility, Mayfield*

AECOM, 2022, *Mayfield Cargo Storage Facility Expansion Operational Noise Review*

Aurecon, 2019, *Statement of Environmental Effects, Development Consent Modification. Mayfield Cargo Storage Facility*

Port of Newcastle, 2022a, *General Cargo Handling Facility Condition 1.1.B report 2022*

Port of Newcastle, 2022b, What we do | Project cargo, *https://www.portofnewcastle.com.au/cargoes/*

SKM, 2004, *BHP Closure Area Remediation Action Plan*

WSP, 2022, *Port of Newcastle Mayfield Modifications Traffic Assessment Report - Modification 1*

Appendices

Appendix A

Traffic and transport impact assessment

Design
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Mayfield Modifications Traffic Assessment Report - Modification 1

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Mayfield Modifications Traffic Assessment Report - Modification 1

Port of Newcastle

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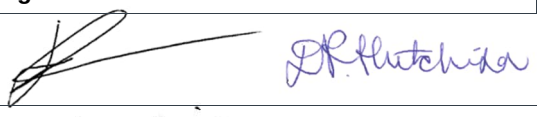
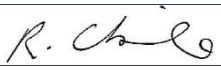
Rev	Date	Details
A	16/06/2022	Preliminary Draft for client review
B	29/07/2022	Final Report incorporating client feedback

	Name	Date	Signature
Prepared by:	Jeffrey Huang, Deborah Hutchison	29/07/2022	
Reviewed by:	Rachael Christie	29/07/2022	
Approved by:	Deborah Hutchison	29/07/2022	

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.

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Abbreviations

EOT	Extension of Time
MCP	Mayfield Concept Plan
MCSF	Mayfield Cargo Storage Facility
NSW	New South Wales
OEMP	Operational Environmental Management Plan
PON	Port of Newcastle
SMT	Stolthaven Mayfield Terminal
TEU	Twenty-foot Equivalent Unit

1 Background

1.1 Site Details

The Mayfield development site is one of Port of Newcastle's (PON's) projects intended for use in port-related activities. Ninety hectares in land size, it is currently approved for use and activities as outlined in the Mayfield Site Port Related Activities Concept Plan, referred to as the Mayfield Concept Plan (MCP). As a future opportunity, the site will potentially house a multi-purpose cargo facility focused on bulk materials and general cargo. It is strategically located in the industrial area of Mayfield North near a wide variety of businesses and main roads. This will allow PON to grow and diversify the regional economies of New South Wales (NSW) by enhancing the efficiency of existing supply chains.

The Mayfield development site in context of the surrounding road network is shown in Figure 1.1.

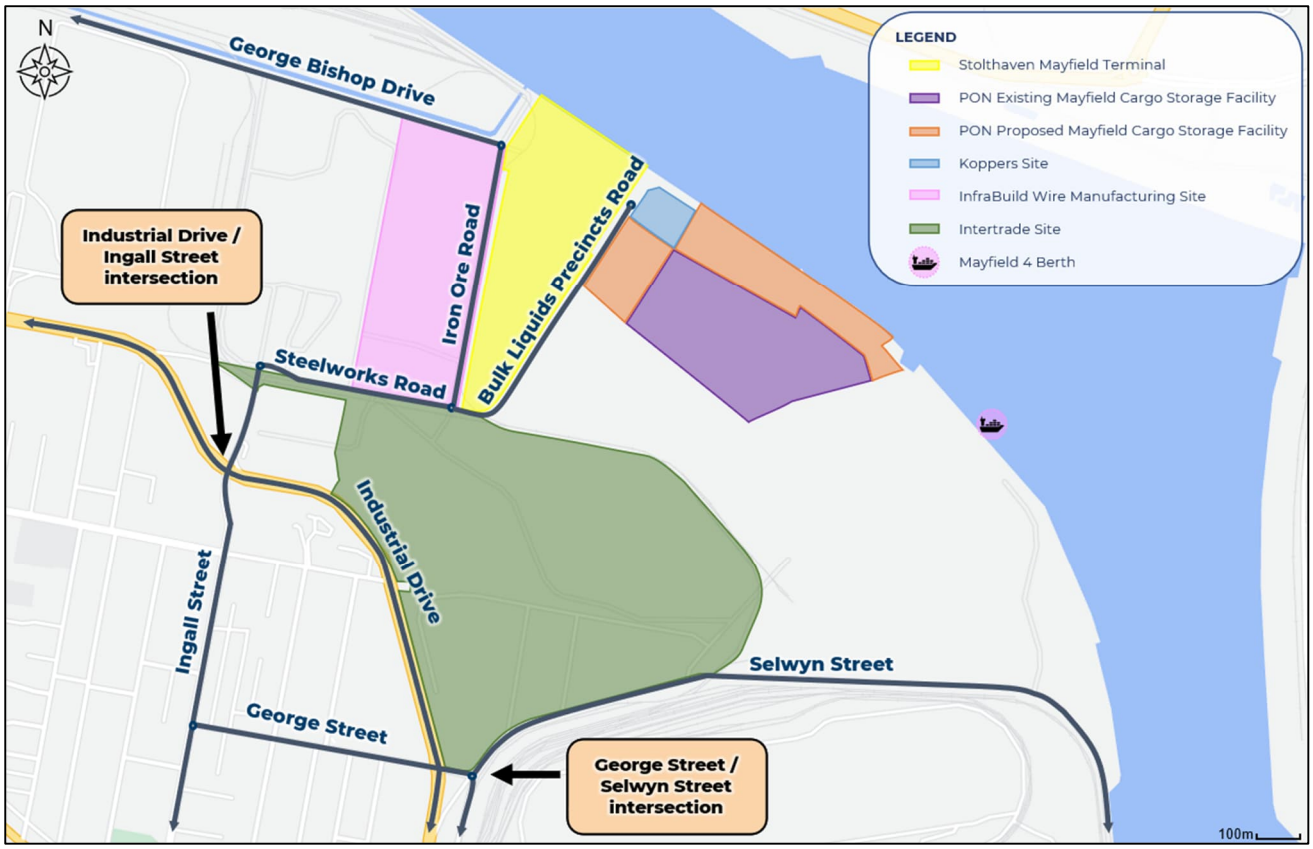

Figure 1.1 Mayfield development site location

1.2 Purpose of This Report

To support ongoing use and development of the Mayfield site, WSP has been engaged by PON to undertake a traffic impact assessment for three elements. This report addresses the first element:

1. Expansion of the Mayfield Cargo Storage Facility (a Modification under original DA 8137).
2. Use of easement over Steel Works Road for truck movements between Mayfield Berth 4 and the InfraBuild steel wire manufacturing facility on the corner of Steel Works Road and Iron Ore Road.
3. Extension of Time for the Mayfield Cargo Handling Facility for its current expiry of November 2023 through until November 2038 (under condition 1.1A of DA293_08_00).

2 Existing Situation

2.1 Mayfield Concept Plan Existing Approvals

The Mayfield site currently operates under planning approvals DA 8137, SSD 7065 and DA293_08_00 and the over-arching Mayfield Concept Plan (MCP).

2.1.1 Mayfield Concept Plan

Schedule 3 Condition 2.3 of the Mayfield Concept Approval states that projects associated within the MCP shall not exceed the total truck movement limits shown in Table 2.1. These are reported on a bi-monthly basis.

Table 2.1 MCP Truck Movement Limits

Total Truck Movements per annum	Total Truck Movements per day	Total Truck Movements in peak periods
462,104	1,268	95

A truck movement is counted as a one-way trip therefore a truck arriving at site to load cargo and then exiting the site is counted as two movements.

Currently only two projects are operational within the MCP: the Mayfield Cargo Storage Facility (MCSF) and the Stolthaven Mayfield Terminal (SMT).

2.1.2 DA 8137

DA 8137 covers the Cargo Storage Facility on the Mayfield site. It is permitted to operate 24 hours a day, 7 days a week with conditions on noise, minor improvements to Selwyn Street, and the development of an Operational Environmental Management Plan (OEMP). The OEMP includes the requirement to:

- Detail measures to manage traffic in accordance with the MCP Traffic Management Plan
- Include details of a reporting program to be provided annually to PON that:
  - Is prepared in accordance with the MCP's Traffic Monitoring and Review Plan. The traffic monitoring program shall include details of traffic movements to and from the site (during peak periods and daily volumes), including along Selwyn Street.

2.1.3 SSD 15_7065

SSD 15_7065 covers the SMT on the western side of the MCP. It is accessed via Steel Works Road and Bulk Liquid Precincts Drive. Bulk petroleum products arrive at the site by ship and depart via truck.

2.1.4 DA293_08_00

DA293_08_00 covers the Multi-Purpose Terminal at the Mayfield site. This consent requires various management plans including:

- An OEMP and a Traffic Management Plan describing:
  - Truck movements into and out of the site will be steady throughout normal business hours at around 5 to 10 truck movements per hour, peaking at up to 15 to 20 truck movements per hour in line with normal traffic peak hours. When ships are being unloaded or loaded directly onto road transport this may be up to 35-40 truck movements per hour.
  - At Year 10, peak vehicle movements on a day when a ship is at the berth, including personnel vehicles, may total 800 vehicle movements per day.
  - Establishes the heavy vehicle route and sets performance measures for operations by stevedores.

The traffic volumes described in the OEMP and Traffic Management Plan are expected volumes and not agreed limits.

2.2 Traffic Movements

The traffic movements on the Mayfield site are primarily generated from two sites within the MCP: Mayfield Cargo Storage Facility (DA 8137) and the Stolthaven Mayfield Terminal (SSD 7065). The data for each site has been sourced from their most recent respective bi-monthly traffic management reports (January/February 2022) for the annual period March 2021 – February 2022. The total number of truck movements is well within the MCP truck movement limitations as shown in Table 2.2.

Table 2.2 Truck Movements on Mayfield Site (March 2021 – February 2022)

Source	Total Truck Movements per annum[1]	Total Truck Movements per day[2]	Total Truck Movements in peak periods
Stolthaven Mayfield Terminal	33,170	91	4
Mayfield Cargo Storage Facility	33,286	91	4
Total	**66,556**	**182**	**8**
MCP Truck Movement Limits	462,104	1,268	95
% of MCP Approval Limit	**14%**	**14%**	**8%**

Figure 2.1 shows the access points and routes for the SMT and the MCSF.

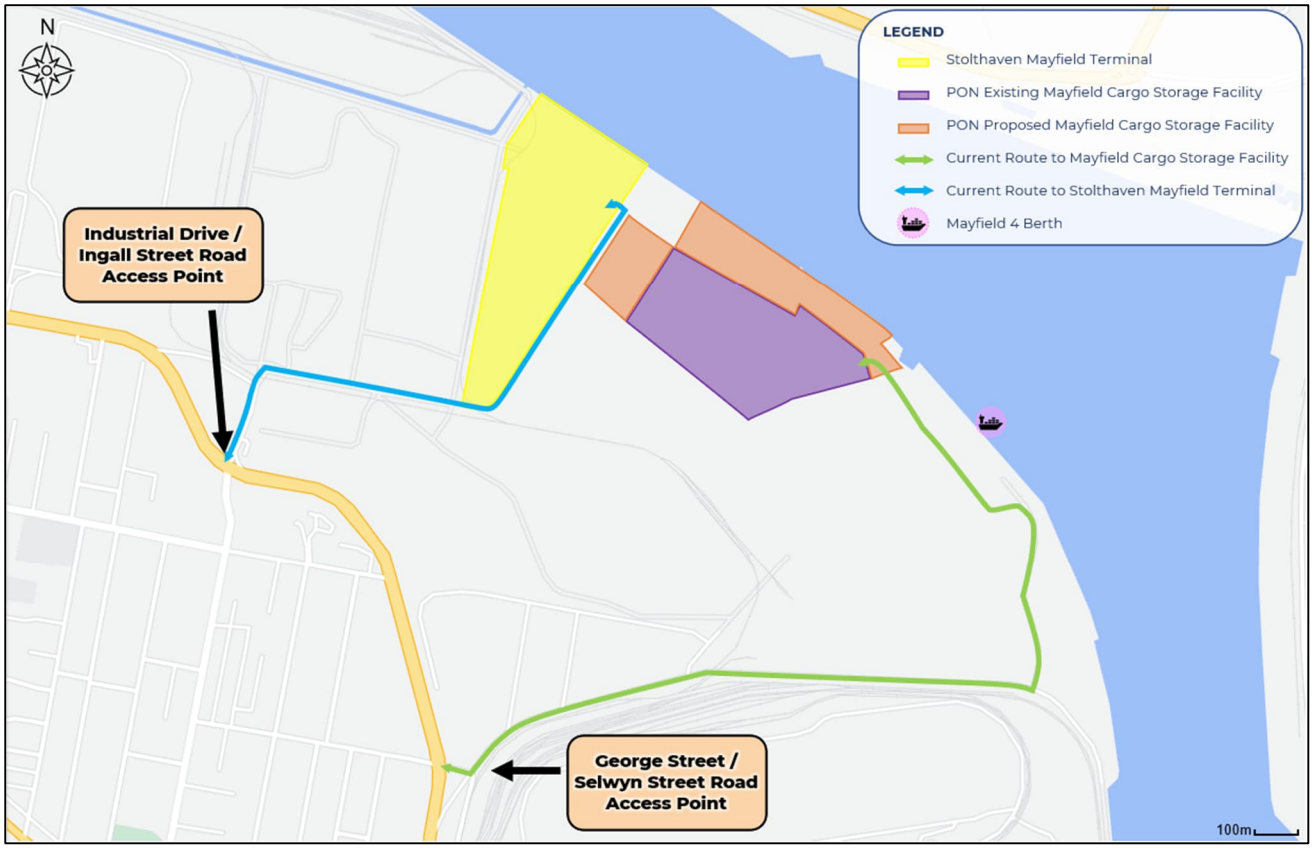

Figure 2.1 Existing Mayfield access points and routes

[1] Rolling cumulative total truck movements over 12-month period

[2] Based on an average over actual 12-month period

3 Planned Changes

3.1 Cargo Storage Facility Extension

3.1.1 Proposed Modification

The MCSF currently operates under the development consent DA 8137 allowing for a range of cargo including breakbulk, project, general and shipping containers. Storage is also provided to support major infrastructure developments such as windfarms and Snowy Hydro2.0. The current approved footprint of the site is approximately 12 hectares, with PON seeking to extend the existing approved area an additional 6.6 hectares to 18.6 hectares in total (~55% increase in total area)[3]. The expanded area will enable greater flexibility in using the site, particularly manoeuvrability of large infrastructure items, rather than an increased amount of storage capacity. This need is in part a response to the increased sizes of windfarm blades from 50m to 80m and correspondingly larger turbines. The proposed expansion is shown in Figure 3.1.

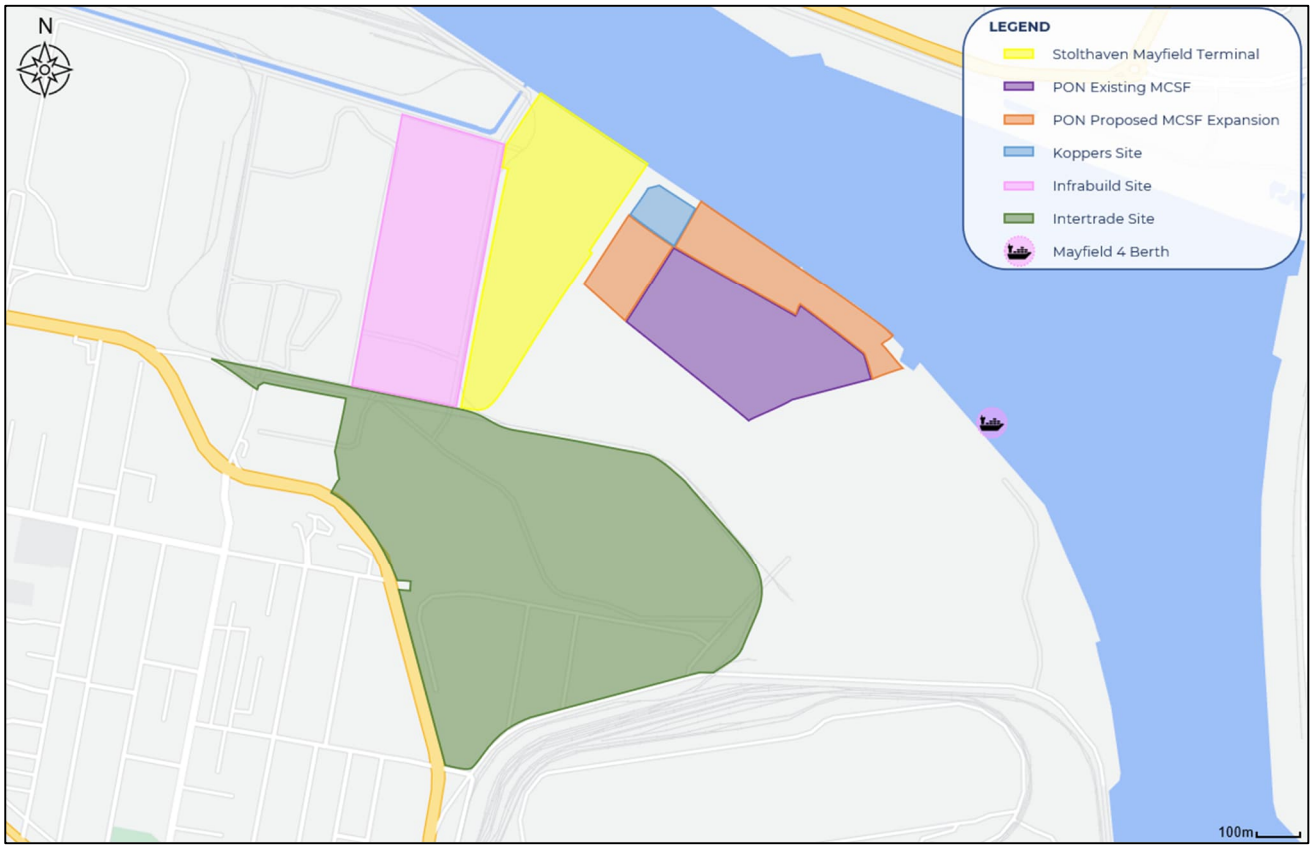

Figure 3.1 Proposed modifications and surrounding land uses of MCSF

3.1.2 Traffic Impacts

The proposed modification to expand the total area from 12 hectares to 18.6 hectares corresponds to a 55% increase in area. A conservative approach, and a worst-case scenario, is to assume this results in a proportional increase in truck movements. Even with a 55% increase, the total number of truck movements would still be well within the MCP truck movement limits as shown in Table 3.1.

[3] Statement of Environmental Effects Development Consent Modification (Aurecon, 2019)

Table 3.1 Truck Movements on Mayfield Site with Proposed Modifications

Source	Total Truck Movements per annum[1]	Total Truck Movements per day[2]	Total Truck Movements in peak periods
Existing Truck Movements	66,556	182	8
Additional Truck Movements	18,307	50	2
Total	**84,763**	**232**	**10**
MCP Truck Movement Limits	462,104	1,268	95
% of MCP Approval Limit	**18%**	**18%**	**10%**

4 Conclusions

To support ongoing use and development of the Mayfield site, WSP has been engaged by PON to undertake a traffic impact assessment for three elements:

1. Expansion of the Mayfield Cargo Storage Facility (a Modification under original DA 8137).
2. Use of easement over Steel Works Road for truck movements between Mayfield Berth 4 and the InfraBuild steel wire manufacturing facility on the corner of Steel Works Road and Iron Ore Road.
3. Extension of Time for the Mayfield Cargo Handling Facility for its current expiry of November 2023 through until November 2038 (under condition 1.1A of DA293_08_00).

This traffic impact assessment addresses the first element and has shown the expansion of the Mayfield Cargo Storage Facility is able to be accommodated well within the Mayfield Concept Plan truck movement limits.

5 Limitations

This Report is provided by WSP Australia Pty Limited (WSP) for the Port of Newcastle (Client) in response to specific instructions from the Client and in accordance with WSP's proposal dated 31st March 2022 and agreement with the Client dated April 2022 (Agreement).

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Appendix B

Noise and vibration impact assessment

Prepared for
Port of Newcastle Operations Pty Ltd
ABN: 50 825 884 846

Mayfield Cargo Storage Facility Expansion

Operational Noise Review

29-Aug-2022
Doc No. 60620229-RPNV-13_0
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Delivering a better world

Mayfield Cargo Storage Facility Expansion

Operational Noise Review

Client: Port of Newcastle Operations Pty Ltd

ABN: 50 825 884 846

Prepared by

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29-Aug-2022

Job No.: 60620229

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 and ISO45001.

Quality Information

Document Mayfield Cargo Storage Facility Expansion

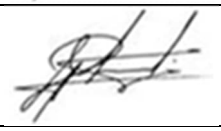
Ref 60620229-RPNV-13_0

Date 29-Aug-2022

Prepared by Philip Du

Reviewed by Patrick Martinez

Revision History

Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
A	09-Aug-2022	Draft for client review	Patrick Martinez Associate Director - Acoustics	
0	29-Aug-2022	Final issue	Patrick Martinez Associate Director - Acoustics	

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1.0 Introduction

1.1 Proposal description

Mayfield Cargo Storage Facility Development Consent (DA 8137) was issued in 2017 for the use of the existing hardstand area as Port facilities for the storage of freight, including the loading and unloading of freight on the site. Port of Newcastle Operations Pty Ltd (PON) is now seeking to further modify DA 8137 to allow for a variation of the designation of areas within the approved DA boundary to increase the cargo storage area given the Koppers gantry has been removed and confirmed suitable for cargo storage by the Site Auditor and following release of an area reserved for a proposed lease that is not proceeding. PON proposes that the uncapped area will continue to remain unremediated until it is more economic for PON to remove the legacy BHP6 Berth and remediate the uncapped area. These changes to DA 8137 will form the second modification (MOD 2).

PON commissioned AECOM Australia Pty Ltd (AECOM) to review the proposed expansion of the Mayfield Cargo Storage area and determine any acoustic implications associated with the proposed expansion.

The Mayfield Cargo Storage Facility has two relevant approval/licence documents that control its operations. These documents are:

- Department of Planning and Environment issued *Development Consent (DA 8137)*, dated 30 June 2017; and
- Mayfield Concept Approval (MCP) (Application 09_0096) dated 16 July 2012 (latest modification 12 December 2014).

This acoustic review was conducted to determine compliance with the requirement of Development Consent (DA 8137). In addition, as the Facility lies within the MCP approval area, it requires noise emissions from the site to be consistent with the environmental assessment requirements of the MCP Approval. Consistency with the MCP Approval requirements has also been addressed in this report.

Section B1, B2 and B3 of Development Consent (DA 8137) outline the methods to determine compliance with the noise limits.

The Facility's noise emissions has achieved compliance with the applicable noise limits as documented in five previous annual (2017 to 2021) operational noise compliance assessments undertaken by AECOM:

1. Mayfield Cargo Storage Facility, Mayfield - Operational Noise Compliance Assessment (2017), 60553318-RPNV-01_0, dated 20 December 2017.
2. Mayfield Cargo Storage Facility, Mayfield - Operational Noise Compliance Assessment (2018), 60553318-RPNV-02_B, dated 15 February 2019.
3. Mayfield Cargo Storage Facility, Mayfield - Operational Noise Compliance Assessment (2019), 60620229-RPNV-02_0, dated 19 December 2019.
4. Mayfield Cargo Storage Facility, Mayfield - Operational Noise Compliance Assessment (2020), 60620229-RPNV-05_0, dated 2 March 2021.
5. Mayfield Cargo Storage Facility, Mayfield - Operational Noise Compliance Assessment (2021), 60620229-RPNV-09_0, dated 17 January 2021.

1.2 Mayfield Cargo Storage Facility description

1.2.1 Location

The Facility is located on the former BHP steelworks site in Mayfield North, adjacent to the Hunter River, approximately 5 kilometres north-west of Newcastle CBD.

The nearest residential areas to the site are located to the south-west of the Facility site at Mayfield, with the closest receptors in Crebert Street, approximately 800 metres from the nearest boundary of the

Facility. To the south-east there are residential receivers located in Carrington, approximately 2 kilometres away.

Figure 1 presents the existing Cargo Storage area, the proposed expansion Cargo Storage area and relevant noise assessment locations.

Figure 1 Site location and assessment receiver locations

2.0 Mayfield Cargo Storage Facility

2.1 Existing operational activities

The existing Facility comprises the operation of an approximately 12 hectares Port storage area within the Mayfield Concept Plan precinct, refer to Figure 1. The Facility provides for the storage of a range of freight and cargo, including but not limited to, project cargo such as wind turbine and tunnel boring machine components, large industrial components, luxury boats, electrical transformers and machinery, general cargo such as farm machinery, excavators, and construction machinery, breakbulk such as steel or timber products, and containerised cargo.

Freight is unloaded via 'ships gear' (ship mounted cranes and cargo handling equipment) onto trucks at Mayfield No. 4 Berth or other berths within the Port, and transported to the Cargo Storage Area for unloading. Distribution of cargo is then via truck to its final destination. Cargo may also be trucked from its point of origin, to the storage facility for consolidation and export via Mayfield No. 4 Berth or another berth within the Port.

General day-to-day activities, include moving or stacking of cargo. Plant and machinery used include reach stackers and forklifts for unloading, moving, stacking and loading cargo.

PON is in the process of commissioning two Mobile Harbour Cranes (MHCs) that would replace the use of 'ship gear' for freight handling at Mayfield No. 4 Berth. AECOM completed an acoustic assessment in 2021 of operational activities associated with the proposed MHCs, reference report 60620229-RPNV-07_0, Revision 0, dated 15 June 2021. The acoustic assessment concluded that the operation of the MHC would comply with all approval noise limits applicable to the Mayfield No. 4 Berth.

2.1.1 Operational noise sources

Operations at the site consist of the following activities:

Internal private access Roads	• moving trucks, idling trucks.
Industrial noise sources	• reach stackers • forklifts

2.1.2 Hours of operation

The operational hours for the existing Facility are Monday to Sunday, 24 hours per day.

2.2 Operational activities associate with the proposed expansion

The proposed expansion of the Cargo Storage Area would result in the operation of an approximately 19 hectares Port storage area within the Mayfield Concept Plan precinct, refer to Figure 1.

The proposal is for 'more of the same' cargo, just more to the additional space available. The outcomes associated with the proposed expansion of the Cargo Storage Area are outlined in Table 1.

Table 1 Expansion of the Cargo Storage Area outcomes

Item	Description
Cargo Storage Area	19 hectares
Operating activities	No changes to existing operating activities. No changes to cargo handling equipment. Similar cargo handling, e.g. wind turbine components, mining plant equipment, farm machinery, containerise cargo, bulk materials, etc.
Hours of operation	No changes (24 hours, 7 days per week)
Truck movements	No changes in truck volumes or truck routes

3.0 Operational Noise Limits

3.1 Development Consent (DA 8137)

3.1.1 Operational noise limits

Section B2 of the Development Consent (DA 8137) presents the operational noise limits that apply to the Facility, and are reproduced in Table 2.

Table 2 Operational noise limits

No.	MCP Receiver	Location	Day	Evening	Night		
			$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(15min)}$	$L_{Aeq(9hr)}$	$L_{A1(1min)}$
R1	**A**	1 Arthur Street, Mayfield	35	35	35	35	46
R2	**B**	2 Crebert Street, Mayfield	39	39	39	35	51
R3	**-**	24 Crebert Street, Mayfield	40	39	39	35	52
R4	**C**	32 Elizabeth Street, Carrington	35	35	35	35	41
R5	**D**	186 Fullerton Road, Mayfield	35	35	35	35	40

Notes:

1. Refer to Figure 1 to identify noise receiver locations.
2. Noise generated by the development is to be assessed in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the EPA's NSW Industrial Noise Policy.

Sleep disturbance requirements

Section B2 of the Development Consent (DA 8137) presented sleep disturbance criteria which are also provided in Table 2 as the L_{A1} criteria.

3.1.2 Mayfield Concept Plan Noise Quota

Section B3 of the Development Consent (DA 8137) provides the following with respect to MCP noise quota:

> *"B3. The Applicant must:*
>
> *a. ensure noise from the site does not exceed the noise quotas provided by the PON in accordance with the Site Noise Model; and*
>
> *b. comply with the directions of the PON in relation to the management of noise from the Site."*

3.1.3 Amenity noise requirements – Mayfield Concept Plan (MCP)

As the Facility is located within the MCP area, it is also subject to the noise requirements of the concept approval MCP Approval (09_0096MOD 2) (MCP approval).

Conditions 2.16 to 2.20 of the MCP approval outlines the operational noise and vibration requirements related to projects sites that are situated with the MCP area.

Condition 2.17 sets out noise limits for the cumulative noise impact of all projects associated with MCP. The MCP approval aims to address the cumulative noise impacts from all sites that will operate within the MCP area. It aims to prevent any individual site being designed to use up all of the MCP approval noise limits, which will then result in all other developments having overly stringent noise requirements, and development other areas of the MCP constrained.

PON has developed an approach for addressing the cumulative noise impacts by allocating noise quota to individual sites within the MCP area, in order for the entire site once fully developed to meet the overall noise limits set out in the MCP Approval. The overall noise criteria for the entire MCP site are presented in Table 3, and the noise quota for the Mayfield Cargo Storage Facility is outlined in Section 3.1.4. The MCP overall noise limits and quotas apply over the amenity assessment periods.

PON has developed a Cumulative Environmental Noise Management Tool (CENMT), which includes the development of a Site Noise Model as required by Condition 2.16 to address those matters listed in Condition 2.19.

The MCP noise quotas for the Facility were derived using the *MCP noise quota distribution tool* (*GIS Budget model*) which was developed for assessment of proposed sites within the MCP.

PON has developed a '*User guide*' (reference AECOM report 60289391.RPT01.01, latest version dated 15 July 2015) that provides guidance to future proponents on how to assess noise impacts from Project site that fall within the MCP area.

Table 3 Mayfield Concept Plan overall amenity noise criteria

Location	MCP overall approval noise limits, $L_{Aeq, period}$, dB(A)		
	Day (7.00 am to 6.00 pm)	Evening (6.00 pm to 10.00 pm)	Night (10.00 pm to 7.00 am)
A – 1 Arthur Street, Mayfield (Urban)	60	49	43
B – 2 Crebert Street, Mayfield (Urban)	60	50	43
C – 32 Elizabeth Street, Carrington (Urban)	57	44	45
D – Stockton (Suburban)	55	37	37

3.1.4 Mayfield Cargo Storage Facility, specific MCP requirements

3.1.4.1 Existing Cargo Storage Area

The MCP Cargo Storage Facility, Existing. specific amenity noise quota derived using the MCP CENMT are presented in Table 4. The quotas are based upon the existing Facility area presented in Figure 2.

Table 4 Summary of MCP noise quota for existing Cargo Storage Facility

Location	Cargo Storage Facility specific MCP noise quota, $L_{Aeq, period}$, dB(A)		
	Day (7.00 am to 6.00 pm)	Evening (6.00 pm to 10.00 pm)	Night (10.00 pm to 7.00 am)
A – 1 Arthur Street, Mayfield	51	40	34
B – 2 Crebert Street, Mayfield	51	41	34
C – 32 Elizabeth Street, Carrington	46	33	34
D – 186 Fullerton Road, Stockton	45	27	27

3.1.4.2 Proposed expansion of the Cargo Storage Area

Given that the proposal is to expand the existing Cargo Storage Area, new noise quotas derived using the MCP CENMT should be assigned the expanded Cargo Storage Area.

The MCP Cargo Storage Facility, proposed expansion, specific amenity noise quota derived using the MCP CENMT are presented in Table 5 The quotas are based upon the proposed expansion to the Facility area presented in Figure 2.

Table 5 Summary of MCP noise quota for proposed expansion to the Cargo Storage Facility

Location	Cargo Storage Facility specific MCP noise quota, $L_{Aeq, period}$, dB(A)		
	Day (7.00 am to 6.00 pm)	Evening (6.00 pm to 10.00 pm)	Night (10.00 pm to 7.00 am)
A – 1 Arthur Street, Mayfield	53	42	36
B – 2 Crebert Street, Mayfield	53	43	36
C – 32 Elizabeth Street, Carrington	48	35	36
D – 186 Fullerton Road, Stockton	47	29	29

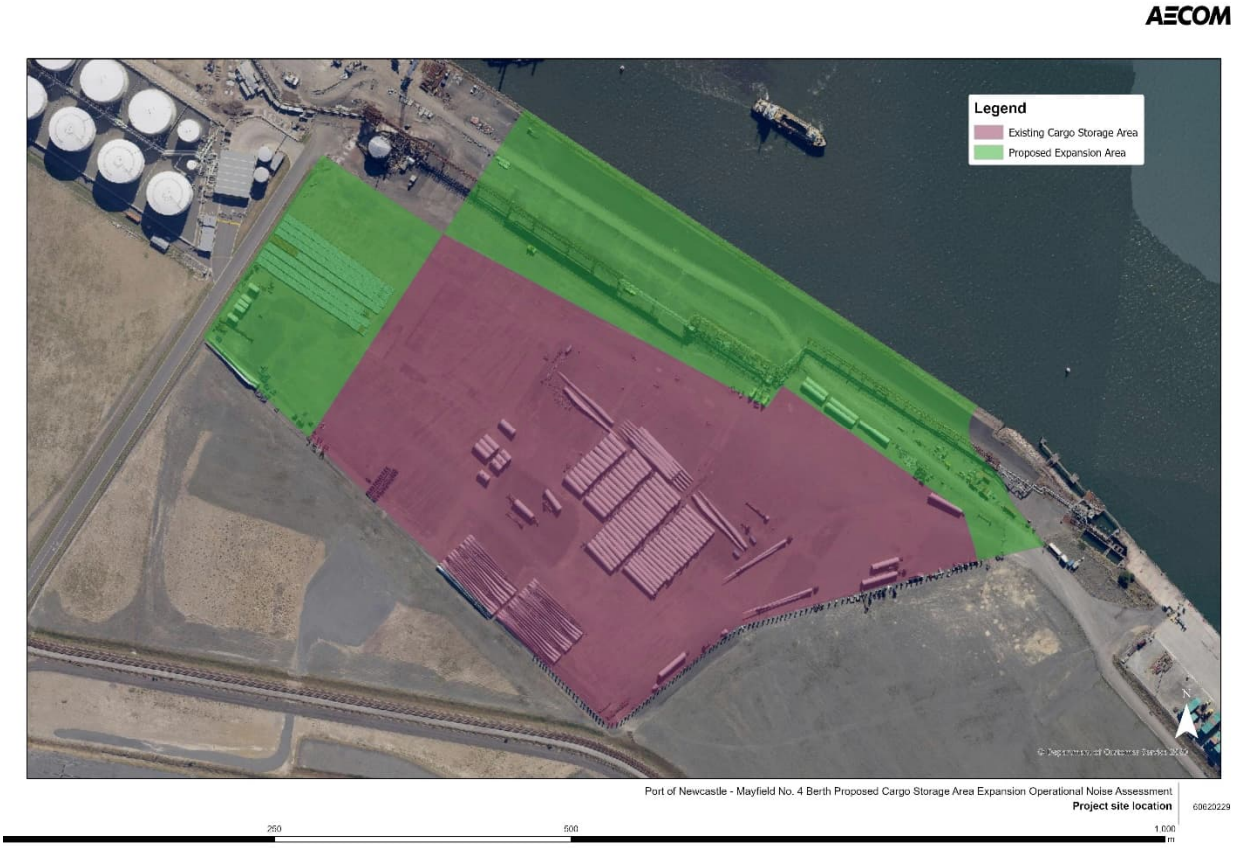

Figure 2 Facility site operational area for derivation of MCP noise quotas

4.0 Review of Acoustic Impact

The proposal for the expansion of the Cargo Storage Facility is for ‘more of the same’ cargo, just more to the additional space available. Therefore, the proposal is unlikely to have any adverse impacts on existing noise sensitive receivers surrounding the Mayfield Cargo Storage Facility. In addition, the Facility’s noise emissions has achieved compliance with the applicable noise limits as documented in five previous annual (2017 to 2021) operational noise compliance assessments undertaken by AECOM.

Given that the proposal is to expand the existing Cargo Storage Area, AECOM recommends that new noise quotas derived using the MCP CENMT should be assigned the expanded Cargo Storage Area.

The proposed new noise quotas are presented in Table 5 The quotas are based upon the proposed expansion to the Facility area presented in Figure 2.

Appendix A

Acoustic Terminology

Appendix A Acoustic Terminology

The following is a brief description of acoustic terminology that may have been used in this report.

Sound power level	The total sound emitted by a source
Sound pressure level	The amount of sound at a specified point
Decibel [dB]	The measurement unit of sound
A Weighted decibels [dB(A])	The A weighting is a frequency filter applied to measured noise levels to represent how humans hear sounds. The A-weighting filter emphasises frequencies in the speech range (between 1kHz and 4 kHz) which the human ear is most sensitive to, and places less emphasis on low frequencies at which the human ear is not so sensitive. When an overall sound level is A-weighted it is expressed in units of dB(A).
Decibel scale	The decibel scale is logarithmic in order to produce a better representation of the response of the human ear. A 3 dB increase in the sound pressure level corresponds to a doubling in the sound energy. A 10 dB increase in the sound pressure level corresponds to a perceived doubling in volume. Examples of decibel levels of common sounds are as follows:

0dB(A)	Threshold of human hearing
30dB(A)	A quiet country park
40dB(A)	Whisper in a library
50dB(A)	Open office space
70dB(A)	Inside a car on a freeway
80dB(A)	Outboard motor
90dB(A)	Heavy truck pass-by
100dB(A)	Jackhammer/Subway train
110 dB(A)	Rock Concert
115dB(A)	Limit of sound permitted in industry
120dB(A)	747 take off at 250 metres

Frequency [f]	The repetition rate of the cycle measured in Hertz (Hz). The frequency corresponds to the pitch of the sound. A high frequency corresponds to a high pitched sound and a low frequency to a low pitched sound.
Equivalent continuous sound level [L_{eq}]	The constant sound level which, when occurring over the same period of time, would result in the receiver experiencing the same amount of sound energy.
L_{max}	The maximum sound pressure level measured over the measurement period
L_{min}	The minimum sound pressure level measured over the measurement period
L_{10}	The sound pressure level exceeded for 10% of the measurement period. For 10% of the measurement period it was louder than the L_{10}.

L_{90}	The sound pressure level exceeded for 90% of the measurement period. For 90% of the measurement period it was louder than the L_{90}.
Ambient noise	The all-encompassing noise at a point composed of sound from all sources near and far.
Background noise	The underlying level of noise present in the ambient noise when extraneous noise (such as transient traffic and dogs barking) is removed. The L_{90} sound pressure level is used to quantify background noise.
Traffic noise	The total noise resulting from road traffic. The L_{eq} sound pressure level is used to quantify traffic noise.
Day	The period from 0700 to 1800 h Monday to Saturday and 0800 to 1800 h Sundays and Public Holidays.
Evening	The period from 1800 to 2200 h Monday to Sunday and Public Holidays.
Night	The period from 2200 to 0700 h Monday to Saturday and 2200 to 0800 h Sundays and Public Holidays.
Assessment background level [ABL]	The overall background level for each day, evening and night period for **each day** of the noise monitoring.
Rating background level [RBL]	The overall background level for each day, evening and night period for the **entire length** of noise monitoring.
Weighted sound reduction index [R_w]	A single figure representation of the air-borne sound insulation of a partition based upon the R values for each frequency measured in a laboratory environment.

*Definitions of a number of terms have been adapted from Australian Standard AS1633:1985 *"Acoustics – Glossary of terms and related symbols"*, the EPA's NSW Industrial Noise Policy, Noise Policy for Industry and the EPA's NSW Road Noise Policy.

Appendix C

Site Auditor Letter

RAMBOLL

ENVIRONMENT
& HEALTH

Port of Newcastle
Attn: Phil Carroll
Level 4 251 Wharf Road
Newcastle NSW 2300

By email: Philip.Carroll@portofnewcastle.com.au

Dear Phil

RE: BERTH M4 EXPANDED STORAGE - INTERIM AUDIT ADVICE LETTER ASSESSING IMPACTS OF UNREMEDIATED AREA

Date 30 November 2022

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Ref 318001581 FR096

As a NSW Environment Protection Authority (EPA) accredited Contaminated Sites Auditor, I am conducting a Site Audit (FR 096) in relation to the former BHP Mayfield site under the NSW *Contaminated Land Management Act 1997* (CLM Act). This initial review has been undertaken to provide an independent review of the suitability and appropriateness of Port of Newcastle's (PON's) proposal to utilise an expanded area for storage without finalising remediation of part of the site.

The audit relates to part of the former BHP Closure Area at 189 Selwyn Street, Mayfield, NSW 2304, as shown on **Attachment 1**. PON propose expansion of the current storage area in Area 1 Port Side, **Attachment 2**, to incorporate a larger footprint that includes wharf frontage.

The expanded area lies adjacent to part of the site where remediation by capping has not been completed. This area was not able to be remediated during previous capping works due to the ongoing operations of Koppers at this berth. These operations have now ceased and the Koppers Gantry and Pipework leading to this area has been removed and the cap reinstated, however the Koppers Gantry removal work has not extended to decommissioning of the Koppers Operational Area and suspended deck due to seawall instability.

The CSMP[1] describes the impacts of this area remaining unremediated as minor in relation to the overall effectiveness of the remediation strategy due to the exchange with seawater at this interface, meaning that contamination had already likely been flushed to the Hunter River.

Retention of this area in an unremediated state was agreed in the previous Site Audit:

[1] Contaminated Sites Management Plan, Mayfield Closure Area, 2016

Ramboll Australia Pty Ltd.
ACN 095 437 442
ABN 49 095 437 442

- 'Site Audit Report, Former BHP Steelworks Closure Area, Stages 1 and 2(a)' and Site Audit Statement GN493-1 dated December 2013

The previous Site Audit (GN493-1) envisaged that the remediation of this area would be completed once the Koppers infrastructure was removed prior to any human occupation of the site. A Section B Site Audit would then be prepared following remediation assessing compliance with the VRA.

The PON storage expansion does not include remediation of this area and proposes to isolate this area from access by fencing. Remediation of the suspended deck and associated infrastructure is complicated in nature and therefore is proposed to be completed as part of wharf upgrades required for the future development, where the future site development will include the final permanent cap across the site.

PON has asked that I consider the implications of leaving this area unremediated until the final site development. In this regard I make the following comments:

Risks to receptors from this area of the site relate to

1) the infiltration of groundwater causing migration of contaminants to the Hunter River. This aspect is minor when considering the area of this small section relative to the site area and the capping works completed previously and that the river interface likely means contaminants have largely been flushed from this area previously. This is consistent with the conclusions stated in the CSMP and agreed to in the previous Audit.
2) direct contact with soils by site users and inhalation of potential vapours by site users. In this regard PON propose to fence the area from access thereby restricting human occupation. This management control is considered to negate these risks adequately.

Management of this unremediated area of the site is detailed in the CSMP and therefore there are no specific management measures required, in addition to those outlined in the CSMP.

On the basis of the above, I consider that delay of remediation of the Koppers Operational Area until such time as the site is permanently developed is not significant in terms of the management of risks from the area to site receptors. The controls proposed are consistent with the current site management and are considered to be adequate. Remediation of the area is required prior to human occupation.

In relation to fence construction, any construction on the site is required to be completed under a works-specific EMP that is reviewed and approved by the Auditor.

Yours sincerely

Fiona Robinson
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Attachment 1: Site Description

Attachment 2: Site Condition at Completion of Capping Works

Aerial imagery captured by Nearmap on 16.04.2022

A4
1:11,000

RAMBOLL AUSTRALIA - GIS MAP File: 318001458-G-S-P001-SiteAudit-F001-Site_V01 27/04/2022

Legend

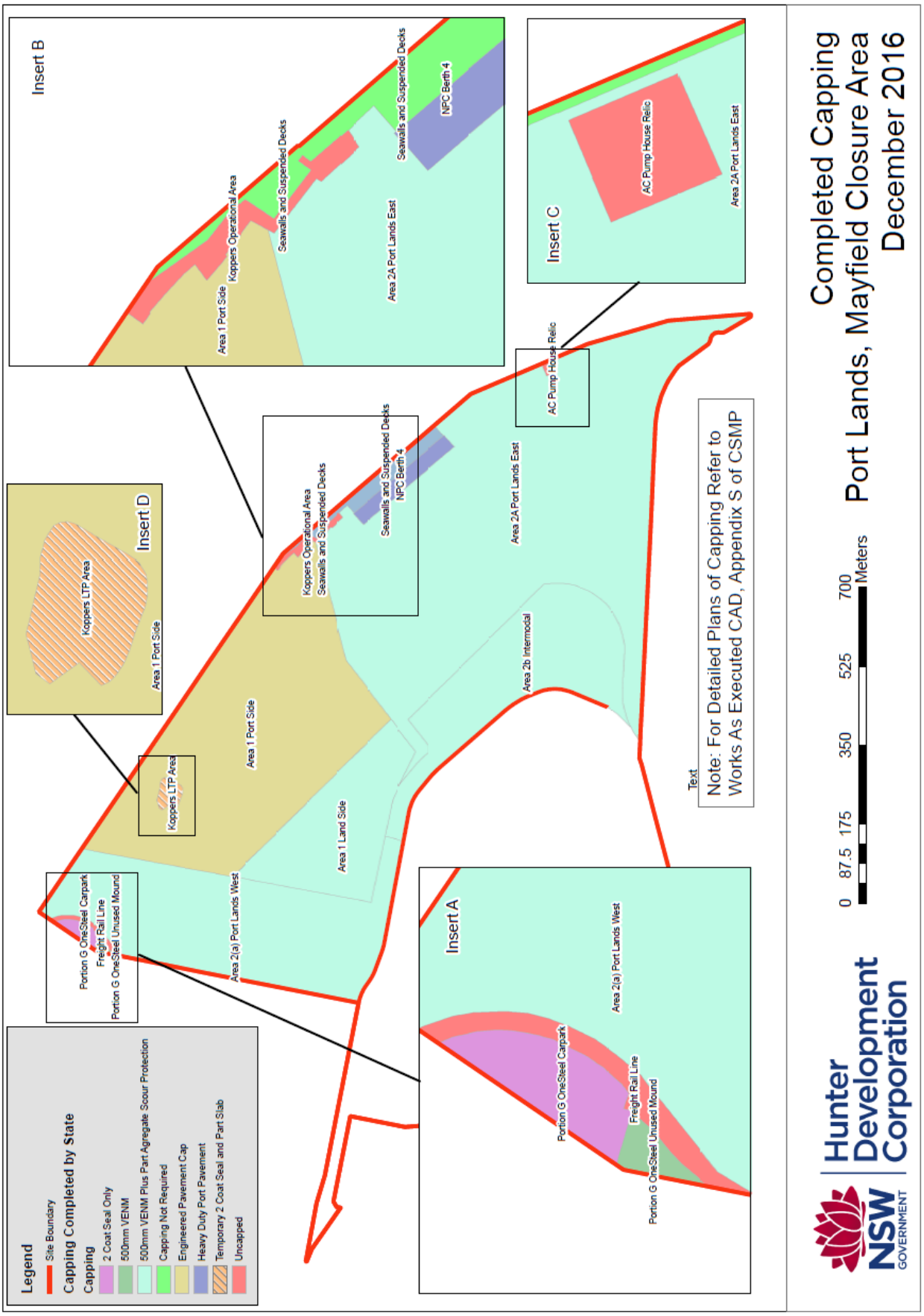
- DP1177466
- DP1191723
- DP1191982
- DP1229869

Site overview

Port of Newcastle - Section 28 Audit 2022

Attachment 1: Site Description

Attachment 2: Site Condition at Completion of Capping Works



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