

PORT OF NEWCASTLE PORT DEVELOPMENT PLAN 2015 - 2020





I am pleased to present Port of Newcastle's Port Development Plan 2015 – 2020. The purpose of this plan is to communicate anticipated development and trade opportunities within the Port of Newcastle over the next five years.

In July 2012 the Council of Australian Governments (COAG) endorsed the National Ports Strategy as part of a collaborative approach to the future development and planning of Australia's port and freight infrastructure. The National Ports Strategy encourages clear communication at a strategic level on how the development and operation of the Port and the freight corridors serving it will be integrated into the future development of the region or city in which the port is located. The Port Development Plan outlines Port of Newcastle's vision to maintain Newcastle's position as one of the leading and most efficient global-scale coal export ports and facilitate continued growth and development of existing and new trades in a sustainable manner.

The Port is a critical component of the economic success of the Hunter Region, New South Wales and Australia. It is strategically located within the northern catchment of New South Wales and is well positioned to capitalise on the established export supply chains of the Hunter Valley and beyond. Over the next five years we expect strong growth in coal export trade, alongside an increase in some non-coal commodities; namely, the import of bulk liquids such as fuels.

Port of Newcastle is committed to building and maintaining a strong relationship with its stakeholders, and will promote and support the prosperity of the Hunter Region and New South Wales.



Jeff Coleman
Chief Executive Officer

PORT DEVELOPMENT PLAN

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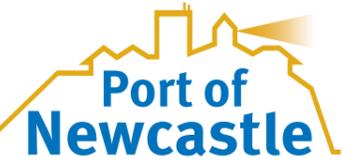
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PURPOSE AND VISION OF THE PORT DEVELOPMENT PLAN

1. PURPOSE AND VISION OF THE PORT DEVELOPMENT PLAN



1.1 Purpose of the Port Development Plan

Port of Newcastle (PON) is the operator of the major seaport located at Newcastle, Australia (the Port).

The purpose of the Port Development Plan (PDP) is to help inform the New South Wales (NSW) State Government, Government Agencies, and the local community of PON's development objectives over the coming five year period 2015 – 2020.

The key objective of the Port Lease is to maintain and enhance the Port as a major seaborne trade gateway for NSW.

PON manages the Port under a 98-year Lease from the NSW Government, which took effect on 30 May 2014. Under the terms of the Lease, PON is required to prepare a PDP within six months of the Commencement Date of the Lease, that is, by 30 November 2014. The PDP is to be updated within four years of the Commencement Date; and at least every five years thereafter.

The Port Lease describes the required content of the PDP as detailed in Annex A which also explains where the required information is provided in this PDP. In accordance with the Lease requirements, this PDP (and any future updates) will be provided to the NSW Government for review.

1.2 Vision and Mission of the Port of Newcastle

Vision

Our vision is to maintain Newcastle's position as one of the leading and most efficient global scale coal export ports and facilitate continued growth and development of existing and new trades in a sustainable manner.

Mission

Our mission is to promote and support the prosperity of the Hunter Region and NSW in a sustainable manner. We will:

- provide efficient port infrastructure to facilitate regional, state and national economic growth;
- maintain a safe and rewarding workplace for all employees;
- promote and facilitate improvements to supply chain performance;
- collaborate with stakeholders to deliver the benefits of trade growth, including with surrounding communities;
- manage environmental impacts of port operations and development;
- deliver effective commercial outcomes for customers; and
- undertake sustainable investment and deliver commercial returns for shareholders.





OPERATIONS AT THE PORT



2. OPERATIONS AT THE PORT

2.1 Overview of the Port

Australia's ports are essential for Australia's national productivity, living standards and quality of life. As an island nation largely dependent on maritime trade, our ports allow Australia to trade with the rest of the world and bring in revenue through exports to the global market. This has been strongly acknowledged through the endorsement of the National Ports Strategy by the Coalition of Australian Governments (COAG) which recognises that Australia's economic development and its ability to achieve national ambitions of a productive and fair society, will largely be shaped by its trading activities. Ports also allow the import of a wide range of essential goods ranging from consumer products to raw materials for industry.

Ports cannot operate without the broader land-side logistics chains outside the port boundaries, including the road and rail networks that carry goods to and from the ports. Ports and the associated logistics chains are therefore a fundamental component of Australia's economy.

The Port of Newcastle (the Port) is an essential part of Australia's port network. It is the largest coal export port in the world, and the largest bulk port on the east coast of Australia. It is also a key port for the import and export of a range of other cargoes including grains, bulk liquids and alumina.

The Port is recognised as a major strategic asset for the NSW economy, and an important trading gateway handling over \$15 billion in trade annually. The Port is a major employment generator, providing direct and indirect employment to thousands of people in Newcastle, the broader Hunter Region and beyond.

In 2014, the NSW Government announced that it would retain ownership of port land, while leasing the land, facilities and operations to a private sector operator over a 98-year period. A formal bid process for the Port was undertaken, and the successful bidder was PON. PON's shareholders comprise The Infrastructure Fund (managed by Australian-based fund manager Hastings) and China Merchants, a Hong Kong based conglomerate with a focus on three core businesses in transportation and infrastructure, financial services, and property development and investment.

Throughout the 98 year term of the Lease, the Port will continue to be a major seaborne trade gateway for NSW. Ongoing operations and future development under the Lease will capitalise on the development potential of the Port within the parameters of the Lease and various NSW regulatory approval processes.

PON is committed to the long-term development of the Port and will work closely with key stakeholders including customers, employees, Government bodies and local communities to meet our vision of facilitating trade growth and prosperity by providing a world class port.

2.2 Port Boundaries

The Port is defined by two separate boundaries: a legislated land planning boundary (which includes areas that PON does not manage), and the Port Lease Boundary (areas managed by PON). Figure 1 overleaf illustrates these boundaries.

The land planning boundary identifies land earmarked for port-related activity and is described in the NSW Government's State Environmental Planning Policy (Three Ports) 2013 (the 'Ports SEPP'). The SEPP Area includes the Port Lease Area as well as large areas of privately held land that are not managed by PON. This land is generally used by industrial facilities that benefit from their proximity to the Port, typically because they import or export materials and product.

The Port Lease Area is a subset of land within the Ports SEPP Area, and consists of land that is owned by the NSW Government and leased to PON. Much of the area is sub-leased to commercial organisations typically involved in import, export and other trade activities. The Port Lease Area includes Core Port Land which is restricted to specific port uses, as detailed in Section 4.2.



Land within the Ports SEPP Area that is owned by the NSW Government but falls outside the Port Lease Area, includes:

- the Channel and adjoining waterways, owned by Roads and Maritime Services (RMS);
- Nobby's Headland, management of which remains with the NSW Government; and
- Industrial Drive, Tourle Street, Cormorant Road and Teal Street, owned by Roads and Maritime Services (RMS);
- the Intertrade Site at Mayfield, which is currently managed by the Hunter Development Corporation (HDC).

PON has rights to access and use the Channel and adjacent waterways under related arrangements with RMS.

References to 'the Port' in this PDP mean the land, Channel and adjacent waterways used by PON.



Figure 1
Port SEPP and Port Lease Areas

LEGEND

- Core Port Land
- Non Core Port Land
- Main Channel - 15.2m
- The Cut and The Basin Channel - 12.8m
- Throsby Channel - 10m
- Swing Basin
- SEPP Boundary



2.3 Roles at the Port

The NSW Government is the Port landlord, and retains an interest in the long-term success of the Port. The NSW Government has set the overall objective for the Port and its ongoing development through the Port Lease and the Ports SEPP.

PON is the manager of the land within the Port Lease Area and the operator of the Port. This involves (but is not limited to) vessel scheduling activities; control of a range of physical Port assets; sub-leasing land; maintenance dredging and hydrographic surveying at the Port.



Much of the Port Lease Area is occupied by independent companies operating their own facilities on land leased from PON. These companies are responsible for their own commercial and environmental performance. They hold their own planning consents, environmental licences and permits, and are directly regulated by a range of Commonwealth and State Government authorities.

A range of other businesses operate at the Port but do not hold long-term leases over land. These Port Users include shipping lines, shipping agents, stevedores, freight forwarders, rolling stock operators, road transport operators and other service providers. Like Port Tenants, Port Users are independent organisations that manage their own activities and are responsible for their own commercial and environmental performance.

The Port Authority of NSW (PANSW) and the Harbour Master play an essential role at the Port. PANSW retains responsibility for certain key activities and regulatory matters at the Port such as provision of pilotage services and emergency response to oil or chemical spills. PANSW is also responsible for the management of Nobbys Headland.

A range of Government regulators are responsible for enforcing compliance with legislative requirements applying to PON, Port Tenants and Port Users. State and Commonwealth regulators cover issues ranging from environmental performance to quarantine control, and have various powers of enforcement at individual facilities within the Port.

The roles and responsibilities of entities at the Port are summarised in Table 1.

TABLE 1 OVERVIEW OF ROLES AND RESPONSIBILITIES AT THE PORT

Main Role	Organisation	Roles and Responsibilities
Port Operator	Port of Newcastle (PON)	<p>Port Lessee and Port Manager responsible for management and operation of the port through:</p> <ul style="list-style-type: none"> control of a range of Port assets including: <ul style="list-style-type: none"> approximately 780 hectares (Ha) of land; wharf infrastructure; a number of operational vessels including the <i>David Allen</i> dredge; a number of roads and two private rail sidings; northern and southern breakwaters that protect the entrance to the Port; and most navigational aids; rights to the use of berthing boxes and Channel; management of coal terminal leases under a management agreement with Port Authority NSW; vessel scheduling in compliance with Ship Handling Guidelines using the Port Authority NSW vessel traffic systems; maintenance and capital dredging and hydrographic surveying at the Port; reporting of port operations to the NSW State Government; assistance with emergency response to incidents at the Port; member of the Hunter Valley Coal Chain Coordinator (HVCCC).
Port Landlord	Port of Newcastle Lessor Pty Limited	<p>NSW State Government owned entity that undertakes the Port Landlord role for NSW State Government:</p> <ul style="list-style-type: none"> Owner of port freehold land and improvements; and Lessor to PON under the Port Lease.
Port Authority	Port Authority of NSW (PANSW)	<p>The Port Authority of NSW began operations on 1 July 2014, incorporating the merged Sydney, Port Kembla and Newcastle Port Corporations. PANSW retains responsibility for certain management and operational functions across the Port, including:</p> <ul style="list-style-type: none"> pilotage services and the Harbour Master function (including promulgation of depths) marine safety regulation; operation of the Vessel Traffic Information Centre (VTIC) responsible for all vessel communications; marine pollution regulator and combat agency; holder of a Port Safety Operating Licence (PSOL), including responsibilities in: <ul style="list-style-type: none"> incident reporting; and emergency response (including oil or chemical spill response) administration of Dangerous Goods legislative requirements at the Port; permit notifications (e.g. re: dangerous goods, bunkering or hot works); and administrator of the existing coal chain Capacity Framework Arrangements (CFA) at the Port.
Waterways Landowner	Roads and Maritime Service (NSW State Government agency under Transport for NSW)	<ul style="list-style-type: none"> owner of the marine areas of Newcastle Harbour; provides access rights and obligations to PON for use and dredging of berth boxes, swing basins and Channel areas owned by RMS; and compliance role for safety of roads and waterways within the Port to the extent that they are open to the public.

Main Role	Organisation	Roles and Responsibilities
NSW Environmental Regulator	NSW Environment Protection Authority (EPA)	<ul style="list-style-type: none"> responsible for regulating a wide range of activities at the Port and monitoring compliance with legislation and statutory instruments (including issue of, and monitoring compliance with, Environment Protection Licences); and covers issues such as air emissions, noise, waste, water quality, contaminated sites, dangerous goods, hazardous materials and pesticides.
National Environmental Regulator	Commonwealth Department of the Environment	<ul style="list-style-type: none"> responsible for regulating certain federal environmental requirements at the Port, mainly relating to matters of national environmental significance.
State Planning Regulator	NSW Department of Planning and Environment	<ul style="list-style-type: none"> consent authority for developments within the Port Lease Area including State Significant Development.
Local Planning Regulator	Newcastle City Council	<ul style="list-style-type: none"> certification role for specific types of developments under the Complying Developments framework within the Port Lease Area; consent authority for developments outside the Port Lease Area (except in the case of State Significant Developments); and regulatory compliance role for certain activities across the Port.
State Safety Regulator	NSW Workcover	<ul style="list-style-type: none"> regulator for workplace safety issues.
Management of coal logistics to Port	Hunter Valley Coal Chain Coordinator (HVCCC)	<ul style="list-style-type: none"> centralised planning function for the Hunter Valley Coal Chain that consists of numerous independent operators; plans and coordinates cooperative daily operation and oversees long-term capacity; and membership comprises of coal producers and terminals, track, train and port service providers.
Management of coal rail lines entering the Port	Australian Rail Track Corporation (ARTC)	<ul style="list-style-type: none"> lease holder/controller of rail track infrastructure providing access to train operators, management and maintenance of the network infrastructure, and capital investment in the rail corridors.
Management of major road and rail projects	Transport for NSW	<ul style="list-style-type: none"> NSW State Government agency overseeing major transport projects.
Port Tenants	Companies who lease land from PON	<ul style="list-style-type: none"> wide range of companies managing their own facilities including major port terminal operators such as Port Waratah Coal Services (PWCS), Newcastle Coal Infrastructure Group (NCIG) and Graincorp; and responsible for their own compliance with relevant legislation, approvals, licences and lease conditions associated with operations within the Port.
Port Users	Companies who access the Port for commercial purposes but do not lease land	<ul style="list-style-type: none"> wide range of companies managing their own operations; and responsible for their own compliance with relevant legislation, approvals, licences and lease conditions associated with operations within the Port.
Land Remediation	Hunter Development Corporation (HDC)	<ul style="list-style-type: none"> State Government agency responsible for remediation of the former BHP Steelworks area of the Port at Mayfield, and for closure of the former landfill area at Kooragang.

2.4 The Channel and Berths

The main Channel of the Port extends from the breakwaters at the entrance to the harbour, to the westernmost berth (Kooragang Berth 10, or K10). The Channel is dredged to 15.2m, with additional depth at the mouth of the Channel to allow for vessel movement in ocean swell conditions. Shipping channels are illustrated in Figure 1, and berths are shown in Figure 2.



2.4.1 The Channel

PON maintains the depth of the Channel by undertaking approved maintenance dredging, as the Channel is subject to sedimentation from the Hunter River system upstream. Maintenance dredging is undertaken by the PON dredger, the *David Allan*. Material resulting from maintenance dredging is transported by the *David Allan* to an approved offshore spoil ground approximately three kilometres to the south east of Nobbys Head.

2.4.2 Berth Facilities

Port berths are identified in Table 2 and are a mix of tenant operated berths and common user berths managed by PON.

The Port has nine dedicated coal berths (Kooragang Berths 4-10 and Dyke 4 & 5). PWCS and NCIG operate the coal terminals under long term leases, and own and maintain the berth infrastructure. The Port has 11 berths allocated to handling dry bulk, bulk liquids, break bulk, passengers, and general cargo including containers, project and other cargoes.

Tenant operated berths are leased to tenants under both long and short term agreements, and are managed and maintained by the tenants. These berths typically have significant tenant owned infrastructure.

Common user berths are managed and maintained by PON. Tenants and licensed stevedores provide the cargo handling services at these berths. Stevedores operate under commercial licences that include terms relating to compliance with legislation and PON operating procedures. Some of the common user berths also have predominant users who account for the majority of the trade at that berth and have installed dedicated infrastructure.

TABLE 2 SUMMARY OF CURRENT BERTHS BY PRECINCT AT THE PORT OF NEWCASTLE

Berth	Operator	Key Products
Carrington Precinct		
East Basin 1 & 2 (EB1, EB2)	Patrick (Tenant)	<ul style="list-style-type: none"> Break bulk General cargo Container
West Basin 3 (WB3)	Common User (predominant user is GrainCorp)	<ul style="list-style-type: none"> Grain Frozen orange juice
West Basin 4 (WB4)	Common User	<ul style="list-style-type: none"> Rolling stock Project cargo General cargo Container
Channel Berth (CB)	Common User	<ul style="list-style-type: none"> Cruise vessels
Dyke 1 (D1)	Common User (predominant user is BP)	<ul style="list-style-type: none"> Bulk liquids
Dyke 2 (D2)	Common User (predominant users are ConPorts and NAT)	<ul style="list-style-type: none"> Grains Mineral concentrates
Dyke 4 & 5 (D4, D5)	PWCS (Tenant)	<ul style="list-style-type: none"> Coal
Mayfield Precinct		
Mayfield 4 (M4)	Common User	<ul style="list-style-type: none"> General cargo Project cargo Container Dry bulk Bulk fuel
BHP 6	Koppers Carbon Materials & Chemicals (predominant user)	<ul style="list-style-type: none"> Tar and pitch
Walsh Point Precinct		
Kooragang 2 (K2)	Common User	<ul style="list-style-type: none"> Ammonia Cement Meals and grains Coke and coking coal Fertiliser Wheat Edible oils
Kooragang 3 (K3)	Common User (predominant users are KBF / Tomago Aluminium)	<ul style="list-style-type: none"> Alumina Petroleum coke Fertiliser Acids Other bulk and general cargo
Kooragang Precinct		
Kooragang 4, 5, 6 and 7 (K4 to K7)	PWCS (Tenant)	<ul style="list-style-type: none"> Coal
Kooragang 8, 9 and 10 (K8 to K10)	NCIG (Tenant)	<ul style="list-style-type: none"> Coal

2.5 Land Precincts

The Port SEPP Area is divided into four precincts as shown in Figure 2: Carrington, Mayfield, Kooragang and Walsh Point. Each Precinct includes land within and outside the Port Lease Area. The following section describes the activities in each Precinct that fall within the Port Lease Area.

2.5.1 Carrington Precinct

Carrington is one of the oldest parts of the Port that is still in operation and includes approximately 102 Ha of waterfront industrial land. It is close to the residential areas in Carrington, Stockton and the Newcastle CBD and foreshore. It is a diverse area, catering for a range of cargoes including general cargo, project cargo, dry bulk, bulk liquids, and ship repair and maintenance.

The Carrington Coal Terminal (CCT) was established in 1968 at the northern end of the precinct and is operated by PWCS. It incorporates the coal terminal and associated loading berths (D4 and D5).

Ship building and maintenance activities have operated at the southern end of Carrington for many years. The Forgacs ship maintenance company operates a facility in the south-west of the precinct fronting Throsby Channel.

ConPorts and Newcastle Agri Terminal have rail receipt and storage facilities on the eastern side of Carrington, exporting through D2 Berth. BP Australia pipes fuel from the D1 Berth to its fuel terminal outside the Port Lease Area (but within the broader Carrington Precinct). The Channel Berth at Dyke Point services passenger vessels such as cruise ships. A range of general cargo and containers, as well as steel, aluminium and timber packs are handled at the East Basin Distribution Centre operated by Patrick, using Berths EB1 and 2. Graincorp operates silos outside the Port Lease Area (but within the broader Carrington Precinct) and exports grain across Berth WB3. Concentrated orange juice is imported to Citrosuco's facility in this area. PON operates a common user berth at WB4 which handles rolling stock as well as a large range of other cargo.

The Carrington Precinct also contains critical port services infrastructure including the Svitzer tug base, the PB Towage tug base and the helicopter pad operated by the Port Authority of NSW. The helipad is essential port infrastructure that allows Port Authority of NSW Marine Pilots to be transferred to and from ships waiting offshore.



Carrington is well serviced by road and rail infrastructure, including a designated heavy vehicle truck route designed to reduce the potential for traffic and noise conflicts within the residential areas of Carrington. Rail access is provided by the Moorandoo Siding, which moves coal, grain, steel and mineral concentrates into the precinct. WB4 is the only berth on the eastern seaboard with direct rail access at the berth face.

2.5.2 Mayfield Precinct

The Mayfield Precinct contains large areas of freehold land developed for heavy industry including the Arrium Limited site (formerly OneSteel). It also includes the former BHP Steelworks site which operated in the location from 1915 to 1999. The former Steelworks site now contains the Intertrade site and the Mayfield Development Site. The Mayfield Development Site represents the largest vacant port land site on the eastern seaboard, with direct Channel frontage and potential for deep water berthing, providing a significant opportunity for growth within the Port.

Currently there is one common user berth servicing the area (Mayfield 4), which is used as a dry bulk and general cargo berth. The berth also currently services the Stolthaven Bulk Fuels Terminal via a temporary pipeline until a dedicated bulk liquids berth is constructed. The Stolthaven Bulk Fuels Terminal is the first facility to be developed in the Mayfield Development Site.

BHP 6 is used by Koppers Australia for loading and unloading coal, tar and pitch products. Koppers main plant is located outside the Port Lease Area (but within the broader Mayfield Precinct) with a pipeline that runs from the plant to Berth BHP6. Some Koppers plant consisting of two continuous tar distillation units and a naphthalene still are also located within the site.

The Mayfield Precinct is well serviced by road and rail infrastructure and there is sufficient land to allow for expansion of the rail for specific uses within the precinct.

The Mayfield Development Site adjoins the Intertrade Site, which consists of 52 Ha of land currently managed by HDC. The Intertrade Site will provide an important buffer between Port uses and residential areas in the suburbs of Mayfield and Tighes Hill.



2.5.3 Kooragang Precinct

The Kooragang Precinct is located on Kooragang Island on the northern side of the Port. It is the primary coal precinct containing two coal terminals operated by coal export companies PWCS and NCIG.

The PWCS Kooragang coal stockyard is located on private land, however the PWCS berths (K4 to K7) are located within the Port Lease Area. The NCIG coal stockyard and associated berths (K8 to K10) are located within the Port Lease Area. The companies have long-term leases with PON over the relevant land.

In addition, planning for a fourth coal terminal (T4) is currently being undertaken by PWCS and, if approved, would be located west of the existing NCIG terminal on land owned by PWCS, as well as land to be leased from PON.

The Kooragang Precinct is supported by rail access via the Kooragang spur line, with all coal transported to the terminals via rail. Road access to Kooragang is via the Tourle Street and Stockton Bridges.

2.5.4 Walsh Point Precinct

The Walsh Point Precinct is located on the eastern side of the Port with frontage to both the South and North Arms of the Hunter River and includes approximately 101 Ha of land controlled by PON. The precinct also includes private land holdings that are occupied by a range of businesses including a number of port customers.

PON's land is currently used for the import, export and storage of non-coal products, as well as a variety of small scale industrial uses such as metal recycling. Products imported and exported across K2 and K3 Berths include dry bulk products (such as cement, grains and raw materials for Tomago Aluminium Smelter) and bulk liquids such as fuel and vegetable oil.

The centre of Walsh Point is occupied by heavy industry that lies outside of the Port Lease Area, including fertiliser manufacturer Incitec Pivot (to the north) and fertiliser manufacturer and mining industry chemical supplier Orica (to the south). These facilities are on freehold land and also import products such as ammonia through the Port.

Rail access is via the Kooragang spur and a level crossing over Cormorant Road. Rail access is managed with defined operating parameters due to competing access requirements within the coal trade on Kooragang Island.

The precinct incorporates significant back-up land for port side storage, particularly on the eastern side of Walsh Point, which consists of a number of undeveloped lots.



2.6 Transport Networks

Integrated road and rail transport networks are essential for the sustainable operation of the Port. The Port is serviced by existing rail and road networks operating within the port boundaries, together with essential connections to the wider external rail and road transport networks.

Coal is the principal commodity handled at the Port, and is transported to the Port almost exclusively by rail. The Hunter Valley Coal Chain Coordinator (HVCCC) is responsible for planning and scheduling the movement of coal through the Hunter Valley Coal Chain. Other key commodities handled on the rail network are grains and mineral concentrates. Most other commodities are transported to the Port by road.



2.6.1 Existing External Transport Networks

The Port is serviced by two rail networks that are part of the Australian Rail Track Corporation's (ARTC) National Rail Interstate Network:

- the North South Rail Corridor connecting Brisbane, Sydney and Melbourne; and
- the Hunter Valley Rail Network connecting the Port to the Hunter Valley and Western NSW.

Both these networks are connected to the Port by two short spur lines, the Morandoo siding to the Carrington and Mayfield precincts and the Kooragang siding connecting to Kooragang Island and Walsh Point.

The North South Rail Corridor is used to haul coal to the Port from mines on the Central Coast and from Gloucester to the north. The North South Rail Corridor also provides access to the Port for a range of other cargoes.

The Hunter Valley Rail Network is used to haul coal to the Port from the Hunter Valley, Ulan and the Gunnedah Basin. The Hunter Valley Rail Network is also used to bring wheat and other grains from north-west NSW, mineral concentrates from mines in western NSW and other trades from western NSW.

Access to the Hunter Valley Rail Network is provided through ARTC’s Hunter Valley Access Undertaking which provides a mechanism for access holders to use and fund the expansion of the network. ARTC publishes an annual Hunter Valley Corridor Capacity Strategy which sets out its approach to expanding capacity on the corridor. Growth in coal export volumes through the Port will be dependent upon the network having capacity to haul coal to the Port and ARTC being able to expand capacity to meet demand. The mechanisms that identify the expansion task for ARTC are aligned with requirements for terminal capacity at the Port through producers holding contractual commitments for access to both track and terminals. These mechanisms along with the co-ordination provided by HVCCC provide processes for the coal producers to dictate the infrastructure requirements to export coal through the Port.

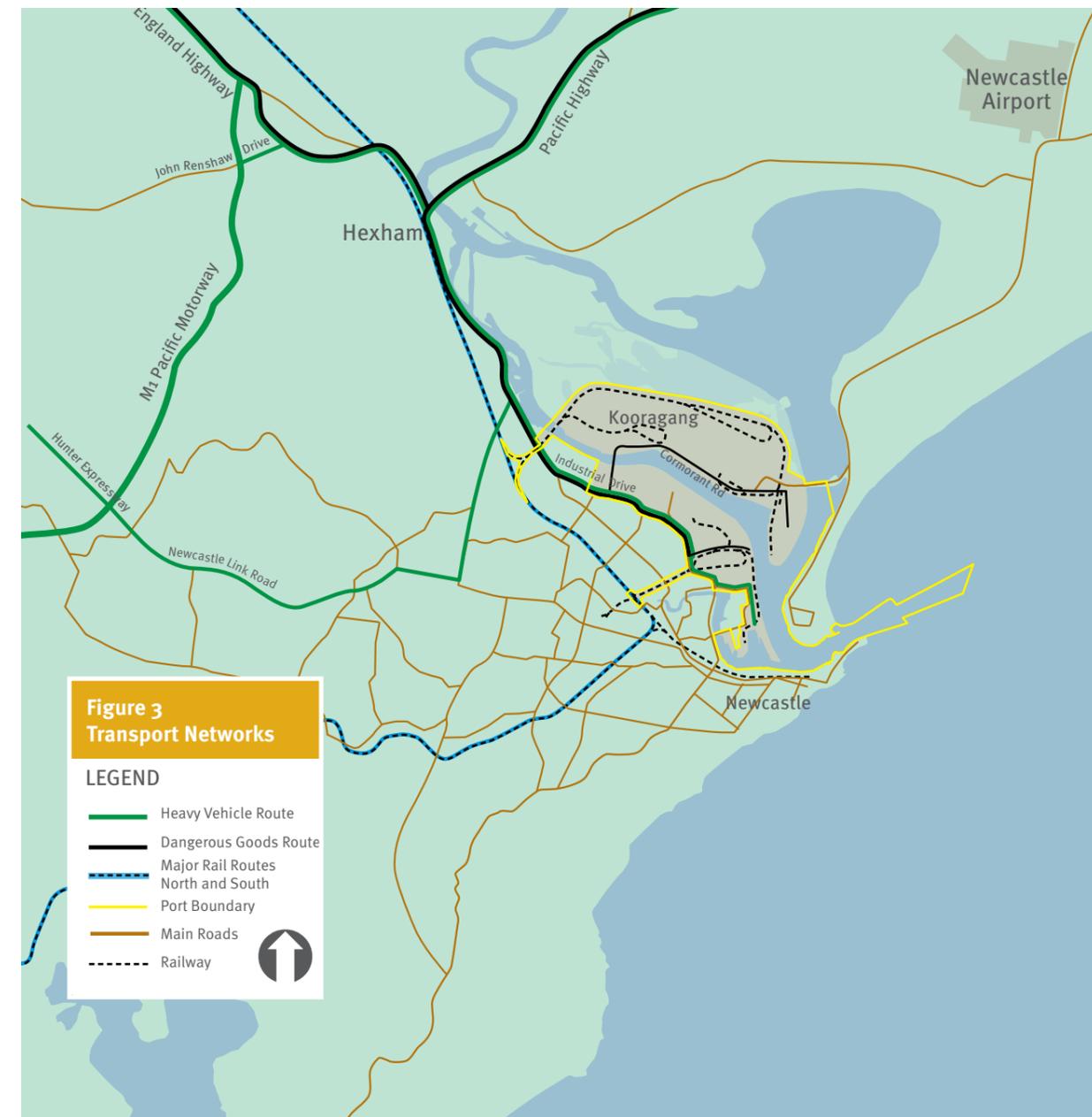
Existing Port operations and efficiencies are also reliant on continued provision and ongoing strengthening of the broader external road network. The Pacific Motorway (M1), Pacific Highway, Hunter Expressway, New England Highway, Industrial Drive, Tourle Street and Cormorant Road are primary freight roads that provide interstate access and link major regions across NSW. These roads form the primary freight route to the Port and provide relatively congestion free heavy vehicle freight movements to and from the Port to regional, intrastate and interstate markets. The ongoing protection of these transport corridors from urban encroachment is vital for continued efficient Port operations and to minimise transport impacts within the broader community. The close proximity of these national and state roads to the Port provide for efficient movement of freight to and from the Port, minimising transport movement impacts within urban areas.

2.6.2 Port Transport Networks

PON owns several rail lines within the Port Lease Area and is the Rail Infrastructure Manager for two private sidings, No.1 West Basin (East), Carrington and No. 2 West Basin (West), Carrington. These rail lines run onto the West Basin 3 and 4 berths and are used for direct unloading and assembly of rolling stock at the berth.

There are additional rail facilities within the Ports SEPP Area which are managed and maintained by tenants, ARTC or OneSteel. These include the NCIG Rail Loop, the ConPorts private siding, the Newcastle Agri Terminal rail siding, the Mayfield Site rail line and the Kooragang Island Spur line.

PON also manages a number of road assets within the Port Lease Area, including part of Darling Street in Carrington, and Greenleaf and Heron Roads at Walsh Point. These roads are strategically important to managing access to the Port land and berth infrastructure. They also service other industries such as OneSteel and Orica that are located within the broader Port SEPP area.



2.7 Environment and Community

PON recognises the importance of the Port to the community and broader region, and will strive to develop and maintain a strong relationship with all its stakeholders.

2.7.1 Environmental Management

Any proposed development by PON needs to meet stringent environmental requirements set in legislation (as described in later chapters). PON's existing activities are subject to a wide range of environmental conditions set through licences, approvals and lease conditions. PON manages environmental performance through an Environmental Management System (EMS) that has been developed in accordance with the requirements of the International Standard on EMS (ISO14001).

In addition, PON has prepared an Environmental Management Plan (EMP) that defines the systems and controls applied by PON to deliver high standards of environmental practice and ensure compliance with the environmental conditions of the Lease and applicable environmental legislation.

PON encourages all Port Tenants to act in an environmentally responsible manner and requires the submission of an environmental management plan as part of all new lease arrangements. This supports compliance with relevant federal, state and local regulations by Port Tenants and encourages the adoption of industry best practice and management. While PON does not directly manage or regulate the activities of Port Tenants, PON requires Port Tenants to comply with legislation and encourages good environmental and business practices.

In addition PON is aware that the decades of use by heavy industry has left a legacy of contamination in some areas of the Port, and is committed to managing this in accordance with regulatory requirements.



2.7.2 Community Engagement

The Port of Newcastle was Australia's first commercial port with the export of coal in 1799. Since then, growth and development of the Port has underpinned the economic success and identity of the city. Port of Newcastle seeks to form meaningful partnerships with neighbouring communities and port businesses and industries, and to deliver the benefits of trade growth.

PON interacts with the community and business in a number of forums such as:

- the Port of Newcastle Community Liaison Group, comprising representatives of the community, business, industry and government; and
- community and local industry grants through the Port of Newcastle Community and Industry Partnerships Program.

2.7.3 Port City Planning

The revitalisation of the Newcastle city centre and strengthening links to the harbour foreshore as a place to live, work and play will result in increased density of dwellings in the city centre, and increased demand for access to the waterfront for leisure activities.

It is critical that broader land use planning as well as individual developments recognise the proximity of the Port and the transport corridors that service it. A key theme of the National Ports Strategy is for land planning and corridor preservation to balance freight requirements with community and traffic amenity.

The development of residential areas and other sensitive uses around the Port requires the careful consideration of the potential for land use conflicts. Height restrictions for development around the city centre should be cognisant of the land based navigation aids which are critical to the safe navigation of vessels through the harbour. Further, local planning controls should encourage the incorporation of suitable mitigation or amelioration measures to counter potential conflicts.

Growing awareness and changes in the accepted frameworks for management of key environmental issues will continue to influence how the Port operates and is developed in the future. Planning for the Port will need to consider potential for increased occurrence and severity of storm events and rising sea levels; potential interactions with and impacts to the significant and sensitive Ramsar listed Hunter Wetlands National Park that bounds the Port to the north; and ongoing maintenance and management of local heritage items located across the Port.



STRATEGIC CONTEXT

3. STRATEGIC CONTEXT



Various levels of Government have developed inter-connected long-term strategies that describe infrastructure and transport needs in the nation, state and region. These strategies typically recognise the Port as a key economic asset, and also identify a range of infrastructure projects that support trade at the Port, generally by improving transport networks in the region.

The National Ports Strategy 2012 and National Land Freight Strategy 2013 are the principal Commonwealth Government policy statements on the freight and ports sector.

The strategic planning framework guiding infrastructure within NSW is the NSW 2021 Plan, supported by the State Infrastructure Strategy 2012-2032, the NSW Long Term Transport Master Plan 2012, and the NSW Freight and Ports Strategy 2013, which provide progressively more policy detail on freight and port infrastructure development priorities to create greater efficiencies and improvements. Regional development priorities are addressed in sub-plans for the Hunter Region.

PON is supportive of the planned infrastructure actions detailed in government policies and strategies, including the key strategies detailed in Table 3 specific to ports and the Hunter Region.

TABLE 3 GOVERNMENT STRATEGIES INFLUENCING DEVELOPMENT AT THE PORT

	Timeframe for Implementation i.e. with 2015 - 2020	Key Objectives / Features	Key Projects relevant to the Hunter Region and the Port	Benefit to the Port
National Ports Strategy and National Land Freight Strategy	2012 +	Provides a coordinated approach to the future development and planning of Australia's major ports and freight infrastructure to drive the development of efficient, sustainable ports and related freight logistics.	The Strategies do not specifically identify projects, rather provide policy direction for State government in the future planning and development of Ports.	Greater strategic planning and more efficient assessment processes for development will provide greater certainty for the Port and the community as it grows and develops.
NSW State Infrastructure Strategy 2012	2012 – 2032	Identifies the urgency to invest in projects to support mining and other industries as well as improve quality of life.	<ul style="list-style-type: none"> Bridges for the Bush program to improve freight efficiency; Detailed assessment of the proposed upgrade to the M1 to Raymond Terrace. 	Improved freight transportation and reduction in congestion at end of the M1 will provide for more efficient movement of freight to and from the Port.
NSW Long Term Transport Master Plan 2012	2012 – 2032	Proposes better use of existing assets, investment in new infrastructure, and balanced policy and regulation. The plan identifies key actions going forward for the delivery of transport requirements.	<ul style="list-style-type: none"> Growth Centre Roads Program including the delivery of the Newcastle Inner Bypass, Newcastle Link Road and Newcastle Road corridor improvements; Newcastle Rail Bypass and Northern Sydney Freight Corridor to add freight capacity, reduce freight transit times and alleviate key level crossing delays; Upgrades to the link between the F3 Freeway (M1)/Hunter Expressway (M15) interchange and Broadmeadow in Newcastle; Assessing options to reduce freight movements in Scone and associated delays; Consideration to extending the F3 (M1) to Raymond Terrace; New England Highway (A15) upgrades to address safety and congestion issues as they emerge. Construction of the strategic rail freight corridor at Fassifern and the Hexham rail bypass; Development of a strategy to address constraints on rail operations in the Lower Hunter; and Implementation of rail freight infrastructure enhancements. 	Greater efficiencies in freight movements to and from the Port through road corridor improvements and congestion reduction, increased freight capacity and reduction in level crossing delays.

TABLE 3 GOVERNMENT STRATEGIES INFLUENCING DEVELOPMENT AT THE PORT

	Timeframe for Implementation i.e. with 2015 - 2020	Key Objectives / Features	Key Projects relevant to the Hunter Region and the Port	Benefit to the Port
NSW Freight and Ports Strategy 2013	2013 - 2023	Outlines strategic improvement actions across the three program areas of network efficiency, network capacity and network sustainability. The strategy identifies short to medium term projects (i.e. over the next 10 years) to positively impact on freight movements via road and rail networks.	<ul style="list-style-type: none"> • Duplication of Tourle Street bridge and approaches, and additional capacity on Cormorant Road; • Lower Hunter Freight Corridor; • Bridges for the Bush program; • Northern Sydney Freight Corridor; • Rail passing loops at Awaba; • M1 improvements, including Kariong Interchange ramp upgrades, Kariong Interchange to Somersby Interchange, and Weakleys Drive Intersection upgrade; • Adamstown Level Crossing; and • New England Highway – Singleton Railway Underpass (Gowrie Gates). 	Planned rail and road improvement programs provide for improved efficiencies for the Port and for future growth and development.
Hunter Regional Action Plan 2012	2012 - 2027	Recognises that the region’s existing infrastructure including the port, airport, and road and rail transport networks will be strengthened through investment in critical infrastructure and integrated transport over the next 10 – 15 years.	<ul style="list-style-type: none"> • Northern Sydney Freight Corridor; • New England Highway upgrades through Maitland; • Upgrade of Tourle Street and Cormorant Road; • Newcastle Inner City Bypass (Rankin Park to Jesmond); and • Future consideration of traffic management on the road network around Adamstown railway level crossing. 	Rail and road corridor improvements will facilitate more efficient freight movements and reduce congestion, and provide capacity in the rail and road network for future growth and expansion of the Port.
Hunter Strategic Infrastructure Plan 2013	2013 - 2033	Identifies the key issues, pinch points and opportunities for improvement in infrastructure in the Hunter. It is aimed at prioritising Government spend on infrastructure that will support private investment and does not limit potential development of land or prescribe objectives that must be met by future developments.	<ul style="list-style-type: none"> • Duplication of Tourle Street Bridge and approaches; • Pacific Motorway (M1, previously F3)/Weakleys Drive Intersection (Planning Phase); • Pacific Motorway (M1) extension to Raymond Terrace (Planning Phase); • Newcastle Inner City Bypass – Rankin Park Link (Planning Phase); • Regional transport enhancements – connections to port, airport, strategic employment lands and major centres; • Adamstown Rail Level Crossing (Planning Phase); and • Lower Hunter Freight Corridor (Planning Phase). 	Improved traffic flows and reduction in delays, resulting in improved productivity for freight travelling to and from the Port. Increased capacity would benefit Australia’s economic activity in relation to freight and the operation of the Port.
Hunter Regional Transport Plan 2014	2014 - 2032	Supports the NSW Long Term Master Plan, identifying specific local transport needs and priorities. The Plan recognises that the region is home to the world’s largest coal export port in Newcastle. The Plan builds on the expected growth of freight and exports in the region.	<ul style="list-style-type: none"> • Wyong to Newcastle Coal Rail Enhancement Program – passing loops at Awaba; • Planning for the Adamstown level crossing; • Northern Sydney Freight Corridor including the Lower Hunter Freight Corridor; and • Corridor identification and protection for the Lower Hunter Freight Corridor. 	Rail corridor improvements facilitate greater efficiencies in freight movements and provide for future growth and expansion.
Lower Hunter Regional Strategy	2006 - 2031	Plans for the provision of sufficient new urban and employment lands to meet expected strong demands for growth, and refocuses development in the Lower Hunter.	The strategy does not incorporate key actions. Rather, it establishes a hierarchy and network of urban centres for the Lower Hunter to aid in land use planning.	<p>The Strategy identifies the Port of Newcastle as a specialised centre of regional significance to economic activity and employment.</p> <p>Managing the interface between the City of Newcastle and the Port is of key importance to the economic and social strength of the city as both the nature of the Port and the city continue to evolve.</p>

DEVELOPMENT CONTEXT



4. DEVELOPMENT CONTEXT



4.1 Planning Requirements

Any future development of the Port will be undertaken in the context of the planning and environment regulatory framework set by the State and Federal Governments. Key requirements are assessment of the environmental, economic and social impact of developments as well as ongoing management of environmental and community impacts during operations.

In terms of development, the key planning instrument is the NSW Government's *State Environmental Planning Policy (Three Ports) 2013* (the 'Ports SEPP') which is developed and enforced under the *Environment Planning and Assessment Act 1979*. The Ports SEPP provides a rigorous and robust planning system for development at the three major ports in New South Wales (Port Botany, Port Kembla and the Port of Newcastle) while streamlining processes for commonplace Port infrastructure projects and developments.

All land within the Ports SEPP Area is zoned SP1 -Special Activities, with the following main objectives:

- to maximise the use of waterfront areas to accommodate Port facilities and industrial, maritime industry, freight and bulk storage premises that benefit from being located close to Port facilities; and
- 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.

The Ports SEPP Area includes the Channel, portside land and key local transport corridors essential to the operation of the Port, as illustrated in Figure 1.

The Ports SEPP also identifies the approval pathway and the consent authority that will review any development application and determine whether the development may proceed. PON has no powers under the NSW legislative framework to determine any developments by Port Tenants or other parties. All development by Port Tenants will also require the consent of the land owner, being the NSW Government, in order to lodge a development application.

Differing levels of environmental investigation and assessment are required by the Ports SEPP depending on the nature and scale of the proposed development. Larger projects will be publicly exhibited and will be subject to a full merit-based assessment by the NSW Department of Planning & Environment. These projects are generally considered to have the largest potential environmental impacts and therefore require the highest level of scrutiny and community consultation.

4.2 Port Lease Requirements

One of PON's key obligations under the Lease is to maintain the use of the Port for import and export activities. The Lease requires the majority of the Port Lease Area to be used for Core Port Infrastructure or Port Services, defined as:

- Core Port Infrastructure: facilities used or intended for use in connection with the operation of the Port by PON, including berths & berth boxes, bulk loading and unloading facilities, conveyors & pipelines, fuel storage, coal storage and handling, hardstand, marine structures and wharfs; and
- Port Services: services connected with the operation of the Port such as dredging, security, safety, preservation of the environment, administration and processing purposes.

Land formally allocated to the uses above is illustrated in Figure 1 as "Core Port Land".

Non-Core Port Land may be used for other activities provided that these do not interfere with the objectives for the Port. The following activities are identified in the Lease as being inconsistent with Port use and are therefore not permitted: hotels; hospitals; sport or recreation facilities (excluding bicycle or walking tracks); residential development; retail shopping facilities, or a wind turbine generator or wind farm.

4.3 Operational Requirements

PON holds numerous approvals, permits and licences for existing activities across the Port, and is responsible for compliance with obligations relating to these activities.

All other operators across the Port, including tenants, are responsible for compliance with their own development approvals, permits and licences. PON has no regulatory powers under the NSW legislative framework and is not an enforcement agency for Port Tenants or other companies. Regulatory enforcement will continue to be undertaken by authorities such as the EPA, which has responsibility for monitoring compliance with legislation covering air emissions, noise, waste, water quality, contaminated sites, hazardous materials and pesticides.



ECONOMIC CONTEXT

5. ECONOMIC CONTEXT



5.1 Overview

Economic activity in a port's catchment determines port development needs, as trade activity drives the cargo that will be moved through a port. Economic activity also influences the types of tenants that will occupy land at a port.

An analysis of future trade trends provides an important input to decision making regarding the future development of the Port. The anticipated key drivers of trade growth in the Port over the next 5 years are described below, together with forecasts of trade volumes for key traded commodities.

5.2 Economic and Social Trends

Broader economic, social and environmental trends, at the global, regional and local levels provide the context for shorter term trade forecasts. Key trends observed by PON are growth in Asia, strength in the local economy and the continued increasing interest in environmental protection.

The global economy continues to see rapid growth in emerging Asian economies. This is likely to continue to contribute significantly to Australia's strong economic growth as compared to other major developed economies. This is largely as a result of the Port's proximity to these markets and ability to respond to increased demand for food and resources.

At the state and regional levels, NSW has shown consistent growth over a long period. Growth in the NSW economy is anticipated to continue and will be supported by investments in new major road and rail infrastructure projects and the significant contribution of the Hunter Valley mining industry.

The Port services a large geographic area of northern NSW, stretching through the Central Coast, Lower Hunter, Upper Hunter, Mid North Coast and New England regions. Significant population growth is planned to occur in the Lower Hunter and the Central Coast regions in the coming years, which will influence demand for goods and services.

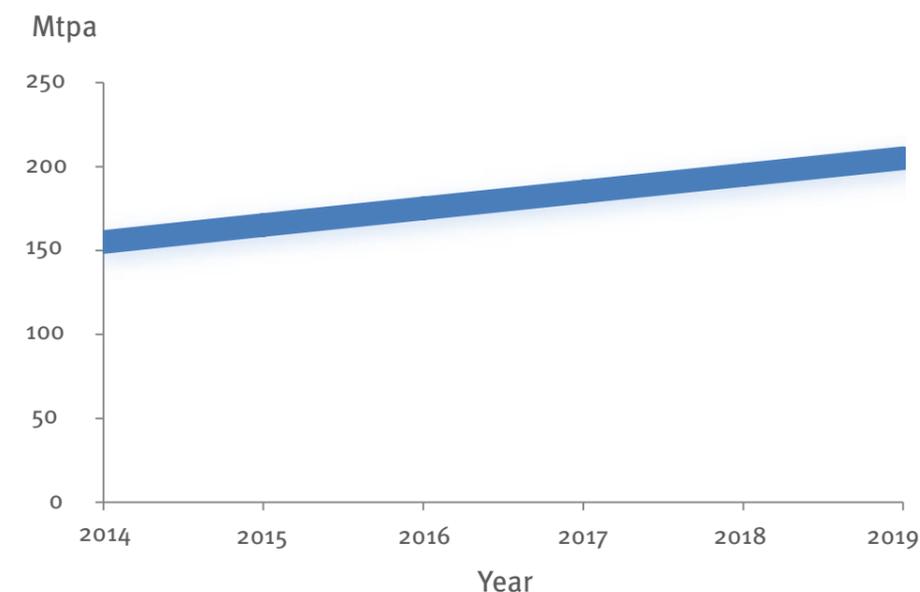
5.3 Trade Forecasts

5.3.1 Coal

Coal is the dominant trade at the Port, and is sourced from mines in the Hunter Valley and Ulan regions, and the Gunnedah and Gloucester Basins. Coal comprises approximately 96% of trade volume throughput, and is predominantly high energy bituminous coal with strong demand from established markets in Japan, China, South Korea and Taiwan. Exports to China have increased in recent years and are expected to continue to grow due to the high quality of the coal, growing energy demand and the relative high cost of domestic production in China.

As illustrated below, coal trade is anticipated to continue to grow over the next 5 years.

FORECAST COAL TRADE



The current approved total coal terminal capacity at the Port is 211 Mtpa; consisting of 145 Mtpa across the two PWCS terminals at Kooragang and Carrington; and 66 Mtpa at the NCIG terminal.

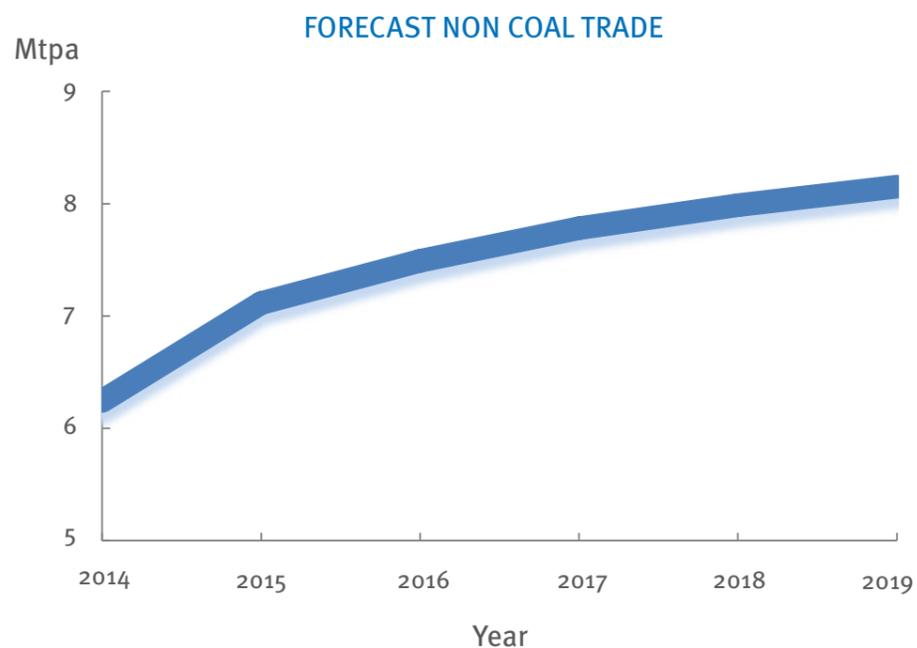
Forecast increases in coal trade volumes at the Port during the period to 2019 are supported by existing contracts between coal producers and terminal, track and train service providers. Subject to obtaining planning approval, further contractual commitments by coal producers are expected to underwrite the construction of the first stage of the new coal Terminal 4 ("T4") on Kooragang Island by PWCS. If all stages of T4 were approved and developed, it would increase total coal terminal capacity for the Port to approximately 280 Mtpa.

5.3.2 Non-Coal Cargoes

Current non-coal trade incorporates more than 25 different cargoes including fuels; alumina; wheat, meals and grains; mineral concentrates; fertiliser; steel; pitch and tar products; petroleum coke; and cement. It also incorporates numerous ‘other non-coal trades’ including machinery and project cargo, which in combination contribute a larger volume in total throughput than fuels.

As illustrated below, non-coal trade is expected to increase steadily over the next 5 years. This growth will be achieved predominantly through strong growth in a small number of key trades such as fuel and wheat, with modest growth or stable volumes in most other commodities.

The key driver of growth is expected to be demand for import cargoes that service the expanding population of the region, including fuels, cement and steel. Increases in the import of other imported commodities that are linked to growth and demand from the mining sector, such as machinery and project cargo, fuels and ammonium nitrate will also be a significant contributor. Demand for export cargoes is also forecast to grow, including cargoes such as wheat, grains and mineral concentrates.



5.3.3 Fuel

Fuel imports through the Port comprise both petrol and diesel, and increases in throughput will be driven by ongoing growth of the region’s coal industry and planned population growth. The coal industry is one of the largest consumers of fuel in the region, and therefore forecast expansion of this industry over the coming 5 years will create significant increases in demand for fuel.

Fuels are currently imported through facilities at Carrington and Mayfield and are then transported by truck to service stations, mining operations and rail refuelling facilities at Greta and Hexham. Competition for fuel imports through the Port into the Hunter Region is principally from the fuel pipeline linking Sydney and Newcastle. The recent closure of a number of refineries within Australia means there are also opportunities within the global supply chain for growth in the import of refined fuel products.

Strong growth in fuel trade between 2015 and 2019 is forecast at 30% to 50% based on 2014 levels. New import, storage and distribution facilities are currently being developed in response to this forecast growth. Stolthaven is currently developing and operating a bulk fuel storage and distribution facility within the Mayfield Development Site. The construction of a dedicated bulk liquids berth at Mayfield Berth 7 will increase operational efficiency and provide opportunities for further expansion in fuel trade in the future. Park Fuels is also developing an import, storage and distribution facility for fuel on Walsh Point with unloading taking place at K2.5 and K3 Berths.



5.3.4 Wheat And Other Agricultural Products

Agricultural products exported through the Port include wheat, meals and grains. Export trade drivers are global demand and the supply capacity within the northern region of NSW, from which these products are sourced.

Continuing strong demand for agricultural products is forecast as a result of rapid population growth in countries across Asia. The Port is well positioned to capitalise on this increasing demand, however the key determinants in growth of agricultural exports will be the ability of the producing catchment to supply the products, which are principally influenced by weather conditions, and the capacity of the supply chain to deliver it to the Port.

Generally, agricultural produce is used to supply the domestic market before exports and the domestic market will grow as the population grows. Therefore, in order to maintain and grow export volumes, the overall yield must grow to meet the growing domestic consumption first, and then the increasing export demand.

Agricultural products are transported to the Port by both rail and road. There are opportunities to expand rail haulage of products to the Port. This will require investment in various rail infrastructure and rolling stock, expansion of regional intermodal facilities and track enhancement.

5.3.5 Container Trade

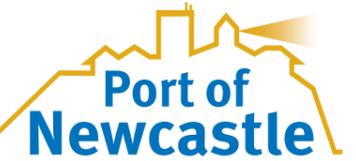
The Port of Newcastle handles container trade from geared vessels at East Basin 1 and 2 Berths in Carrington and Mayfield 4 Berth. This is anticipated to continue during 2015 - 2020 in its current form, with potential for some gradual organic growth and fluctuation in trade associated with regional demand. There are no plans for the development of a major dedicated container terminal within the timeframe of this Port Development Plan.



PORT DEVELOPMENT 2015 - 2020



6. PORT DEVELOPMENT 2015 - 2020



6.1 Development Objectives

PON is committed to maintaining Newcastle's position as one of the leading and most efficient global-scale coal export ports and to facilitating continued growth and development of existing and new trades in a sustainable manner.

Throughout the term of the Lease, the Port will be a major seaborne trade gateway for New South Wales. To this end, PON will continue to work with existing tenants and stakeholders as part of ongoing management of operations of the Port.

Based on economic forecasts and information gained through stakeholder interactions, PON and Port Tenants will undertake a range of development projects within the Port over the next five years.

Where opportunities arise to facilitate organic trade growth and investment in Port infrastructure, PON will promote and support such growth consistent with this PDP, relevant government policies and the statutory approval processes.

Within the timeframe of this PDP, PON is not planning any port infrastructure projects (as defined in Ports and Maritime Administration Act 1995 Part 5, Division 6A) for which PON may impose an infrastructure charge.

6.2 Developments by Tenants and Others

Much of the development at the Port is undertaken by independent companies who are long-term tenants on land within the Port Lease Area. The proponents of these developments are responsible for the design, approval, construction and operations of the developments, rather than PON. PON's role is to coordinate, under the terms of the Lease, landowner's consent for such development. This PDP describes development by PON rather than other companies who may tenant or use land at the Port, although major tenants proposals are described for context where these are already in progress.

6.3 Development of the Channel and Berths

PON is facilitating the Capital Strategic Dredging Project which involves the development of 12 additional berths within the Port alongside the existing shipping Channel on the Hunter River South Arm, including:

- seven berths proposed in Mayfield, on the riverfront adjoining the Mayfield Precinct (Mayfield Berths 1 to 7);
- four berths proposed at Walsh Point (Kooragang Berth 1, Walsh Point Berths 1, 2 and 3); and
- one berth proposed at Carrington (Dyke Berth 3).

The project has been part of the Port's master planning for some years, and is a long-term project that will be developed in stages. Individual berths will be constructed over time in response to the commercial and shipping needs of Port users.

A coordinated approach to port development has been established through the preparation an overall master plan for the location and development of all 12 berths. Planning approval for the overall project was granted by the NSW Department of Planning and Environment in 2013.

Individual berths will be constructed either by PON or Port Tenants as the economic need arises. Once berth(s) are required, further detailed environmental assessments will be undertaken prior to development. This will include the detailed design and approvals for construction and operation of wharves and berthing infrastructure, the design and assessment of the land-side structures and applications for approvals to dispose or reuse dredge spoil.

Based on current trade forecasts, many of the berths covered by the Capital Strategic Dredging Approval will not be constructed in the 2015-2020 timeframe of this PDP. However development of Mayfield Berth 7 will occur over the 2015-2020 timeframe and will be undertaken by Stolthaven, an existing Port Tenant, to provide better efficiency for its operations.

Developments anticipated by PON over 2015-2020

Preparation of the recently vacated former Forgacs Site at Carrington for future development opportunities.

Upgrades to existing berth infrastructure on the western side of Walsh Point to enhance operational, safety and environmental performance.

Facilitation of berth development by tenants through the Capital Strategic Dredging Project.



6.4 Development in Carrington Precinct

6.4.1 Overview

The Carrington Precinct is occupied by the PWCS Carrington Coal Terminal to the north, and a range of other port facilities to the south.

Port operations are in close proximity to the residential areas of Carrington and Honeysuckle.

Carrington is a well-established community that has lived and worked alongside the Port for many decades. Honeysuckle is a new waterfront commercial, restaurant, and residential area that has been developed on former Port wharves opposite the Carrington Precinct.

The Ports SEPP identifies and zones land specifically allocated for port facilities and provides certainty in relation to this land use. It is also important that land zoning and development on adjacent land consider the proximity of the Port. The development of residential areas and other sensitive uses require careful consideration of the potential for land use conflicts and should incorporate suitable mitigation or amelioration measures where appropriate.



6.4.2 Existing Capacity

With regard to existing development, the footprint of the Carrington Coal Terminal is constrained by surrounding land uses and is not expected to change over the life of this PDP.

There are a number of trade opportunities within Carrington that already exist within the confines of current infrastructure. A number of the berths have capacity for increased throughput without the need for any additional infrastructure development. PON expects to use the spare capacity as determined by the commercial needs of PON and Port users.

6.4.3 Former Forgacs Site

Ship building and maintenance activities have operated on the western side of Carrington for many years. The most recent tenant, Forgacs, operates on land at Fitzroy Street, but vacated the Denison Street facility in April 2014. PON is now in the process of preparing the land for future development. Future redevelopment opportunities will be consistent with Port operations and will comply with the requirements set by the Lease and Ports SEPP. Any development will need to assess and manage the potential for impacts on the nearby marina and residential areas.

6.4.4 Channel Berth

Cruise ships have been bringing additional tourism opportunities to Newcastle since 2000. In 2010 major refurbishments of the Channel Berth in Carrington were undertaken to support the growing cruise business in the Port. Well established practices are in place enabling passengers to disembark at the Channel Berth and be transported to various local and regional destinations.

Cruise ships are an important source of additional tourism in the area, and PON welcomes the NSW Government's announcement that a 10-year Cruise Development Plan is underway to ensure that NSW captures a larger share of the economic benefits from the growth in the cruise market.

The existing Channel Berth and landside facilities are considered capable of meeting foreseeable infrastructure needs over 2015-2020. Over the longer term, PON is committed to working with major stakeholders in developing a concept for a permanent cruise terminal at the Channel Berth.

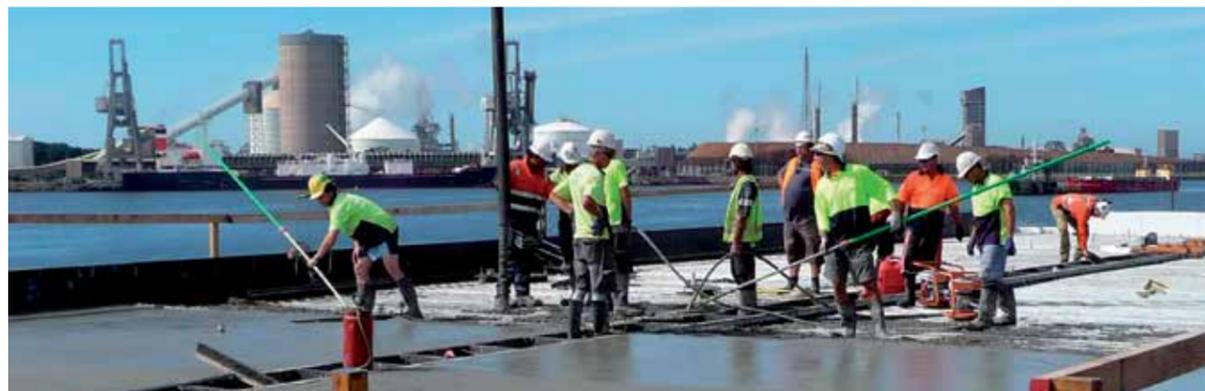
6.5 Development in Mayfield Precinct

The Mayfield Development Site located on former BHP Steelworks land has been remediated in accordance with a voluntary remediation agreement between the EPA and the State Government, with the exception of a 10 ha area in the south-west known as the Intermodal Site. HDC is managing the remediation of this area on behalf of the State Government. These lands offer opportunities for port development, and timely completion of remediation works is important to facilitate future development in this area.

The Mayfield Development Site currently contains two shipping berths and the Stolthaven Fuel Terminal facility (which has recently been constructed). The Mayfield Development Site offers significant potential for future development, and the Port has developed a Concept Plan that seeks to balance the development of port facilities with the amenity of neighbouring residential areas. The Mayfield Concept Plan has been approved by the NSW Department of Planning and Environment under the *Environmental Planning and Assessment Act 1979*.

The Concept Plan Approval establishes the broad parameters and environmental performance criteria to assess and develop future projects. It also provides a level of certainty for regulators and the local community that the site will be developed in a consistent and environmentally responsible manner. The Concept Plan Approval does not permit the construction or operation of any individual project. New developments will be subject to separate approval(s) under the *Environmental Planning and Assessment Act* and must be consistent with the Mayfield Concept Plan.

The timing of individual developments in the Mayfield Development Site will depend on the commercial needs of port users. Development planned for 2015-2020 is the construction of the Mayfield Berth 7 by Stolthaven. Development of this berth will include dredging to create the berth pocket, construction of the wharf structure and access road, and the installation of loading and unloading facilities such as pipe manifolds or marine loading arms. The existing pipelines and associated infrastructure that currently carry product from Mayfield Berth 4 will be relocated to Mayfield Berth 7. Koppers will also relocate its pipeline from BHP Berth 6 to Mayfield Berth 7.



6.6 Development in Kooragang Precinct

The Port's Kooragang Precinct will remain primarily dedicated to coal exports over both the 2015-2020 period and the longer term due to the substantial existing coal export infrastructure in the precinct.

Both PWCS and NCIG have existing proposals to expand development within the Port Lease Area. PWCS has proposed a fourth coal terminal known as Terminal 4 (T4), which is currently undergoing assessment by the State and Federal Governments. It will be developed by PWCS subject to approvals and market conditions for coal. The T4 development would involve creation of another rail line, a coal stockyard area, service and maintenance areas, export berths on the Hunter River South Arm and conveyors between the stockyard and berths. In order to provide a turning circle for shipping, a second Swing Basin on the South Arm of the Hunter River would be required and has received planning approval under both State and Commonwealth legislation following a detailed Environmental Assessment. The Swing Basin would be constructed by PWCS, or other future proponents who may need a suitable turning circle. Approval of T4 is critical for the long-term growth of the coal trade; without the approval and development of T4 the coal export capacity will be capped at the existing 211 Mtpa. Major projects such as T4 have a long lead time from inception through design, approvals and construction to operation. Timely provision of coal capacity will be important to the Port.



The NCIG rail flyover project adds to the existing rail loop servicing the NCIG Coal Terminal by constructing an additional high capacity spur line and associated flyover that crosses over the Kooragang outbound rail line, servicing PWCS Kooragang Coal Terminal. The spur line and flyover are under construction to facilitate operations at the NCIG terminal. NCIG designed and commenced construction after receiving planning approval following a detailed Environmental Assessment.

PON is supportive of the growth and development of the Hunter Valley coal industry and will seek to work with the industry to ensure that the Port can cater for projected coal volumes. Other than the land for the existing coal terminals and the land allocated for the proposed T₄, there is no need to allocate further land for coal use in the next five years.

The western half of the Kooragang Precinct was formerly used by heavy industry as a waste disposal area known as the Kooragang Island Waste Emplacement Facility (KIWEF). KIWEF is in the process of being closed by Hunter Development Corporation (HDC) under an environmental notice issued by the NSW EPA. This land cannot be developed until appropriate environmental closure is complete. It is therefore important that timetables for closure are maintained by the State Government’s agencies. Closure is due within the 2015-2020 PDP timeframe. Part of the PWCS T₄ coal terminal is proposed to be developed over this area of land, and if T₄ proceeds, PWCS will undertake some of the closure requirements (as well as additional environmental works associated with the coal terminal).

An area of land bounded by the existing NCIG Rail Loop may be developed by PON or Port Tenants over 2015-2020. PON is currently investigating suitable land uses for the area; that is, land uses that are unaffected by the surrounding rail, can use a relatively large area, and would value separation from residential areas. Any development in this area would also need to consider the nearby Hunter Wetlands.

6.7 Development in Walsh Point Precinct

PON directly manages the Kooragang Berths K₂ and K₃ on the north-west side of Walsh Point and some upgrades to these facilities are proposed in 2015 - 2020 as follows:

- demolition of the ageing ship unloading equipment at the Kooragang 2 berth, as this equipment is reaching the end of its working life;
- upgrade of environmental stormwater controls at K₂/K₃ (already commenced); and
- upgrade of environmental dust controls at K₂/K₃ (now complete).

There are no major berths located on the eastern side of Walsh Point due to the shallow depth of the North Arm of the Hunter River. Barges with shallow drafts currently transport materials from the tenant facilities on the eastern side and this is anticipated to continue. While PON recognises the long term future potential of dredging the North Arm to facilitate further development, this is not anticipated to occur in the life of this PDP.

Activities on the eastern side of Walsh Point are in proximity to the residential area of Stockton. This requires management of environmental issues such as noise, traffic, dust and odour by both PON and Port Tenants. Any expansion and development of facilities by PON or Port Tenants is subject to the planning approval process outlined in the Port SEPP. In addition, PON and Port Tenants are subject to extensive environmental regulation that sets requirements relating to development and operation and specific EPL limits on emissions. Current developments by Port Tenants in Walsh Point include refurbishment of the existing tanks and installation of new bulk tanks by Park Fuels.

PON has developed and is implementing a Landscape Plan along the eastern boundary of Walsh Point. At present there is limited visual screening from the Stockton peninsula, and the Landscape Plan identifies a range of native trees and shrubs that will provide a visual screen as they are established over time.

Upgrade of stormwater and dust controls at K₂ and K₃

PON is upgrading stormwater controls at the K₂ and K₃ berths so that rainwater is filtered and cleaned before it reaches the harbour. This involves installation of pipework and stormwater controls designed to suit each area of the berths.

PON is also reducing the amount of dust created when bulk materials are loaded onto ships. This includes working with stevedores to change loading practices, placing dust controls on loading equipment and installing truck wheel washing to reduce the spread of dust on Port roads.

6.8 Future Transport Infrastructure and Logistics

The logistics network around the Port, including road and rail, is essential to its ongoing operation and the ability to respond to increased demand as the population grows. The National Ports Strategy emphasises the need for the development of efficient, sustainable ports and related freight logistics that together support the needs of a growing Australian community and economy.

A port cannot operate without an efficient transport network that enables goods and materials to reach and leave the wharves quickly and efficiently. As the population increases, transport networks come under increasing pressure, and must be developed to respond to complex demands from both commuters and freight. Clear plans for future transport infrastructure are essential to enable businesses and transporters to plan their own future developments. In particular, future transport corridors, and land for logistics facilities, need to be protected.

PON is supportive of broader State infrastructure programmes, as identified in the key freight and transport infrastructure strategies discussed in Chapter 3. Efficient, timely and coordinated transport infrastructure external to the Port is essential to its operation and growth. PON supports the key rail and road infrastructure projects identified in these strategies, including those which have been funded in the 2013/2014 NSW Budget, as identified below. These projects, together with future infrastructure projects in strategic plans, will provide for greater efficiencies in the movement of freight to and from the Port, as well as providing capacity for future growth and development.

PON will continue to support and advocate for external rail and road infrastructure projects that will promote the efficient movement of freight throughout the Port and NSW and protect transport corridors from redevelopment and urban encroachment. PON will work with national and NSW government agencies and stakeholders to identify impacts of rail and road activity at the Port and will develop strategies to address any adverse impacts, ensuring that the needs of the Port are met.

Key rail and road infrastructure projects funded in the 2013/2014 NSW Budget

- Sydney – Newcastle rail freight: NSW budget has set aside funds to commence improving capacity and reliability of freight trains between North Strathfield and Broadmeadow;
- Newcastle – Brisbane road freight: continuation of the upgrade to the Pacific Highway between Hexham and the Queensland border;
- Newcastle – Sydney road freight: NorthConnex linking the M1 at Wahroonga and M2 at West Pennant Hills;
- Newcastle road freight: construction of the Newcastle Inner City Bypass missing link from Rankin Park to Jesmond; and
- Duplication of Tourle Street and Cormorant Road.

6.9 Future Planning for Environment and Community

PON is committed to future planning for, and management of, potential interactions with the surrounding environment and community that the Port's unique setting requires.

Managing the interface between the city and Port will continue to be important as the Port and city continue to grow. It is critical that broader land use planning recognise the proximity of the Port and the transport corridors that service it.

Within the timeframe of this PDP (2015– 2020), PON is not planning any major port infrastructure projects, therefore it is not expected that any significant environmental issues, beyond those already assessed and addressed through the planning approvals process, will arise through implementation of this PDP.

In all Port activities, PON will consider interactions with the environment and community, and develop frameworks to identify, ameliorate and manage potential impacts on the Port or surrounding environment. PON will maintain consultation with the community through consultative forums such as the Community Liaison Group, and will also maintain ongoing dialogue with the NSW State Government.

The Port will continue to be a vital economic asset for Newcastle and Australia over 2015-2020 and beyond, and PON is proud to be the custodian of the Port for the Government and the people of NSW.



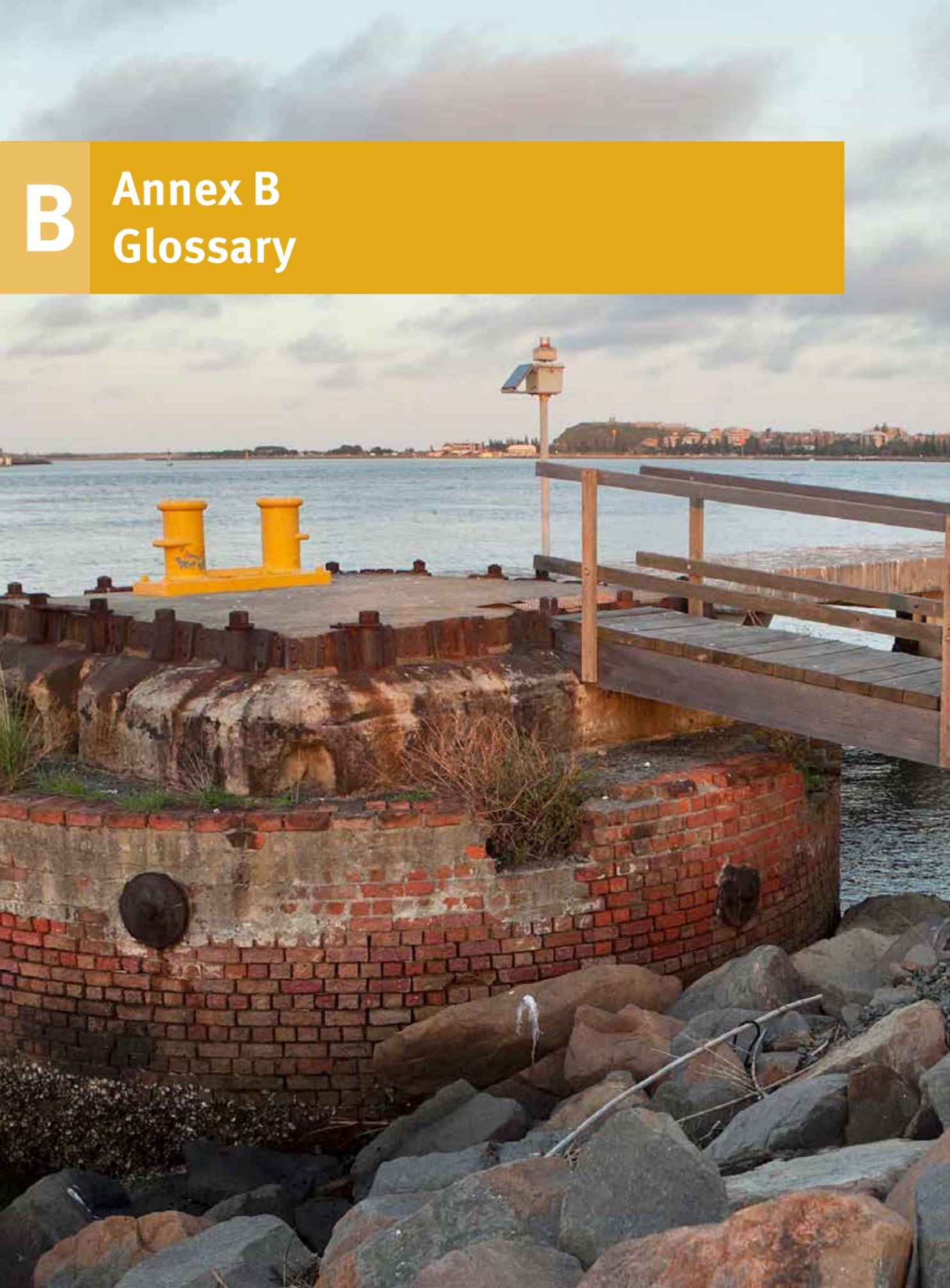


A Annex A Port lease cross-reference

CROSS REFERENCE TO PDP REQUIREMENTS IN PORT LEASE

Lease Requirement	Section of PDP
(a) Port Lessee's development objectives and proposals for the Port and the Port Area	Section 1.2 Port of Newcastle Vision and Mission Section 6.1 Development Objectives Section 6 Port Development 2015 - 2020
(b) Port Lessee's assessment of the future needs of users of the Port for Port Services and Core Port Infrastructure;	Section 6 Port Development 2015 - 2020 Over 2015-2020, future needs of users of the Port for Port Services and Core Port Infrastructure are not expected to change significantly.
(c) Port Lessee's proposals for land reclamation and related development of the Port, Port Area and Core Port Infrastructure;	Section 6 Port Development 2015 - 2020 Over 2015-2020, PON is not planning any significant land reclamation activity as discussed in the PDP.
(d) Port Lessee's assessment of the future use of the Port Area including general amenity impacts of planned Port operations on the areas surrounding the Port;	Section 6 Port Development 2015 - 2020
(e) Port Lessee's assessment of dependency of Port operations and development on the development or improvements of logistics chains and transport infrastructure servicing the Port;	Section 2.6 Transport Networks Section 6.8 Future Transport Infrastructure and Logistics
(f) Port Lessee's assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan, and plans for dealing with, ameliorating or preventing impacts of development of the Port or Port Area on the environment;	Section 4 Regulatory Context for Port Development Section 6 Port Development 2015 - 2020
(g) the constraints on Port and Port Area development including planning and development approvals required, and conditions of approvals;	Section 4 Regulatory Context for Port Development Section 6 Port Development 2015 - 2020
(h) any port infrastructure projects as defined in Part 5, Division 6A of PAMA in respect of which Port Lessor or Port Manager proposes to impose an infrastructure charge under Part 5, Division 6A of PAMA;	Section 6 Port Development 2015 - 2020 Over 2015-2020, there are no planned port infrastructure projects as defined in Part 5, Division 6A of PAMA in respect of which Port Lessor or Port Manager proposes to impose an infrastructure charge under Part 5, Division 6A of PAMA.
(i) any proposal to develop or expand any facilities for the storage or handling of containers; and	Section 5.3.5 Container Trade Over 2015-2020, no significant expansion of containers facilities is anticipated.
(j) clearly identifies any land that is used, or proposed to be used or is allocated for a Coal Use.	Section 2 Operations at the Port (2.5.1 and 2.5.3) Section 6 Port Development 2015 - 2020

B Annex B Glossary



GLOSSARY	
AS /NZS ISO 14001: 2004	Australian Standard / New Zealand Standard International Standards Organisation Standard Number 14001:2004 “Environmental Management Systems – Requirements with guidance for use”
CBD	Central Business District
CCT	Carrington Coal Terminal, owned by PWCS at Carrington
Common User Berth	Berths owned and managed by PON, with stevedores and terminals allowed access on a common user basis
Concept Approval / Concept Plan Approval	An approval granted for a concept plan for a project under the now repealed Division 3 of Part 3A of the Environmental Planning and Assessment Act 1979, which is continued in respect of various Concept Approvals by way of operation of the transitional provisions in Schedule 6A of the Environmental Planning and Assessment Act 1979. In legal terms referred to as Development Consent.
Development Approval	Consent to a development application under Part 4 of the Environmental Planning and Assessment Act 1979.
EA	Environmental Assessment (usually for the purpose of planning approvals)
EIS	Environmental Impact Statement (usually for the purpose of planning approvals)
EMP	Environmental Management Plan
EMS	Environmental Management System
EP&A Act	NSW Environmental Planning & Assessment Act 1979
EPA	NSW Environment Protection Authority
EPL	Environmental Protection Licence
Federal Government	Federal Government of Australia
Government	The Government of the State of NSW
Ha	Hectare
HDC	Hunter Development Corporation; Development corporation under the NSW Growth Centres (Development Corporations) Act 1974 reporting to the Minister for Planning and Infrastructure and the agency charged with remediation of former BHP activities on Mayfield and Kooragang Island
HVCCC	Hunter Valley Coal Chain Coordinator
Intermodal Site	Approximately 10ha within the Mayfield Development Site bound by the Port Lands to the north, northeast, east, and south.
KIWEF	Kooragang Island Waste Emplacement Facility
m	Metres
ML	Megalitre
Mt	Million tonnes
Mtpa	Million tonnes per annum
NAT	Newcastle Agri Terminal
NCIG	Newcastle Coal Infrastructure Group
NSW	New South Wales

p.a.	Per annum
PANSW	Port Authority of New South Wales
Patrick	Patrick Ports Pty Limited or any other subsidiary of Asciano Limited operating under the trading name "Patrick"
PDP	Port Development Plan
PON	Port of Newcastle, the private sector operator of the Port
Port	The Port of Newcastle, that is, the land, waterways and Channel
Port Lease Area	The land leased from the NSW Government by Port of Newcastle, identified in Figure 1 of this PDP.
Port Precincts	The precincts of Carrington, Mayfield, Kooragang and Walsh Point.
Ports SEPP	The NSW Government's State Environmental Planning Policy (three Ports) 2014, enforced under the EP&A Act. Sets development requirements in the Port Lease Area and surrounds.
Ports SEPP Area	The land subject to the Ports SEPP, identified in Figure 1 of this PDP. Includes the Port Lease Area as well as other land.
PSOL	Port Safety Operating Licence issued by the Minister under Division 3 of Part 2 of Ports and Maritime Administration Act 1995
PWCS	Port Waratah Coal Services
Ramsar	International Convention on Wetlands of International Importance 1971 (the 'Ramsar Convention')
RMS	Roads and Maritime Services, NSW State Government agency, under Transport for NSW, which is the amalgamation of the Roads and Traffic Authority and NSW Maritime
SEPP	State Environmental Planning Policy (see Ports SEPP)
State	The State of New South Wales
t	Tonne
T4	Terminal 4, the proposed new coal terminal at the Port to be constructed and operated by PWCS
TEU	Twenty-foot Equivalent Unit ("TEU") is standard measure of volume of shipping containers. The standardisation allows for comparison of different sized containers, the typical being 20 feet (6.1 metres) or 40 feet (12.2 metres) long by 8 feet (2.44 metres) wide
TfNSW	Transport for NSW, the statutory authority of the NSW Government created to manage transport services in the State. TfNSW plans and coordinates the functions of RailCorp, the State Transit Authority and Roads and Maritime Services
VTIC	Vessel Traffic Information Centre

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Notes

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