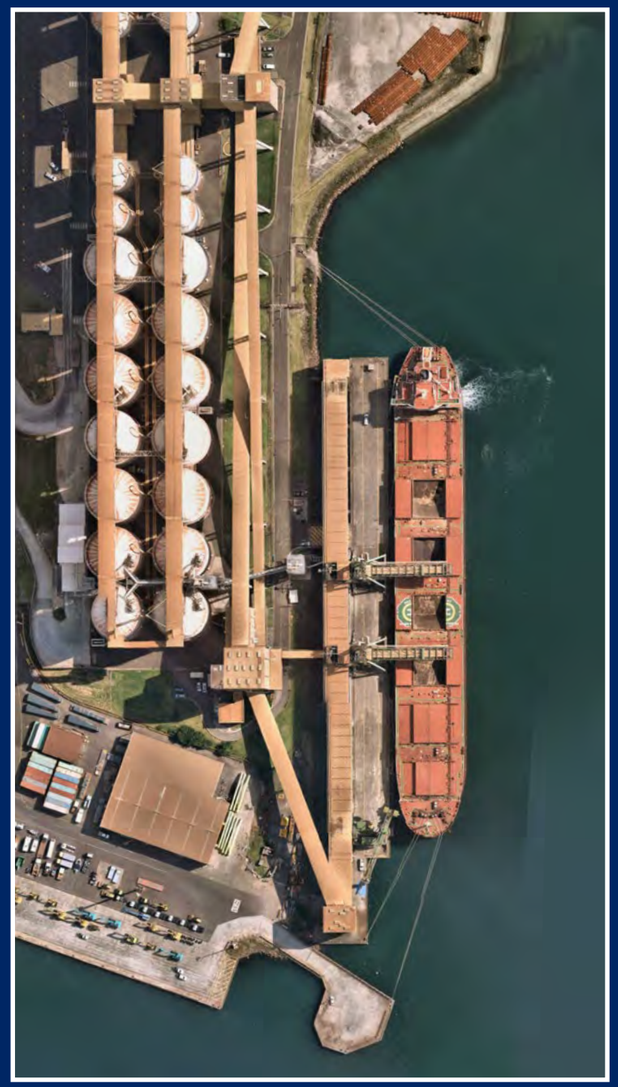
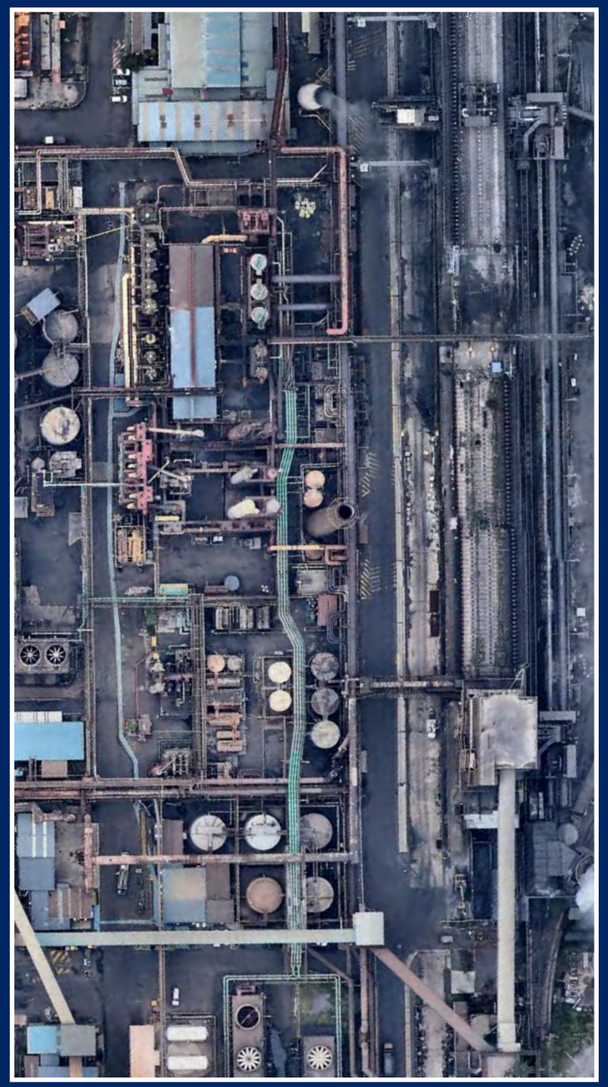
NSW GOVERNMENT

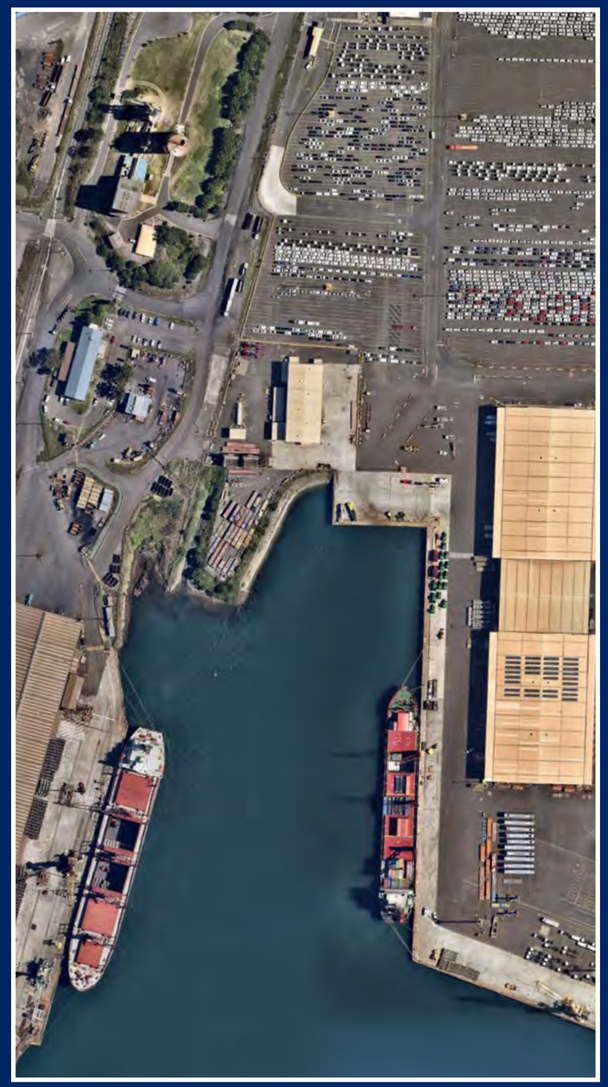
Port Kembla

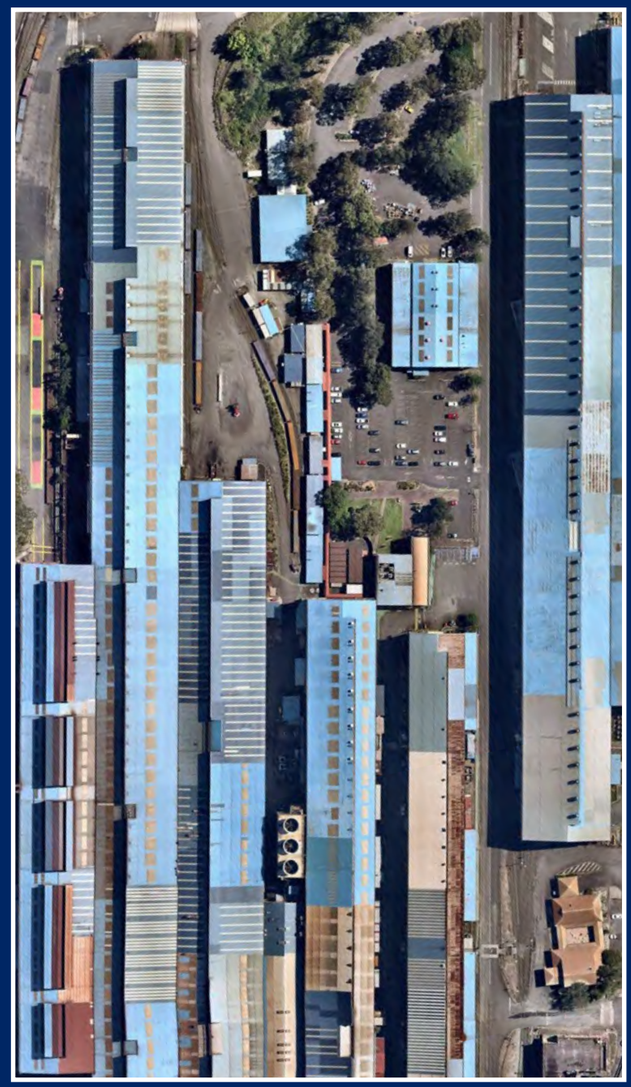
Structure Plan

July 2023









Acknowledgment

We acknowledge and pay our respects to the Traditional Custodians of Country within the area of Port Kembla, the Wodi Wodi and Dharawal peoples of the Yuin Nation. We extend respect to their ancestors and elders past, present and emerging.

Document Information

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What is a 'Structure Plan'?

A structure plan is a high-level document which informs the development or redevelopment of large areas where there are multiple land owners. It does not provide fine grain detail about individual sites, but provides an overarching vision, principles and spatial framework/ skeleton to guide how an area should grow and change over time.

Executive Summary

Chapter 1 - Introduction

Chapter 2 - Understanding the Precinct

Chapter 3 - Structure Plan

Executive Summary

Vision

"Port Kembla is the key port of growth for the State, delivering significant economic and social benefits for the Illawarra and NSW.

The Precinct collaboratively aligns the interests of diverse stakeholders to effectively build capacity and capability to strengthen core industrial uses, maximise an international trade gateway, embrace a renewable energy future, support emerging manufacturing and innovative industries, and other compatible employment generating uses.

It safeguards opportunities for the future of the Port and the Precinct by providing efficient infrastructure and networks, and managing land-use, environmental and industry conflicts."

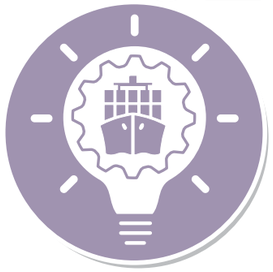
Principles

Five design and planning principles have been developed to inform and guide future planning for the Precinct and to achieve the desired Vision. These are listed below and described in more detail in Section 3-2.

01 Identity & Future Opportunities

To connect to Country, identity, character and culture of the place while safeguarding opportunities for the future of the Precinct.

02 Industry & Innovation



To strengthen core industrial uses and introduce new compatible, innovative and emerging industries that create local and regional employment, while facilitating the growth of international trade.

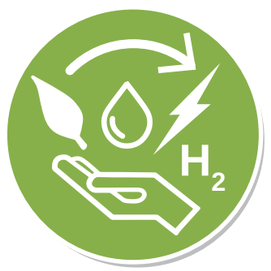
03 Infrastructure & Networks

To provide efficient infrastructure through technology, resilient supply chain networks and effective transport connectivity.

04 Integration, Conflicts & Buffers

To manage land-use, environmental and industry conflicts and natural hazards (particularly flood and coastal hazards) with effective planning, buffers and design.

05 Sustainability & Resilience



To embrace a renewable energy future, support efficient resource management, low-carbon manufacturing and circular economy practices.

Executive Summary

Importance of Cringila and Port Kembla Stations

Cringila and Port Kembla Train Stations will play an important role in supporting the precinct in achieving its vision. This may include providing additional services to support surrounding residential and employment catchments as part of broader efforts to reduce private vehicle use on key port access roads.

Alongside this, augmentation to key infrastructure (including train stations), subject to investigation, may be required to improve travel choices, support future communities and better respond to the form and function of surrounding local centres. For example, the relationship between Port Kembla Station and Port Kembla Town Centre may require stronger connections and improved access to make it more functional and accessible to the community as the precinct develops.

Potential Public Transport Node and Interchange

A vital component for the upgraded train stations is connections to associated public and active transport linkages. The provision of space for an interchange will increase the use of these stations by local residents, visitors and workers and improved connections between the Port Kembla Train Station and Town Centre would make both more functional and accessible.

Sub-Precincts

Port Adjacent - land that directly interfaces with the Port.

Port Enabled - land that benefits from the infrastructure and access provided to the Port.

Port Fringe - land that edges the Precinct and provides a buffer to surrounding sensitive interfaces.

Interface Buffer

The identified location of desired or expanded future landscape and built form buffers relate to areas where additional protection may be required to minimise any potential impacts where Port and heavy industrial activities adjoin areas with potential residential uses.

Environmental Protection and Opportunity for Improvements

Existing and proposed green space across the Precinct (and catchment), particularly in the vicinity of creek lines, provide opportunities for improvements to flooding, sedimentation ecology and amenity, as evidenced in Greenhouse Park. Some areas have also been identified as potential locations for endangered species, requiring additional environmental protection.

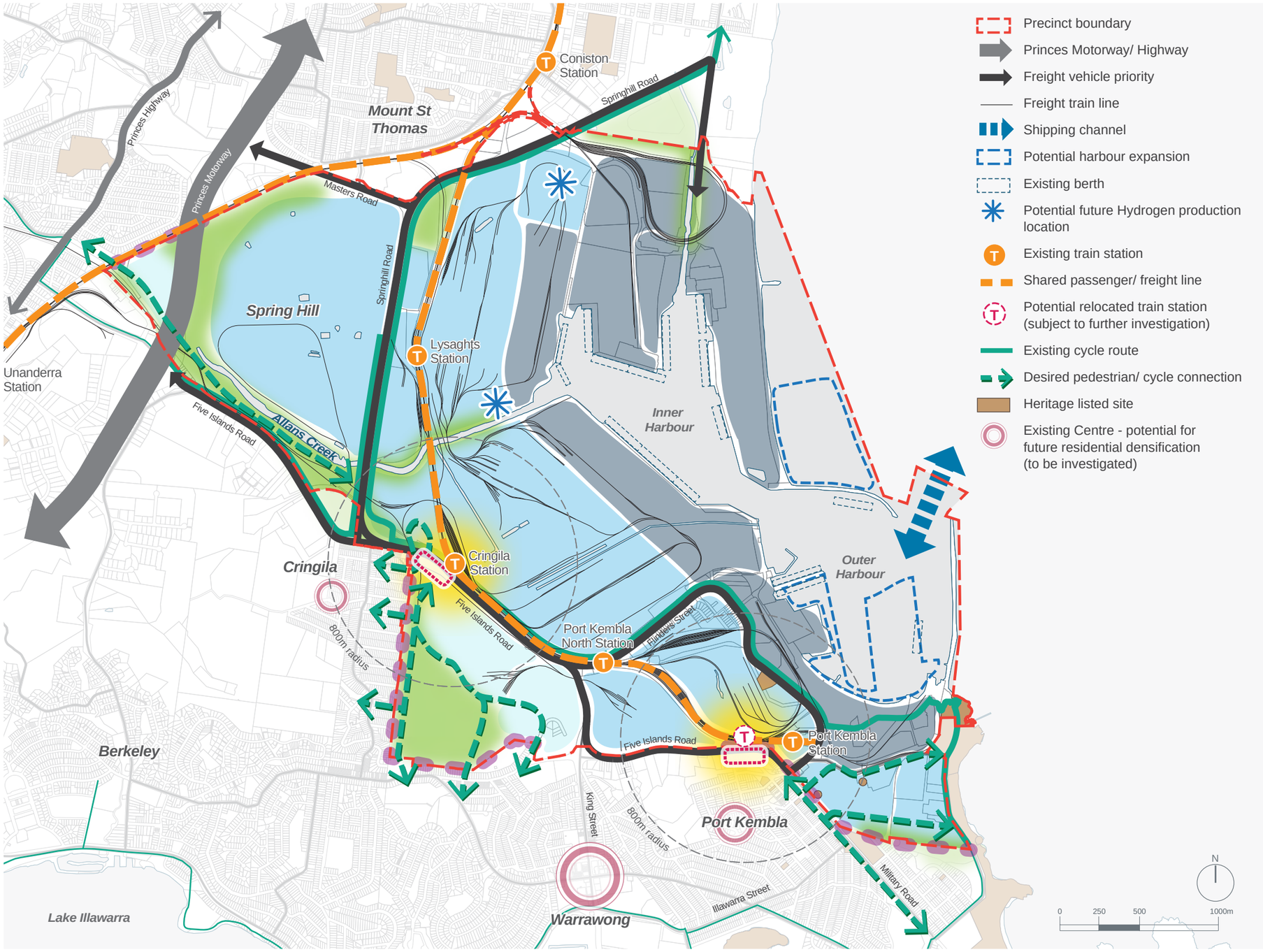


Figure 1 Port Kembla Structure Plan

01

Introduction

This section provides a background to the Structure Plan and identifies the purpose and need for a Plan as well as defining the extents of the Precinct boundary.

01 Introduction

1-1 Background

Port Kembla has been identified as one of the seven regionally significant employment precincts within the Illawarra Region, as identified in the Illawarra Shoalhaven Regional Plan (ISRP). These precincts will support jobs growth and development, and will generate significant economic benefits for the local community.

The Port at Port Kembla is one of three working ports within New South Wales, with the other two being Port Botany and the Port of Newcastle. The Precinct has a range of attributes and unique advantages which can be further leveraged: well established transport connections to the regional road network, a rail network including both public and private rail lines, and proximity to both an International and Regional Airport (Sydney and Shellharbour); the port is the deepest seaport on the eastern seaboard; access to service infrastructure, including high voltage power, gas and recycled water, along with the growing 'green energy' options; and human capital, with a large and growing pool of graduates and research capabilities, including the potential for partnerships with University of Wollongong and BlueScope's innovation and research capabilities.

The ISRP recognises that retaining and managing existing employment land, across these precincts, whilst mitigating the various barriers, will encourage new opportunities and the development of new technologies, including catalytic investment.

This future involves a shift from traditional forms of industry and manufacturing, towards advanced and smart industries and manufacturing, including areas such as artificial intelligence and robotics. E-commerce is also driving demand for suitable warehousing and logistics support facilities. These facilities require an efficient supply chain, and significant warehousing capacity close to major population centres.

In June 2022, the Department of Planning and Environment (the Department) prepared the Port Kembla Regionally Significant Employment Precinct Profile, prepared in accordance with Action 3 of the ISRP. This study identified several opportunities to support the future requirements of the Port, whilst also recognising the need for greater collaboration amongst the numerous stakeholders, all of whom have a vested interest in the success of this Precinct, and the new opportunities that will become available in the future.

Previous approvals and strategies have also identified a range of possible futures including the potential for port to service defence, container wharfs and cruise ships, support renewable energy production and manufacturing and for the surrounding areas to support appropriately located housing and population serving facilities.

At Port Kembla, recognising the value of the existing roles and functions, whilst also supporting its emergence as an international trade hub, NSWs second container terminal and an emerging hydrogen hub, will help grow the State economy and provide jobs across the region.

1-2 Purpose of the Structure Plan

The need to develop a Structure Plan (the Plan) for the Precinct of Port Kembla became evident as a result of the various potential future uses of the port (outer harbour development and container terminal, BlueScope's blast furnace reline, green steel production, a hydrogen hub, power station, gas terminal, offshore wind farms, potential defence base and Renewable Energy Zone (REZ)) identified within the precinct profile, as well as master planning activities that relate to various land holdings across the Precinct. The Plan provides an overarching framework, or 'skeleton' for the area, and does not seek to provide fine grain detail relating to individual sites. It will provide a vision and guiding principles to support future development, and encourage collaboration between the many stakeholders.

The Plan has been informed by an analysis of the background information, including a strategic document review and an assessment of the existing natural and physical context, including existing uses, infrastructure networks, and the identification of opportunities and constraints that will impact the future of the port area.

Consultation and engagement with a range of stakeholders has also been undertaken, to gain an insight into what is important within this Precinct, including what makes it work and what could work better.

1-3 The Precinct

View towards the Precinct from Cringila

The Structure Plan covers the Precinct identified as Port Kembla on the Land Application Map, as referenced within State Environmental Planning Policy (SEPP) Transport and Infrastructure 2021 – Chapter 5 Three Ports. This area permits port-related and industrial uses, including heavy industry.

The Precinct includes both the Inner and Outer Harbour area of Port Kembla. NSW Ports is the leaseholder for these active port areas, along with areas of land immediately adjacent to the water's edge which are used to support port activities, such as grain and coal loaders. The extent of the Lease Area is identified in Figure 2.

The Precinct lies to the south of Wollongong with the suburb of Mount St Thomas located to the north while the suburbs of Cringila and Port Kembla are located to the south and west of the Precinct.

The Precinct is edged and bisected by a series of large roads, designed to accommodate heavy vehicular movement. These include Springhill Road, Five Islands Road and Military Road. Other major infrastructure that crosses the Precinct includes the shared passenger / freight train line, with four stations within the Precinct (Lysaghts, Cringilla, Port Kembla North and Port Kembla), and a vast network of private freight only rail lines, some of which are active and some of which are not currently operational.

Also bisecting the Precinct is Allans Creek, a watercourse that discharges into the Inner Harbour as well as a number of local tributaries within the wider Allans Creek catchment. This catchment drains the area to the north west as far as the escarpment, and can contribute to the flood risk within the Precinct.

Within the Precinct are large areas of port adjacent industrial land held by various land owners. BlueScope Steel holds the largest parcel of land (approx 811ha / 55% of the SEPP area), the majority of which is used for heavy industrial steel production, located west of the harbour. BlueScope Steel are undertaking a masterplan process (expected late 2023) and have identified approximately a quarter of their land (around 200ha) as non-core, or underutilised, based on an internal assessment of land surplus to core business needs. This land is located generally in the south western section of the Precinct.

Another large area identified as underutilised is the site of the former Port Kembla Copper smelter, in the south east part of the Precinct, near the Port Kembla town centre and light industrial area which is currently vacant.

Built form within the Precinct is generally very large industrial buildings, with some smaller scale built form originally intended for administration and associated uses. The topography of the area, along with the scale of the built form, makes the Precinct highly visible from significant distances.

Figure 2 Structure Plan boundary - SEPP extents

01 Introduction

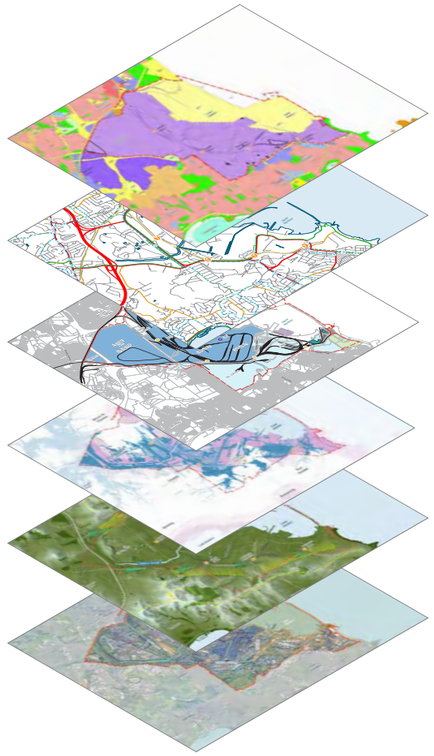
1-4 The Process

The process used to develop the Port Kembla Structure Plan focused initially on understanding the Precinct, then on developing a Vision and Guiding Principles that were derived from the array of strategic work that had been carried out previously. Once a vision, or direction, had been developed the structure plan was developed to respond to the principles in a logical coherent way, that supports the wide range of uses that occur in this area, and the ambitions of the wide array of stakeholders, all of whom are seeking to maximise the value that they draw from this area.

The first stage of the project focused on analysis, which was undertaken in order to gain an understanding of the Precinct and all the parts that contribute to its viability. This analysis considered the following components: existing land zoning, current uses, topography and landform, flood risk management, coastal processes including threats to water quality, coastal hazard risk management and biodiversity, shipping and freight access, and public movement. This analysis was supplemented by the first Stakeholder Workshop, which focused on 'fact finding' and seeking to understand what works and what doesn't work in the Port currently. All these inputs were then distilled into diagrams, focusing on the opportunities and constraints that will impact on the future of this place.

Concurrent with the analysis, there was also a review of existing strategic documents undertaken, to set the strategic context within which this Precinct operates. As an asset of state significance, the Port of Port Kembla is viewed as essential for the future economic strength of New South Wales, as such it is integrally connected to strategic plans across the state. An understanding of this strategic position is required in order to ensure that any proposed future plans for the Port are in alignment with other strategic projects being carried out. The culmination of this strategic review, and with input from the second Stakeholder Workshop, a Vision and Guiding Principles were developed that place Port Kembla in the wider strategic context.

From all this analysis and strategic review, the Structure Plan was developed, with its related layers, and then tested in the third Stakeholder Workshop, to ensure that it accurately represented the desired future for this Precinct, and that it provided a robust, yet flexible 'skeleton', upon which individual stakeholders could build their future plans for sites across the Precinct. Inherent in the development of the Structure Plan is also an acknowledgement that the future is not fixed, and that new technologies, newly adopted plans and new strategic imperatives may change the direction this Precinct moves in.



1-5 Assumptions

Given the future of this Precinct is not clear, and a series of decisions could change the future direction, the following assumptions have been used in the preparation of this report:

- Assume the use of the existing passenger / freight line for future upgrades in the Short Term (<10 years).
- Assume the shared passenger / freight rail line arrangements will be retained along the spur line that terminates at Port Kembla Train Station.
- Assume additional rail freight capacity between the Port of Port Kembla and Western Sydney will be delivered in the long-term (20+ years).
- The decision by the Federal Government, concerning the location of a defence base to house Australia's proposed fleet of nuclear powered submarines is pending. Port Kembla is one of three East Coast locations being considered. If Port Kembla is the preferred option, this would have a significant impact on any proposed future for the Port.
- Assume that environmental issues, such as flooding and the presence of endangered species (Green and Golden Bell Frog), can be managed and mitigated through design outcomes.
- The Outer Harbour Development (Container Terminal) will be delivered in the long-term which would involve reconfiguration and upgrades of the port rail network.

1-6 The Purpose of the Precinct

"Port Kembla is NSW's port of growth. Located south of Wollongong, it is a key infrastructure asset and economic driver in the Illawarra region."

NSW Ports Port Development Plan 2019–2023

The Precinct has been identified as a Regionally Significant Employment Precinct in the Illawarra Shoalhaven Regional Plan. The Precinct incorporates the port of Port Kembla and the BlueScope steelworks which both play a critical role in supporting jobs growth and development and generating significant economic benefits for the community.

The Illawarra Shoalhaven Regional Plan 2041 (ISRP) identifies the need to "Protect Port Kembla as an international gateway for freight and logistics" by reducing land use conflicts from adjoining land uses and considering the suitability of high traffic generating developments on all roads that service the Port, to reduce conflicts with dangerous goods vehicles.

The ISRP also identifies that "The Port has accessibility to global markets, heavy industrial land and a large skilled labour base supporting its position as a future hub for hydrogen production". These skilled workers currently live across the Illawarra-Shoalhaven District and future urban growth areas such as the West Lake Illawarra Growth Area (which has capacity for 28,000 new dwellings) will provide additional residential opportunities to support future employment growth. Additional detailed population and demographic analysis will be required to determine the future transport requirements to connect these living and working opportunities to the Precinct and to encourage a sustainable transport mode change.

Alongside the need to retain and manage employment land, the ISRP also identifies the need to create flexible planning and development controls that will respond to new opportunities and technologies, including catalytic investments, identifying that there is an opportunity to shift from traditional industrial and manufacturing into advanced and smart manufacturing, artificial intelligence and robotics.

Advantages of the Precinct include the location's access to major domestic and international markets through extensive road, rail, air and water links and the large area of industrial zoned land which allows for 24/7 operations.

At a regional level the Precinct benefits from effective connections to the north and south via the Princes Highway, in combination with the M1 Princes Motorway, with access to Sydney and Sydney Airport and Nowra and the Shaolhaven respectively. Picton Road, Appin Road and the lllawarra Highway provide important connections to the west.

The Precinct is also connected to the Illawarra/ South Coast Line and the Moss Vale-Unanderra Line via a network of freight lines that criss cross the Precinct and connect to the Port.

At a local level, employment and port related activities across the Precinct are supported by nearby light industrial areas including areas to the south, in Port Kembla and to the west in Unanderra and Kembla Grange.

"The Port directly and indirectly supports over 3,500 jobs and contributes $543 million to the regional economy each year".

Illawarra Shoalhaven Regional Plan 2041

Figure 3 NSW South Coast region and connections

1-7 Other Plans for the Precinct

This Structure Plan is intended to help guide, inform and sit alongside other master plans prepared for the Precinct. The recently released NSW Ports 2063 Master Plan (2023) and the upcoming BlueScope Master Plan (expected late 2023) are two key strategic documents to be considered in the future planning for the area, as they have been produced by the two largest Precinct land stakeholders.

NSW Port 2063 Master Plan (2023)

The port of Port Kembla is NSW's largest terminal for vehicle imports and grain exports, and the second largest terminal for coal exports. It services increasing population-driven trades such as construction material imports which is expected to increase from around 1.1m tonnes in 2022 up to 4m tonnes by 2063.

The NSW Ports 2063 Master Plan (2023) presents a 40 year vision for growth at Port Kembla with plans that accommodate trade growth and diversification, increased use of rail and protection of industrial lands at Port Kembla. It reiterates Port Kembla as the location for the development of a future container terminal as Port Botany reaches capacity.

"Port Kembla will continue to grow and diversify its import and export trade and be a critical part of NSW's green energy future."

NSW Ports 2063 Master Plan (2023)

The Master Plan identifies the strengths of the Port as its "short and deep shipping channel; ability to handle large cargo vessels; 24/7 operations; excellent supply of surrounding industrial land; proximity to the population centre of Greater Sydney; and rail and road connections".

It identifies risks to the successful operations of the port, including increased non-port traffic and sensitive adjacent uses such as residential development and activities. It proposes that State and local planning policies should protect and enhance industrial lands which act as buffers and minimise residential encroachment around the port.

It also emphasises the importance of protecting the capacity of Masters Road, Springhill Road and Five Islands Road as key port access roads for freight trucks. A strategic review to identify requirements and improvements to the road network to accommodate wind turbine access and movement is also suggested in the plan.

Figure 4 Key Port Kembla Port Trade Growth areas *Source: NSW Ports 2063 Masterplan, 2023*

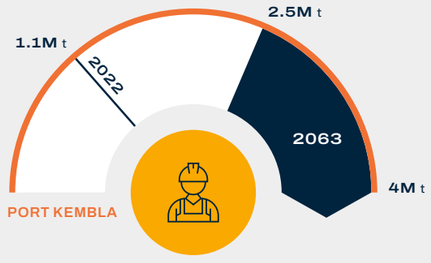


Figure 5 Predicted Port Kembla bulk construction materials growth *Source: NSW Ports 2063 Masterplan, 2023*

BlueScope Master Plan

The Precinct is also the location of the BlueScope Steelworks which has been running on the site adjacent to the port since the 1920s and is one of the countries largest steelworks. The Steelworks produces 2.6 million tonnes of world leading, raw and coated steel a year and contributes to the industrial and heavy manufacturing nature of the area.

In 2022, BlueScope announced that it had engaged Bjarke Ingels Group (BIG) and ColonySix, to develop a Master Plan for excess landholdings (approx. 200 hectares) across the Precinct. This document is expected to be released in late 2023.

source: ColonySix

02

Understanding the Precinct

This section analyses the physical context of the Precinct including the natural landscape, existing uses, freight infrastructure, movement networks and identified opportunities and constraints which have informed the development of the Precinct Structure Plan and Vision.

02 Understanding the Precinct

2-1 History and Current Uses

Figure 6 Aerial view looking west over the Australian Iron and Steel factory in Port Kembla, 1937 © Royal Australian Historical Society: Wikimedia Commons

WWII anti-tank artefacts in the Port Kembla Heritage Park

Public launching facilities at the Outer Harbour Boat Ramp

BlueScope Steel is a major land holder in the Precinct

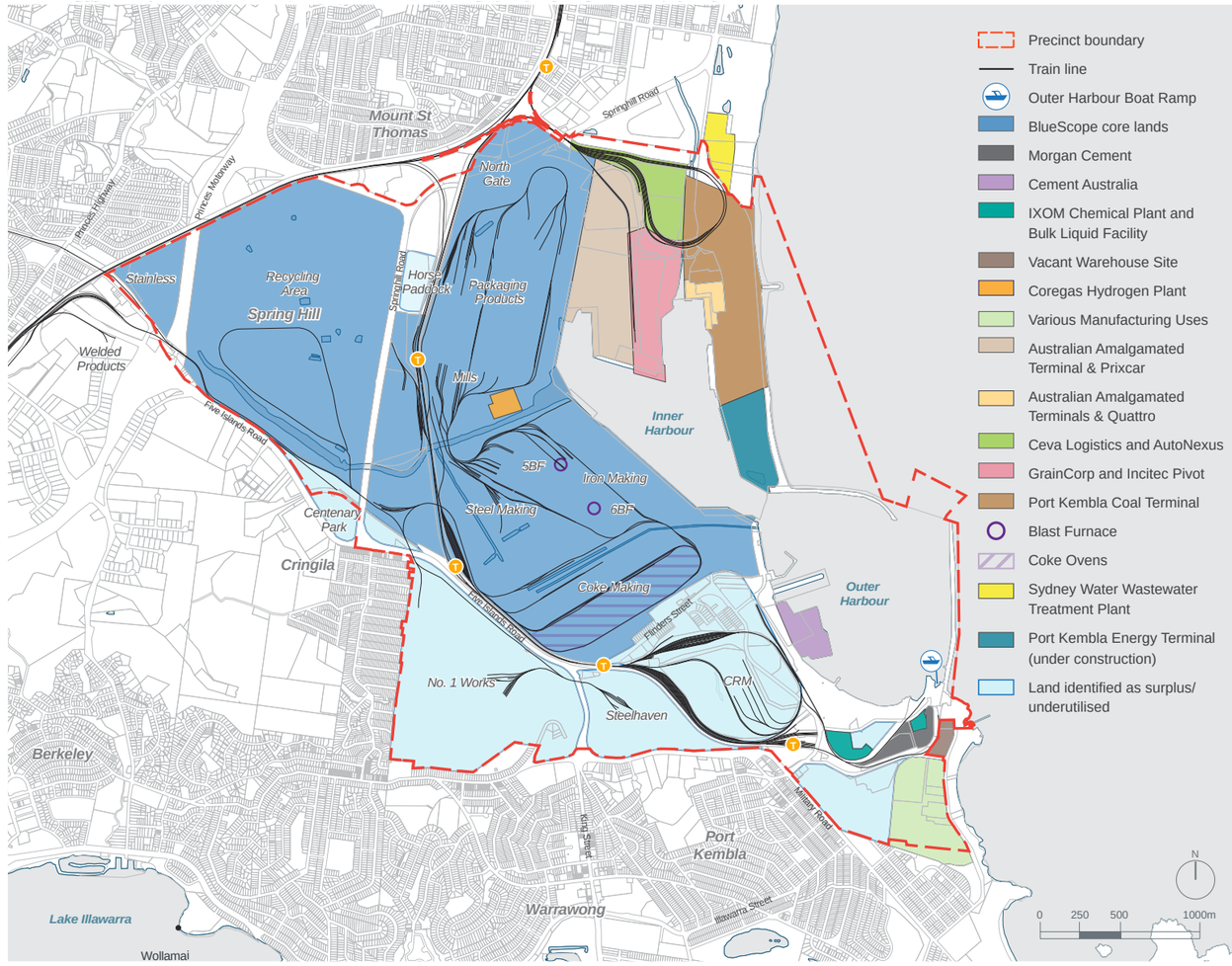


Figure 7 Current uses within the Precinct

The traditional custodians of the land around Port Kembla are the Wadi Wadi and Dharawal people of the Yuin Nation.

The port was first opened in 1883 to export coal from Mount Kembla. Construction of the breakwaters, created to protect the port, commenced in August 1901 and were completed in 1937.

Construction of the Inner Harbour was approved in 1955 and involved the dredging of Tom Thumb Lagoon. The Inner Harbour was officially opened in November 1960 with dredging completed in 1962. Coke production, established in 1899, was followed by steel production which was first established in 1924.

The Precinct currently contains a mix of uses related to the working Port including a range of dry and liquid bulk handling, general cargo, grain and coal export and large amounts of general use hard stand, often used for import of motor vehicles. The majority of heavy industrial uses within the Precinct are related to steelmaking, and is operated by BlueScope Steel.

Other industrial uses in the Precinct include the Coregas Hydrogen plant and the IXOM Chemical Plant and Bulk Liquid Facility. The southern portion of the Precinct contains areas which have been identified as surplus and/or underutilised including areas known as Steelhaven, No.1 Works, Commonwealth Rolling Mills (CRM) and the former copper smelter site which are the subject of current investigation for potential future uses.

The Precinct also contains a series of recreational and tourist destinations such as the Outer Harbour Boat Ramp which has become one of the most used public launching facilities in the Illawarra for permitted public boating and fishing in the area. The Eastern Breakwater, the Battery Military Museum and the Port Kembla Heritage Park also attract tourists and visitors to the Precinct.

2-2 Existing Land Zoning

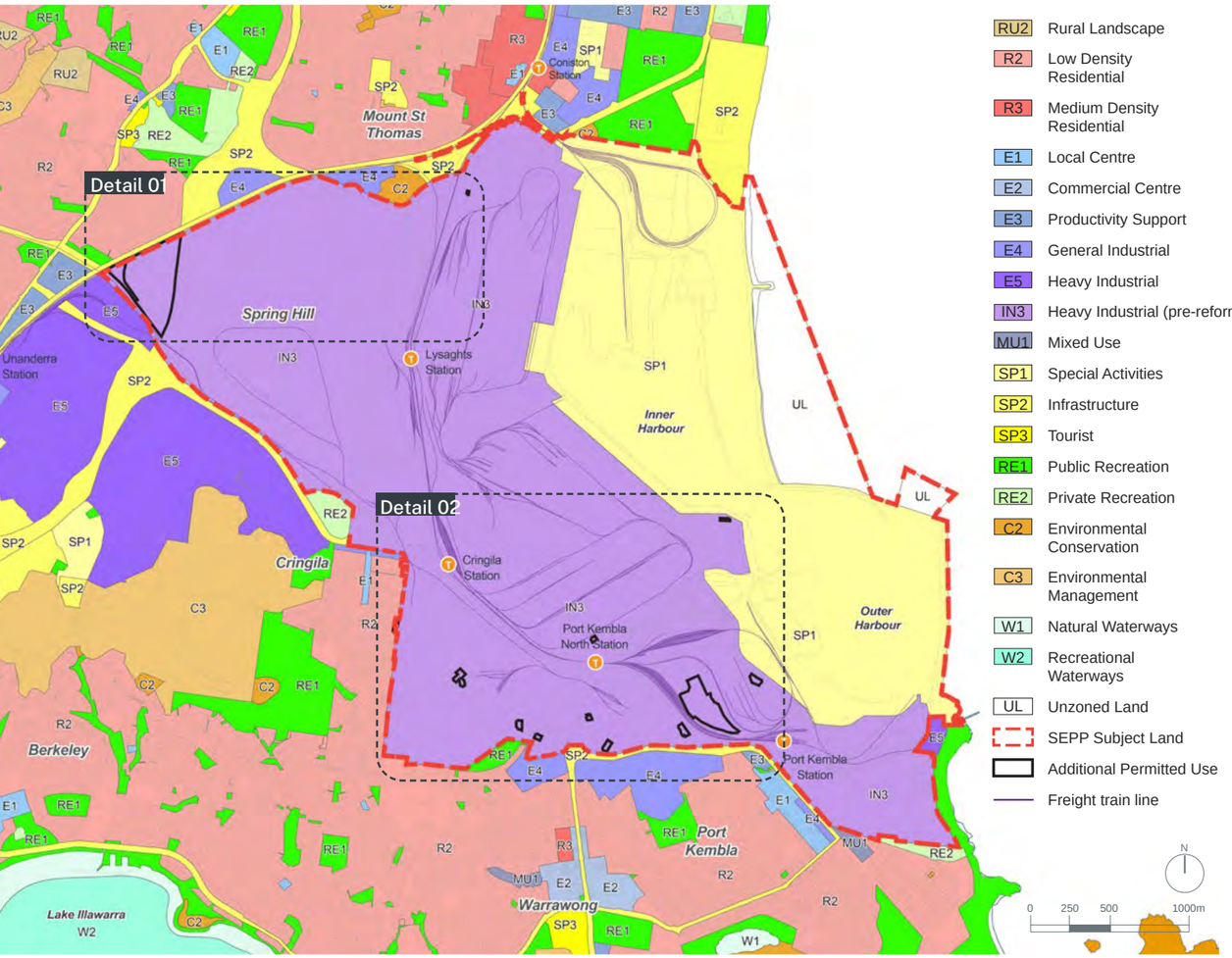


Figure 8 Land Use map

The Precinct's site boundary is defined by the Subject Land boundary in the State Environmental Planning Policy (Transport and Infrastructure) 2021 – Chapter 5 Three Ports.

The land zoning for the subject area is divided between 'IN3 - Heavy Industrial' uses and 'SP1 - Special Activities' uses (note: the 'IN3 - Heavy Industrial' use is expected to change to 'E5 - Heavy Industrial' following State employment zoning reforms). A large portion of the area zoned 'SP1' is water/ harbour.

Suburbs surrounding the Precinct include Mount St Thomas, Cringila and Port Kembla and feature large areas of 'R2 - Low Density Residential' zones which in some locations directly adjoin the Heavy Industrial zones, creating potential land use conflicts. In other locations 'E4 - General Industrial' and 'E1 - Local Centre' serve as buffers and provide a transition to the residential areas.

2-3 SEPP and Permitted Uses

State Environmental Planning Policy (SEPP) Transport and Infrastructure 2021 – Chapter 5 Three Ports

The permitted activities within the Precinct are controlled by the State Environmental Planning Policy (SEPP) Transport and Infrastructure 2021 – Chapter 5 Three Ports. The aims relating to land within the Precinct include:

- to provide a consistent planning regime for the development and delivery of infrastructure on land in Port Botany, Port Kembla and the Port of Newcastle,
- to allow the efficient development, re-development and protection of land at Port Botany, Port Kembla and the Port of Newcastle for port purposes,
- to specify matters to be considered in determining whether to grant consent to development adjacent to development for port purposes,
- to ensure that land around the Lease Area is maintained for port-related and industrial uses, including heavy industry on land around Port Kembla.

Permitted uses

There are two zones within the Precinct, IN3 - Heavy Industrial and SP1 - Special Activities. Key permitted uses within the IN3 zoning include depots, freight transport facilities and warehouse or distribution centres. Key permitted uses within the SP1 land which is focused around the harbour include jetties, moorings, port facilities, wharf or boating facilites and navigation and emergency response facilities.

Under Clause 5.21 of the SEPP there are a few small areas within the Precinct which allow additional permitted uses (see Figure 9). Under Clause 5.21 (4) these additional permitted uses must be temporary for a period of no more than 5 years and must be terminated on or before the sale, transfer or other disposal of the land.

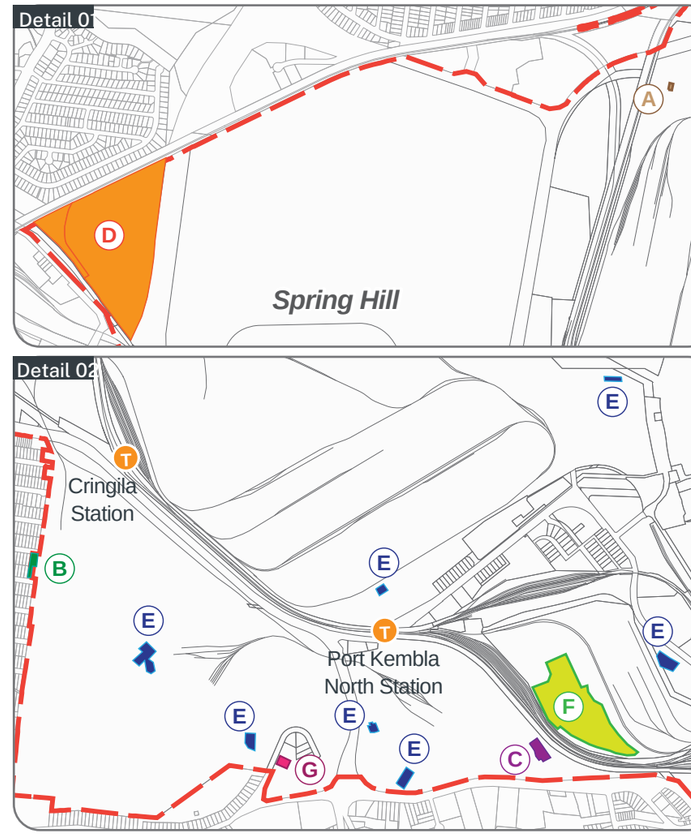


Figure 9 Additional Permitted Uses within the Precinct - Detail

2-4 Topography and Landform

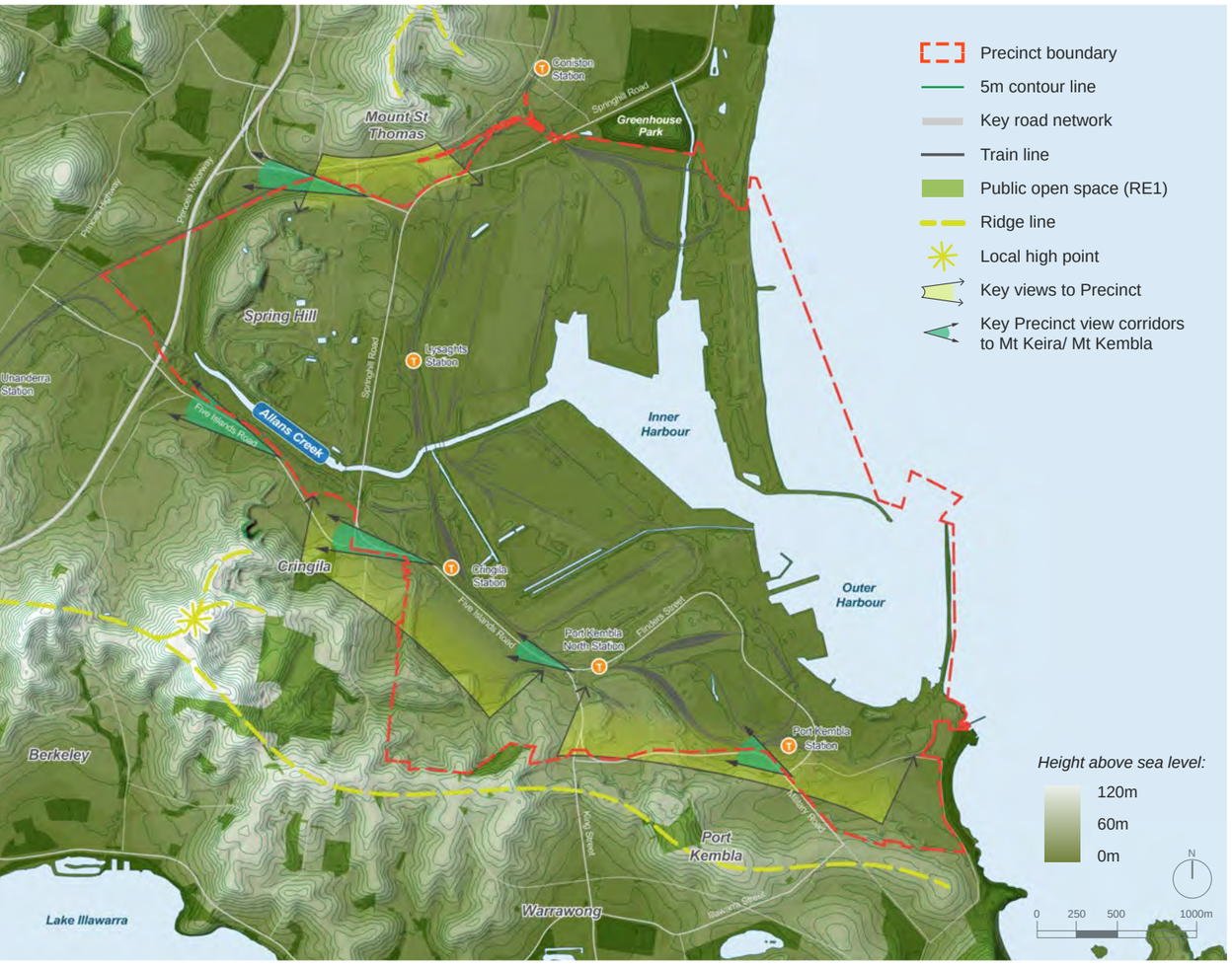


Figure 10 Landform and topography map

The Precinct is situated on low lying land and includes a man-made Outer Harbour protected by breakwater walls and an Inner Harbour constructed by dredging a former lagoon. To the north and south of the Precinct extensions of the Illawarra Escarpment create ridge lines through the suburbs of Cringila, Berkeley and Mount St Thomas, which provide uninterrupted views towards the Port.

The landform of the Precinct is characterised by the site's history as Tom Thumb Lagoon which prior to the industrial uses, was predominantly estuarine wetlands comprising natural saltmarsh, mangroves and other native vegetation. Today, local restoration, and rejuvenation efforts to improve the ecological value of the area have occurred around Greenhouse Park to the north of the Precinct.

2-5 Flooding and Coastal Hazards

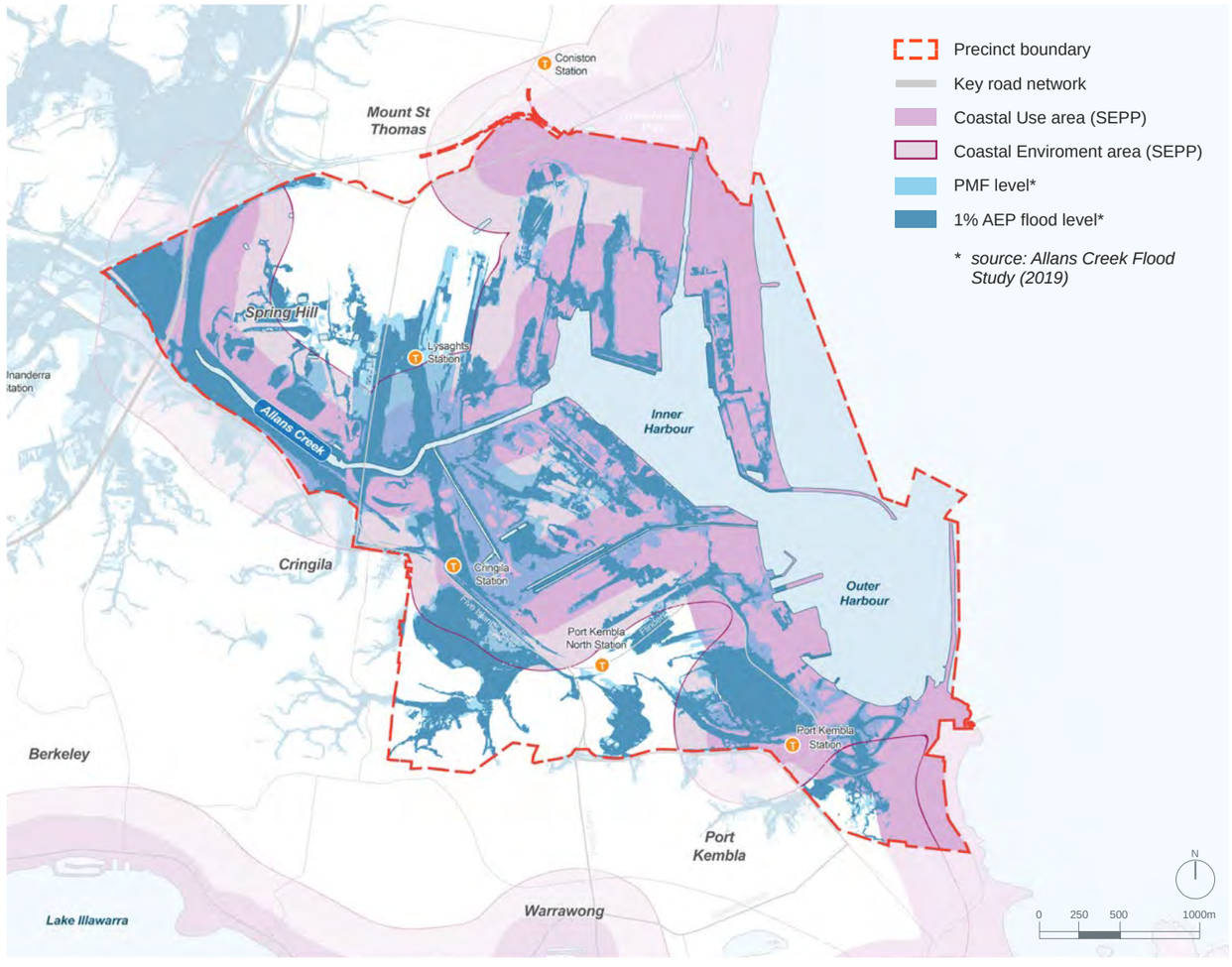


Figure 11 Flooding and coastal hazards map

Allans Creek runs east-west through the Precinct between the Illawarra Escarpment and the Port Kembla Inner Harbour. It is a key estuary that services a catchment of 45km^2. The Precinct is located on a floodplain at the base of this catchment. A majority of the Precinct's flooding impacts are seen around the main Allans Creek tributary, Byarong Creek and in the low lying land in the south of the Precinct from local tributaries.

The Precinct also contains a large amount of land zoned 'Coastal Use' and 'Coastal Environment' in the SEPP (Resilience and Hazards) 2021, which requires every coastal jurisdiction to work towards integrated management and sustainable development of coastal and marine areas.

2-6 Shipping and Freight Access

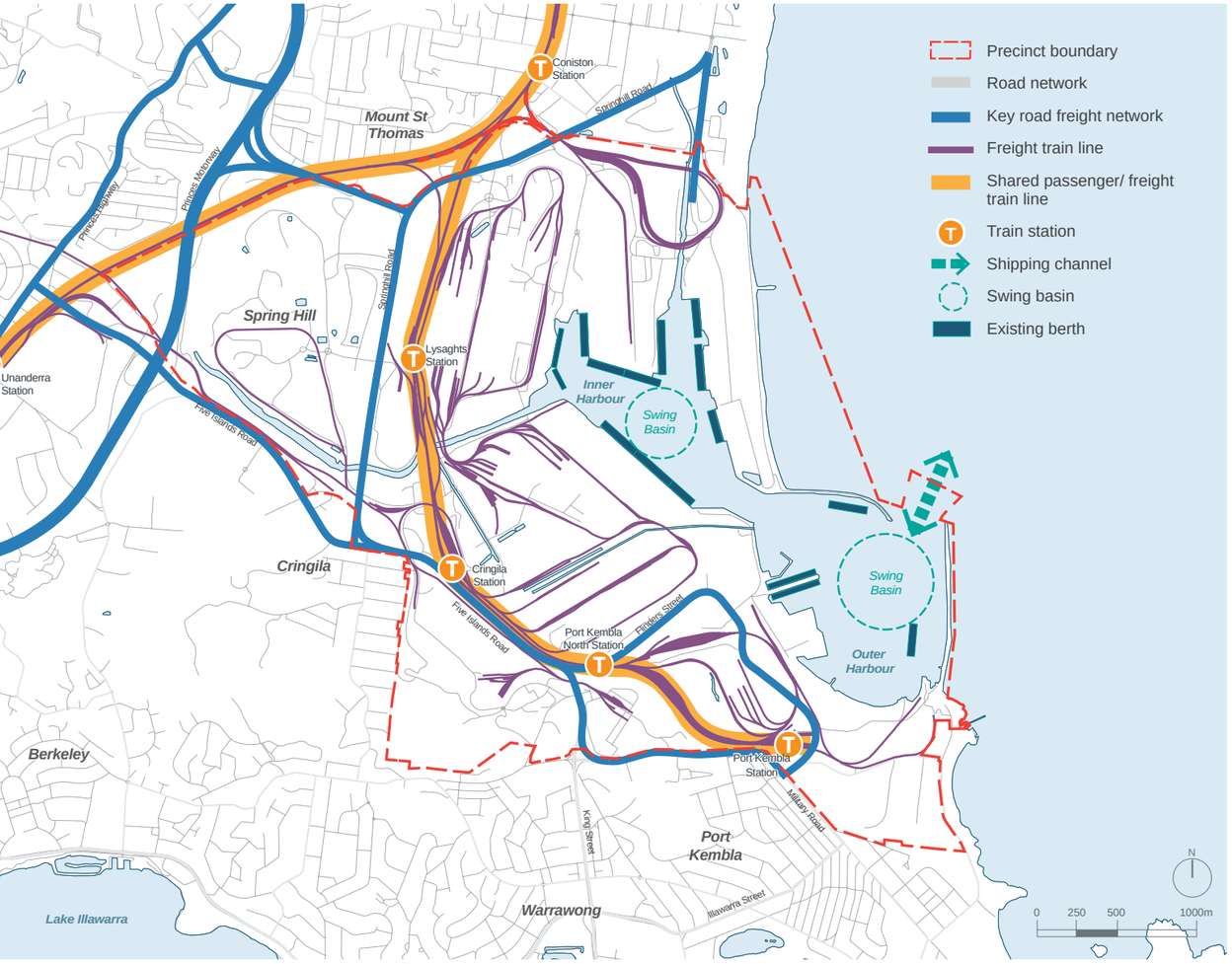


Figure 12 Shipping and freight access and movement

Shipping and freight access is a critical component to the successful operation of the Port and the heavy industrial uses in the Precinct. The rail and harbour access is supported by a network of key road freight routes such as along Springhill and Five Islands Roads.

Precinct shipping and cargo services are facilitated by 18 berths located in the Inner Harbour and Outer Harbour, with access via the shipping channel situated between the two breakwater walls.

A network of dedicated freight rail lines are located across the Precinct and connect the Port with nearby industrial precincts such as Kembla Grange and Unanderra as well as to broader NSW destinations and the South West Sydney growth areas. A shared passenger and freight rail line also provides commuter access through to Port Kembla via the South Coast Line.

2-7 Public Movement

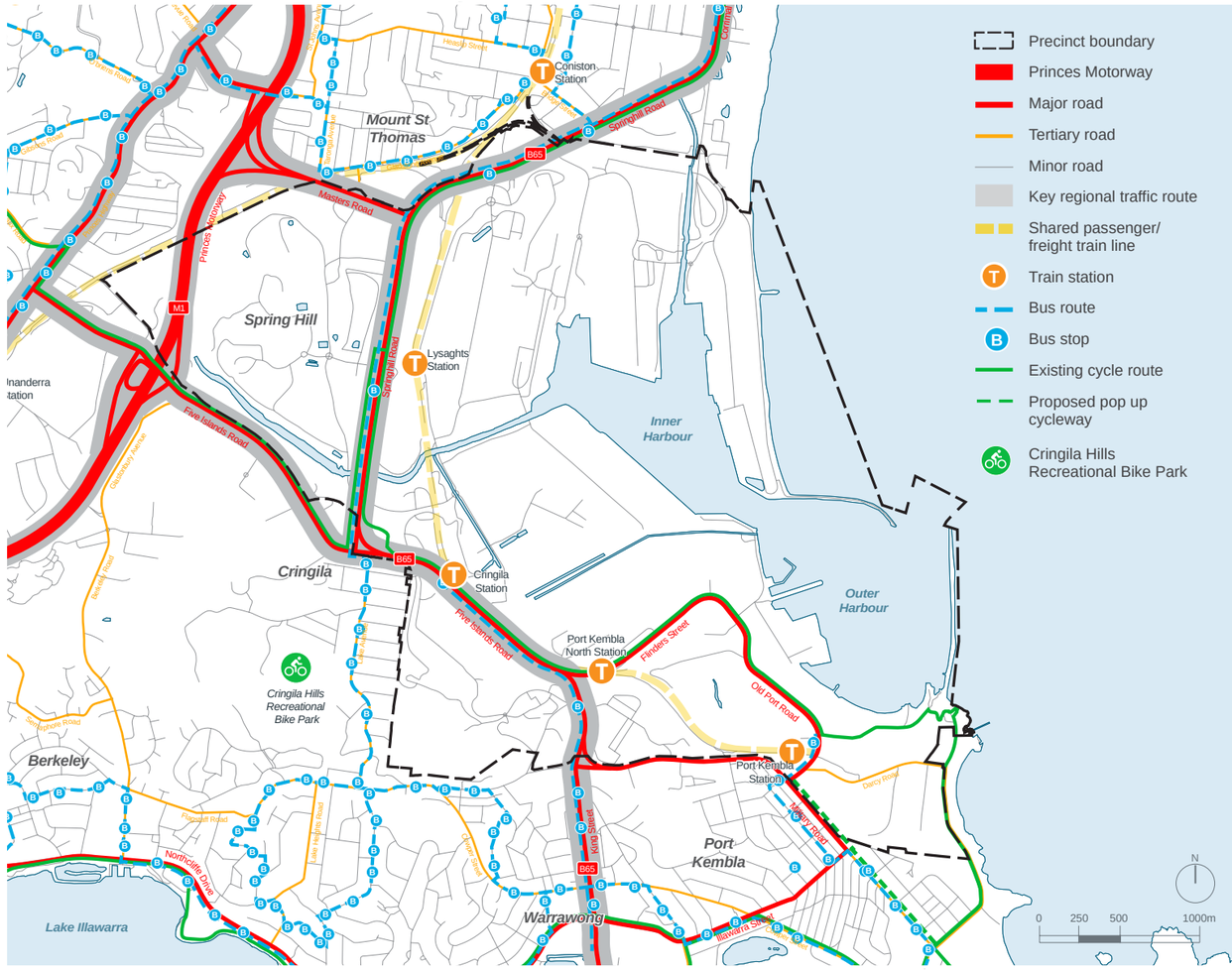


Figure 13 Road hierarchy and public transport network

The key arterial road in the region is the Princes Motorway (M1) which connects Sydney to Wollongong. Direct access to the M1 from Port Kembla is via Five Islands Road to the south or Masters Road to the north. Both roads are six lane carriageways that move large quantities of private vehicle and freight traffic. The Precinct also sees a large amount of north-south regional traffic travelling between nearby centres such as Shellharbour and Wollongong.

A network of public buses service the region with the concentration of bus routes and stops located through the residential areas of surrounding suburbs.

A coastal cycle route currently weaves through the Precinct and connects cyclists to Wollongong and Thirroul in the north to Lake Illawarra and beyond in the south. A mountain bike park is located in Cringila for offroad, recreational trail riding.

2-8 Environmental Considerations

Air

Local sources that can affect air quality in the region include industry, road transport, non-road equipment and transport (construction and mining equipment, rail locomotives and ships).

Future air quality in the Illawarra will be affected by population growth, changes in climate and changes in transport and industrial activity levels. There is an opportunity for the Precinct to consider ways to support the 'NSW Clean Air Strategy 2021–2030' to deliver better places by reducing impacts of air pollution on communities.

Noise

In general, sustainable land use planning and careful design and location of development offers the greatest opportunity to manage noise across the Precinct and to ensure local amenity, liveability and public health is not degraded due to background noise creep as the area transforms over time.

A precinct approach for the management of noise can be supported by the 'Noise Policy for Industry' (2017) prepared by the EPA.

Contamination

Contamination may threaten human health and the environment, limit land use and increase development costs.

Due to the industrial activities undertaken within the area, contaminated land management must be a critical strategic issue considered for the Precinct. A number of contaminated sites have already been registered with the EPA, however, additional parcels of land may also have legacy contamination within the Precinct.

A strategic precinct-based approach would be desirable where contamination extends across multiple lots, to better manage contamination as these areas undergo future development.

Flood Risk and Coastal Management

The Precinct requires flooding and coastal risks and hazards to be considered for the future growth of the area, including coastal erosion, tidal and coastal inundation and current and future risks from climate change.

Risk management plans will need to be considered in flood zones and coastal vulnerability planning areas, to reduce threats from inappropriate land use and to ensure appropriate development controls can be applied to future proposals.

The 'Erosion and Sedimentation Study and Riparian Lands Assessment – Allans Creek Catchment' (2002) provides detail around the risk of sediment loading in the catchment area and outlines floodplain management measures to protect and restore the riparian corridors and minimise erosion and sedimentation rates.

Note: It has been assumed that flooding and coastal risks can be designed out and/or managed through appropriate management plans and flood impact and risk assessments. All future development across the Precinct will need to be consistent with the NSW Government's Flood Policy, as set out in the Floodplain Development Manual and the Natural Hazards and Resilience (Coastal) SEPP.

Biodiversity

Parts of the Precinct have identified biodiversity value, with the endangered Green and Golden Bell Frog (Litoria aurea) found in the area. Microbat species are known to roost in the area and should be a consideration for any demolition (particularly of buildings and culverts).

The nearby Five Islands Nature Reserve is also recognised as a biodiversity hotspot for marine and seabird wildlife, including the oystercatcher and white-faced storm petrel, White-bellied Sea-eagle, Australian fur seal and sea lions. Upfront assessment of the various biodiversity issues will improve certainty to all decision making across the Precinct.

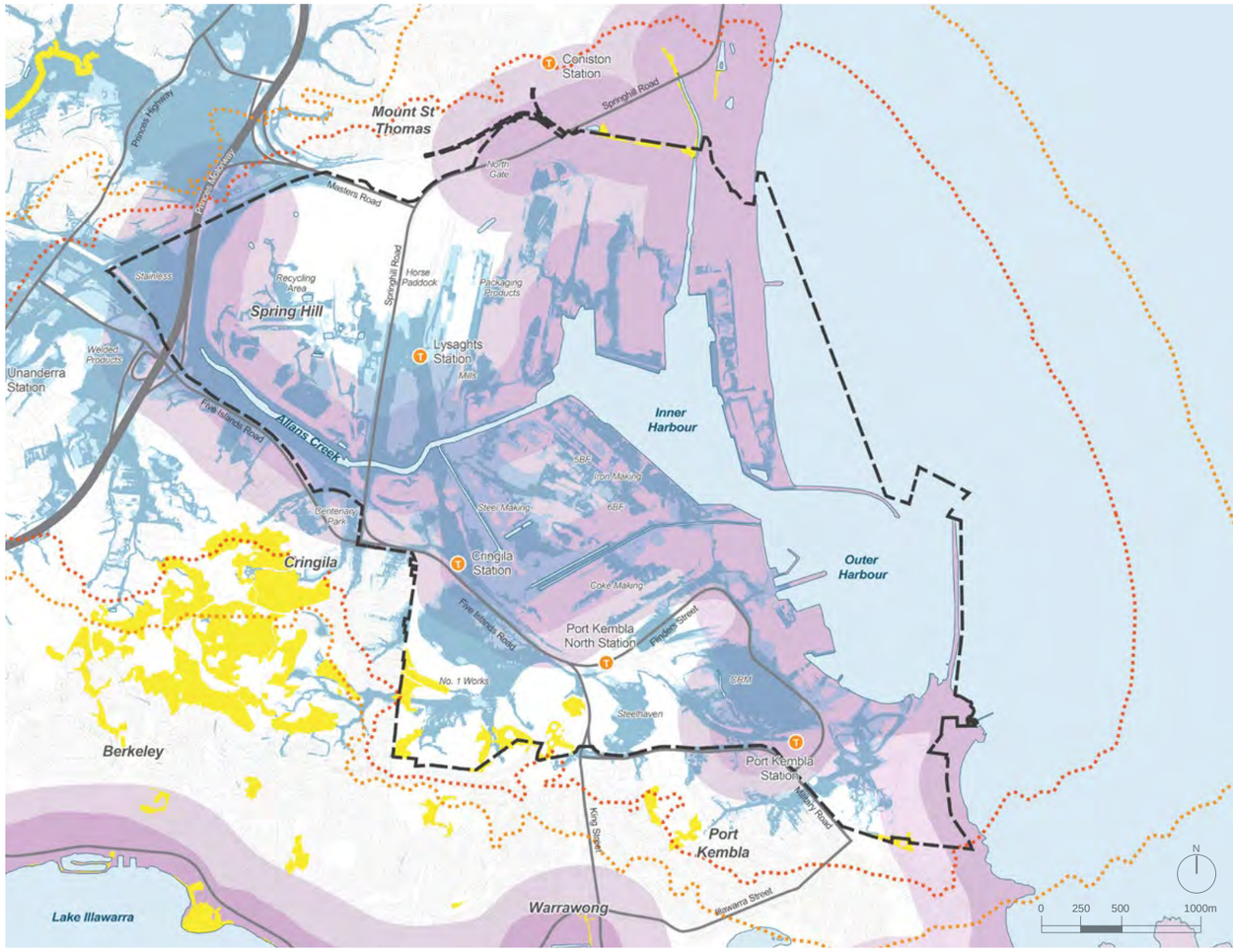


Figure 14 Port Kembla Precinct environmental considerations map

2-9 Challenges and Constraints

① Five Islands Road, Springhill Road and Masters Road are critical roads for vehicles and freight transport but their size and vehicle dominance makes them unpleasant, physical barriers which restrict active transport trips.

② There are sensitive interfaces between low density residential and heavy industrial land zones. Appropriate buffers are needed that protect residential amenity without compromising current or future industrial uses.

③ European heritage items are identified around the Outer Harbour. An Aboriginal Cultural Heritage Assessment is suggested to identify any potential Aboriginal heritage sites before development. Utilising the *Designing with Country* and *Connecting with Country* frameworks is also beneficial in forming an understanding of Country within and around the Precinct.

④ Land use safety and potential hazards and risks associated with existing (and proposed) port and industrial uses should be considered when determining the siting and location of potentially harmful or dangerous uses.

⑤ Some areas of the Precinct feature steep slopes (greater than 15º) which may not be suitable for some infrastructure or built form typologies.

⑥ The topography creates a basin that provides limited protection against acoustic or visual impacts on properties to the north of the Port Kembla ridge line.

⑦ Predicted adverse impacts (noise, air, light) of the Port need to be considered to inform the planning and design measures for industrial and residential developments. Management strategies are needed to prevent sterilisation of industrial land and minimise negative impacts on residences.

⑧ Waterfront (wharf) infrastructure is currently limited and additional infrastructure (such as the outer harbour development) may be required to accommodate future uses such as wind farm construction.

⑨ Planning should minimise any impact to the amenity of the existing public launching facilities and permitted public boating and fishing in the outer harbour area.

⑩ The provision of adequate infrastructure and utilities (eg. water, electricity and sewerage) to service future uses should be identified and optimised.

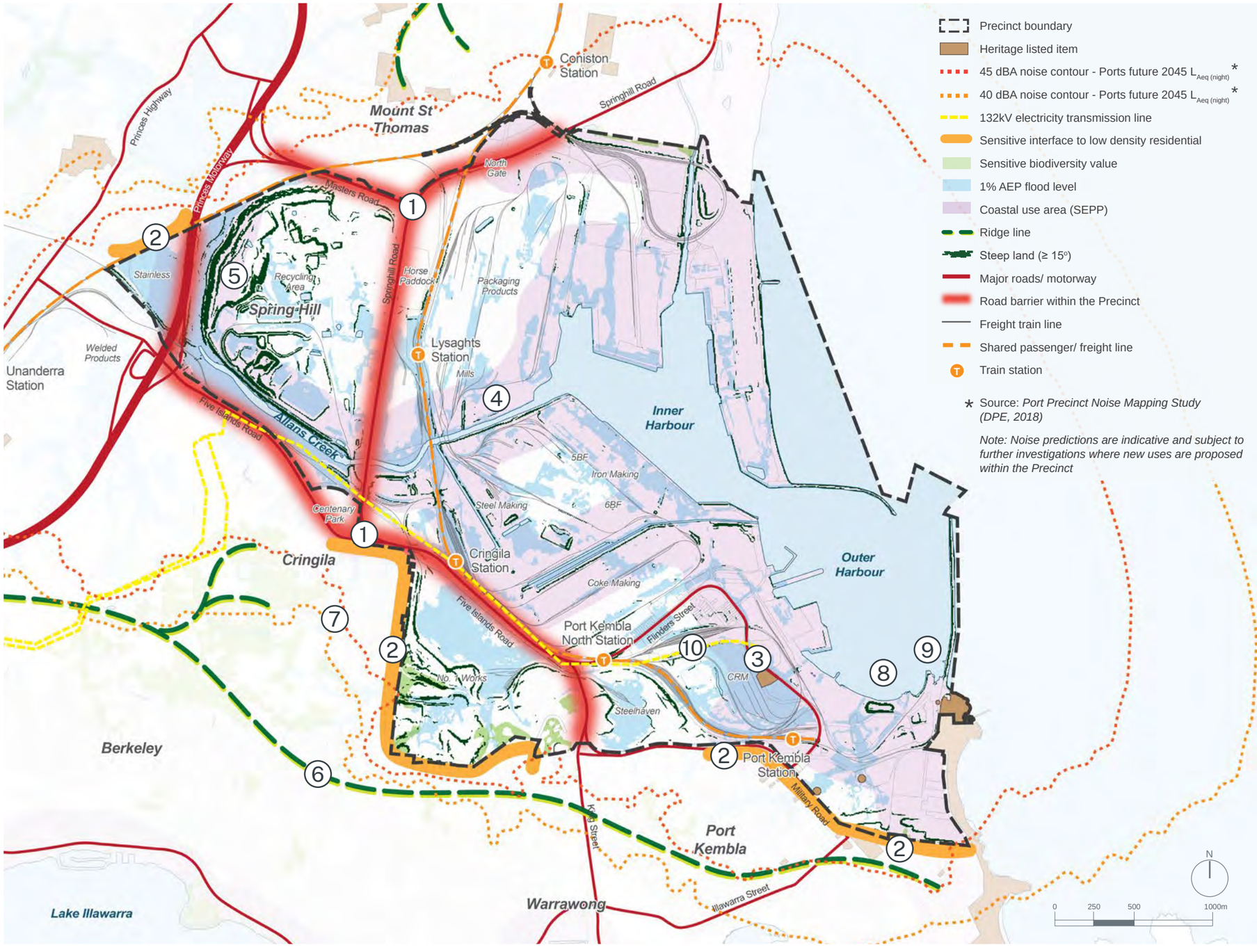


Figure 15 Port Kembla Precinct constraints mapping

2-10 Strengths and Opportunities

① The Princes Motorway (M1) is the backbone of vehicle and freight traffic in the Illawarra region and provides regional connections between Wollongong and Sydney to the north and Nowra and the South Coast.

② Five Islands Road, Springhill Road and Masters Road are critical roads within the Precinct which feed into the M1. There is an opportunity to identify ways to separate freight and local traffic to minimise conflicts, maximise the capacity of freight transport and support OSOM vehicle movements (e.g. for wind turbine blades).

③ Surplus and /or underutilised land identified in the southern part of the Precinct provides an opportunity to increase employment within the Precinct.

④ Existing freight rail infrastructure across the Precinct and corridors to Kembla Grange, Unanderra and Western Sydney should be protected and optimised. Any additional freight lines needed to support the Port and industrial uses should be identified.

⑤ Identification of additional Port uses that can utilise the harbour infrastructure such as a naval defence base and international trade hub and container terminal.

⑥ Proposed projects such as offshore wind farms and the Hydrogen Hub ecosystem will support the transition of the Precinct to a Renewable Energy Zone (REZ) but will likely require additional infrastructure (such as the outer harbour development) to be delivered.

⑦ Explore opportunities to promote active transport by enhancing existing train stations and improving pedestrian/ cycle access across Five Islands Road to improve access to jobs and housing and encourage modal shift.

⑧ Investigate and facilitate adaptive reuse of heritage items across the Precinct such as the CRM Plant and Gardens.

⑨ Protect and restore natural ecologies, waterways and open spaces such as Allans Creek and Greenhouse Park.

⑩ The ridge line creates uninterrupted views from elevated areas around Cringila and Berkeley towards the Precinct and the ocean which captures the region's dramatic and distinctive industrial character and the culture and history of the place.

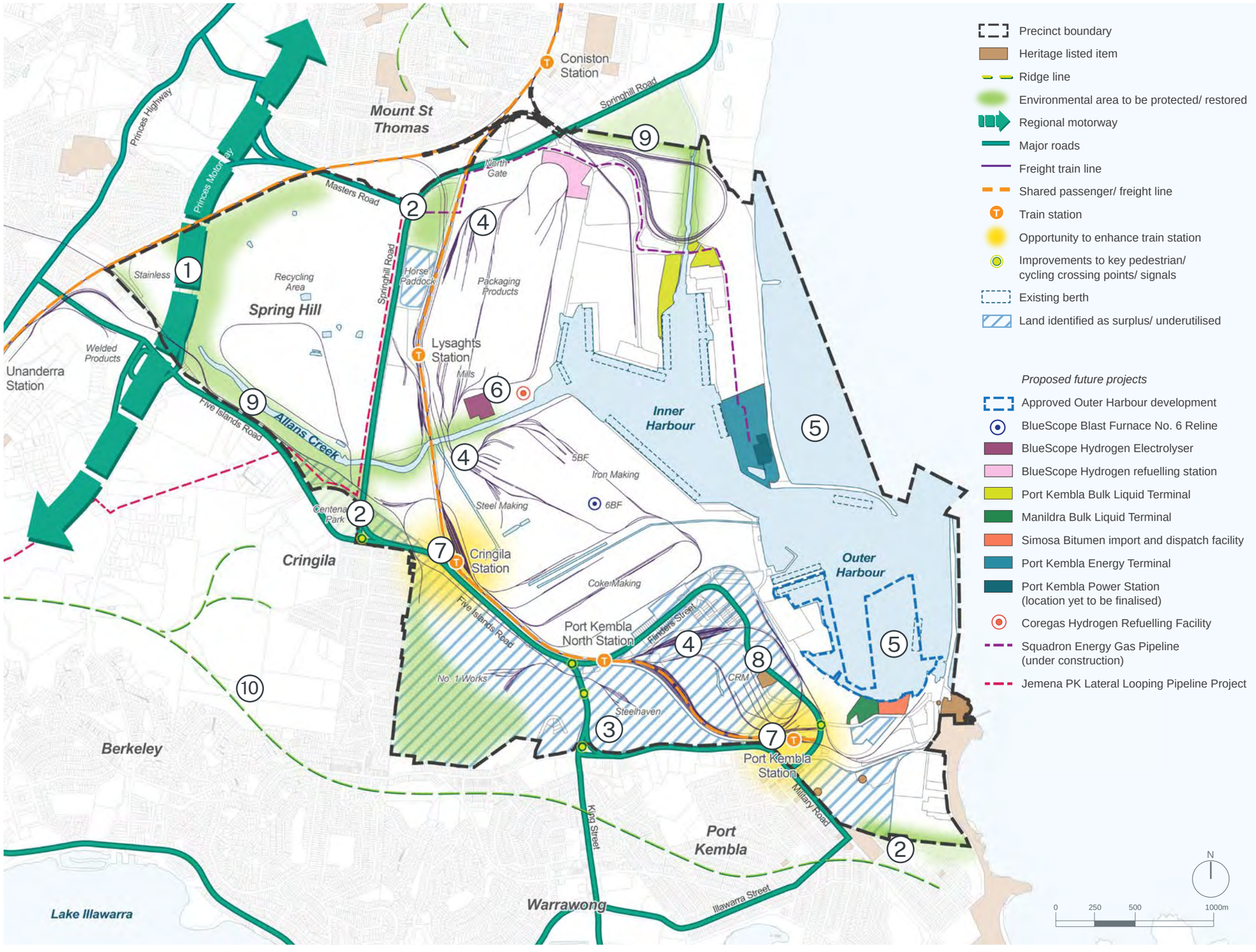


Figure 16 Port Kembla Precinct opportunities, strengths and proposed projects

03

Structure Plan

This section presents the overarching Vision and Principles established to guide the future planning for the Precinct. A consolidated Structure Plan diagram is provided and is accompanied by separate Movement, Environmental and Sub-Precinct Plans to help illustrate the future direction for the Precinct.

Vision

"Port Kembla is the key port of growth for the State, delivering significant economic and social benefits for the Illawarra and NSW.

The Precinct collaboratively aligns the interests of diverse stakeholders to effectively build capacity and capability to strengthen core industrial uses, maximise an international trade gateway, embrace a renewable energy future. It will also support emerging manufacturing and innovative industries, and other compatible employment generating uses.

It safeguards opportunities for the future of the Port and the Precinct by providing efficient infrastructure and networks, and managing land-use, environmental and industry conflicts."

3-2 Design & Planning Principles

Five design and planning principles have been developed to inform and guide future planning for the Precinct and to achieve the desired Vision. These are described in more detail below.

01 Identity & Future Opportunities

02 Industry & Innovation

03 Infrastructure & Networks

04 Integration, Conflicts & Buffers

05 Sustainability & Resilience

01

To connect to Country, identity, character and culture of the place while safeguarding opportunities for the future of the Precinct.

Identity & Future Opportunities

Embed Connecting to Country as a key principle and integrate the First Nations organisations and communities into the decision making process

Allow for the integration of potential future uses (NSW container terminal, Defence, Hydrogen production, offshore wind etc.) with current Port uses

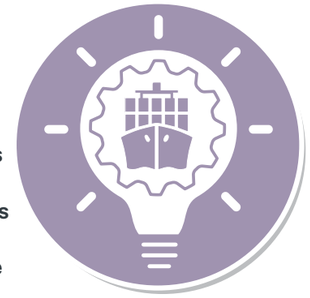
Protect well located and serviced industrial lands to accommodate future growth and demands

Identify and encourage short term uses that capitalise on the well located industrial land without compromising future opportunities

Protect freight and transport corridors (including those connecting to Western Sydney) from encroachment and incompatible adjacent development

Celebrate the visual, cultural and landscape qualities of the Precinct, both viewed internally and as viewed from surrounding areas

02



To strengthen core industrial uses and introduce new compatible, innovative and emerging industries that create local and regional employment, while facilitating the growth of international trade.

Industry & Innovation

Introduce new uses that support and supplement existing core Port and industrial uses and create and diversify local and regional employment and deliver significant economic benefits to the community

Collaborate with industry, education, government and community to target investment and diversification in a coordinated manner

Encourage industries that deliver significant economic benefits to the public and local community, including Traditional Owners, without competing with established centres

Maximise market-driven opportunities by embracing innovation, adopting emerging technologies and capitalising on low-carbon manufacturing

03

To provide efficient infrastructure through technology, resilient supply chain networks and effective transport connectivity.

Infrastructure & Networks

- Utilise technology to improve the resilience, capability and efficiency of Port operations and associated supply chains
- Enhance the efficiency and effectiveness of Port Kembla as a multi-modal freight interchange
- Encourage mode shift to active and public transport use through new and upgraded pedestrian and cycle links and public transport infrastructure through improved connections with the surrounding urban areas
- Encourage sustainable infrastructure (e.g. EV charging stations, hydrogen refuelling stations, etc.) that supports both road and rail fleet transition to zero emissions technology
- Create effective processes to manage relationships between competing and diverse stakeholders
- Explore opportunities to improve and expand active transport connections between the Precinct and surrounding areas and destinations such as Port Kembla Town Centre, Cringila, MM Beach and key railway stations

04

To manage land-use, environmental and industry conflicts and natural hazards (particularly flood and coastal hazards) with effective planning, buffers and design.

Integration, Conflicts & Buffers

- Identify areas within the Precinct to allow co-location of complementary uses and to maximise productivity and efficiency of land and facilities
- Create opportunities for high environmental value land to enhance existing biodiversity corridors and provide visual and physical buffers from sensitive uses
- Ensure the location and scale of built form considers the urban environment, particularly adjoining residential areas
- Encourage the use of effective on-site management practices, and control and manage off-site impacts
- Minimise environmental impacts on sites with environmental significance and on marine environments adjacent to the Precinct
- Ensure new uses inside the Precinct manage land use conflicts in their immediate context
- Incorporate buffer measures (e.g. land use transition zones, setbacks, landscaping, engineering/design solutions) into the planning and design of new uses to reduce potential for land use conflicts

05

To embrace a Renewable Energy Zone (REZ), support efficient resource management, low-carbon manufacturing and circular economy practices.

Sustainability & Resilience

- Provide infrastructure to support renewable energy production such as Hydrogen and offshore wind farms
- Support low-carbon manufacturing including a plan of action for green steel
- Identify opportunities to leverage circular economy systems
- Incorporate ecologically sustainable development (ESD) at the heart of decision making
- Restore, enhance and protect green spaces and waterways e.g. measures to enhance aquatic and key fish habitat values in waterways
- All development is to consider adaptation and mitigation measures to ensure long term resilience
- Exposure to Urban Hazards is reduced to support healthy, sustainable, resilient and liveable places

3-3 Movement Network

Freight Priority Network

The key road network connecting the Precinct with the Princes Motorway should effectively support the movement of Oversize and/or Overmass (OSOM) and High Productivity Vehicles (HPVs). NSW Ports Master Plan identifies that upgrades to the intersections of Springhill and Masters Road and Tom Thumb and Springhill Road may be required to support future growth (subject to approval).

Shipping Channel

This shipping channel, between the breakwater walls, provides the point of access for all shipping in the Port.

Importance of Cringila and Port Kembla Stations

Cringila and Port Kembla Train Stations will play an important role in supporting the precinct in achieving its vision. This may include providing additional services to support surrounding residential and employment catchments as part of broader efforts to reduce private vehicle use on key port access roads.

Alongside this, augmentation to key infrastructure (including train stations), subject to investigation, may be required to improve travel choices, support future communities and better respond to the form and function of surrounding local centres. For example, the relationship between Port Kembla Station and Port Kembla Town Centre may require stronger connections and improved access to make it more functional and accessible to the community as the precinct develops.

Potential Public Transport Node and Interchange

A vital component for the upgraded train stations is connections to associated public and active transport linkages. The provision of space for an interchange will increase the use of these stations by local residents, visitors and workers and improved connections between the Port Kembla Train Station and Town Centre would make both more functional and accessible.

Freight Rail Network

The existing freight network provides an extensive web of tracks across the Precinct. Some of these lines are active, whilst some are dormant, but all provide the opportunity for rail infrastructure access to sites in the Precinct.

Desired Pedestrian/ Cycle Connections

Current pedestrian and cycle routes are limited across the Precinct. To encourage a shift to active transport, expanded, improved and safe pedestrian and cycle connections to transport interchanges and to key locations such as town centres and MM Beach is desirable. Missing crossing points/ signals at key intersections in the Precinct should also be addressed, to reduce barriers to cycling (see Figure 17).

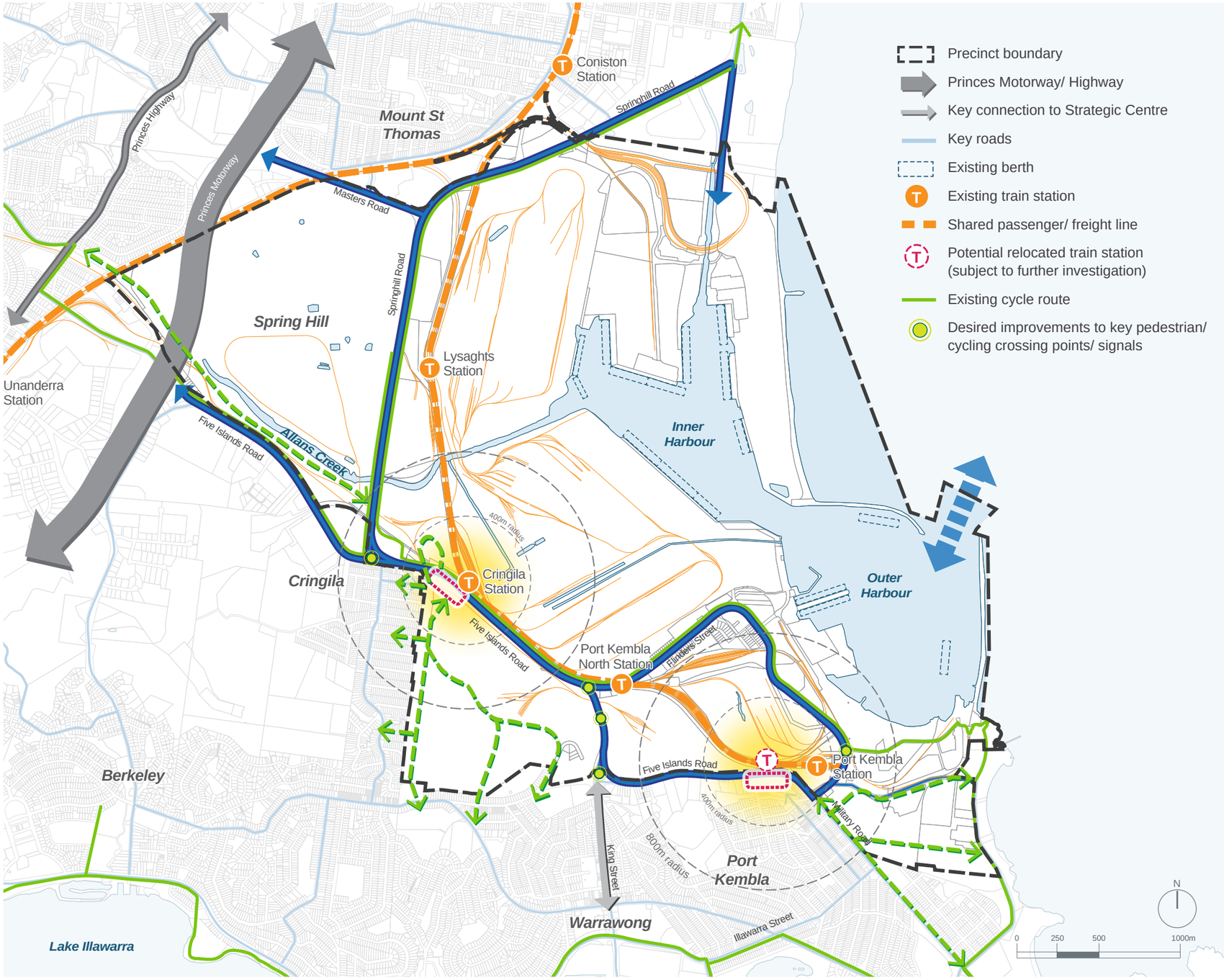


Figure 17 Transport and Movement Plan

3-4 Environment, Heritage and Buffers

Environmental Protection and Opportunity for Improvements

Green space across the Precinct (and catchment), particularly in the vicinity of creek lines, provide opportunities for improvements to flooding, sedimentation ecology and amenity, as evidenced in Greenhouse Park. Some areas have also been identified as potential locations for endangered species, requiring additional environmental protection.

Existing Landscape Buffer to be Protected/ Strengthened

The existing landscape buffers identified, usually in the form of large mature trees (often figs) are to be protected and improved. Additional complementary planting is to be considered. These plantings form a green buffer to the visual, noise and pollution impacts of the industrial usage within the Precinct.

Sensitive Interface Buffer

The identified location of desired or expanded future landscape and built form buffers relate to areas where additional protection may be required to minimise any potential impacts where Port and heavy industrial activities adjoin areas with potential residential uses.

Heritage Listed Sites

The identified sites are items of European heritage value, which are to be preserved and protected. Heritage interpretation and adaptive re-use may be appropriate for the majority of these sites, and would be subject to an assessment on merit. Items of Aboriginal heritage value have not been identified within the Precinct, but it is recommended that a study be conducted to determine if any items do exist that need to be preserved and protected.

Key Views to Precinct

The distinct landform allows views into and across the Precinct, towards the ocean, from a range of vantage points in the surrounding area. These views capture the region's dramatic and distinctive industrial character but make it difficult to minimise air, light and noise pollution created by the activity and movement occurring day and night.

Figure 18 Environment, Heritage and Buffers Plan

3-5 Sub-Precincts and Land Use

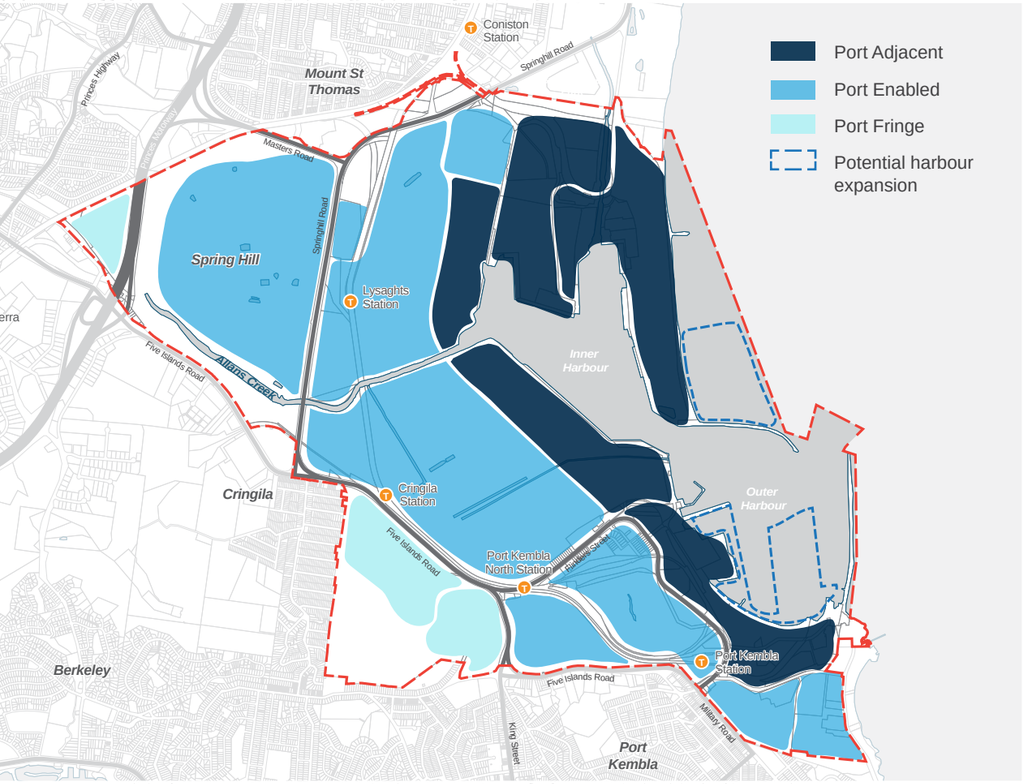


Figure 19 Sub-Precinct categories

To assist in understanding how areas within the State and Regionally Significant Precinct contribute to the functioning of the Port and the Precinct's role as a Regionally Significant Employment Precinct, areas have been categorised into sub-precincts.

These sub-precincts categorise land with similar characteristics into one of three categories:

- Port Adjacent
- Port Enabled
- Port Fringe

Port Adjacent

Port Adjacent land has a direct interface with the Inner or Outer Harbour. It adjoins berths for the loading and unloading of cargo and contains large areas of hardstand, silos or other facilities that allow for the efficient core operations of the port.

All areas of the land zoned SP1 have been identified as Port Adjacent. Areas zoned IN3 Heavy Industrial that directly adjoin the Inner Harbour have also been included. For simplification, areas within the SP1 zoned area that are harbour or facilities that support the port such as breakwaters, jettys and pontoons have been excluded from the sub-precinct.

The area of land identified as Port Adjacent may increase with new development into the harbour such as the construction of the container wharf in the Outer Harbour.

Port Enabled

Port Enabled land adjoins Port Adjacent land and benefits from the road, rail and water based access and infrastructure provided to the Port. The majority of this land is located between Five Islands Road, Military Road and Springhill Road and the Inner and Outer Harbours. It includes land known as Steelhaven, CRM, the former Copper Site and Spring Hill.

All land in this sub-precinct is zoned IN3 Heavy Industrial, and which permits a range of uses including heavy industries (including hazardous and offensive industries), freight transport facilities, warehouse or distribution centres, food and drink premises and waste or resource management facilities.

Some areas in this sub-precinct are identified as currently underutilised. Areas close to the planned expansion of port facilities in the Outer Harbour are expected to become more critical in the future to maximise the capacity and effectiveness of the port. As the timing of this expansion is unknown temporary, relocatable and/or low investment uses may be desirable to maximise the employment generating potential of these areas in the short term. These uses should only be permitted if they will not significantly detract from the operation of existing or proposed industries.

Port Fringe

Port Fringe land is located on the edges of the Precinct and at a distance from the port and Port Adjacent land and separated from Port Enabled land by major roads. The land is zoned IN3 Heavy Industrial and is generally located at interface buffer areas adjoining residential areas which are sensitive to the potential impacts of adjacent heavy industry

There is an an opportunity for this land to function as a buffer and provide an improved interface to surrounding sensitive uses, with potential consideration of advanced/innovative manufacturing or creative industries, high technology industries, industrial research and training facilities or other compatible employment generating uses.

3-5 Sub-Precincts and Land Use

Port Adjacent

A Sub-Precinct A

Northern area of the Precinct between Wollongong City Beach and the Inner Harbour. Berths 101, 102, 103 and 104 predominantly servicing Dry Bulk and Bulk Liquids. Includes the site of the Port Kembla Energy Terminal.

B Sub-Precinct B

Located to the north of the Inner Harbour. Berths 105E, 105, 106 and 107 predominantly servicing Vehicles and Break Bulk.

C Sub-Precinct C

Land to the west of the Inner Harbour and north of Allans Creek (Western Basin) Berths 109 and 110, predominantly servicing vehicles.

D Sub-Precinct D

Land to the south of the Inner Harbour and south of Allans Creek. Berths 111, 112 and 113 predominantly servicing Coal.

E Sub-Precinct E

Land Servicing the Outer Harbour and future Container Terminal. Berths 202, 203, 204,and 205 and 113 servicing Dry Bulk, Motor Vehicles and General Cargo.

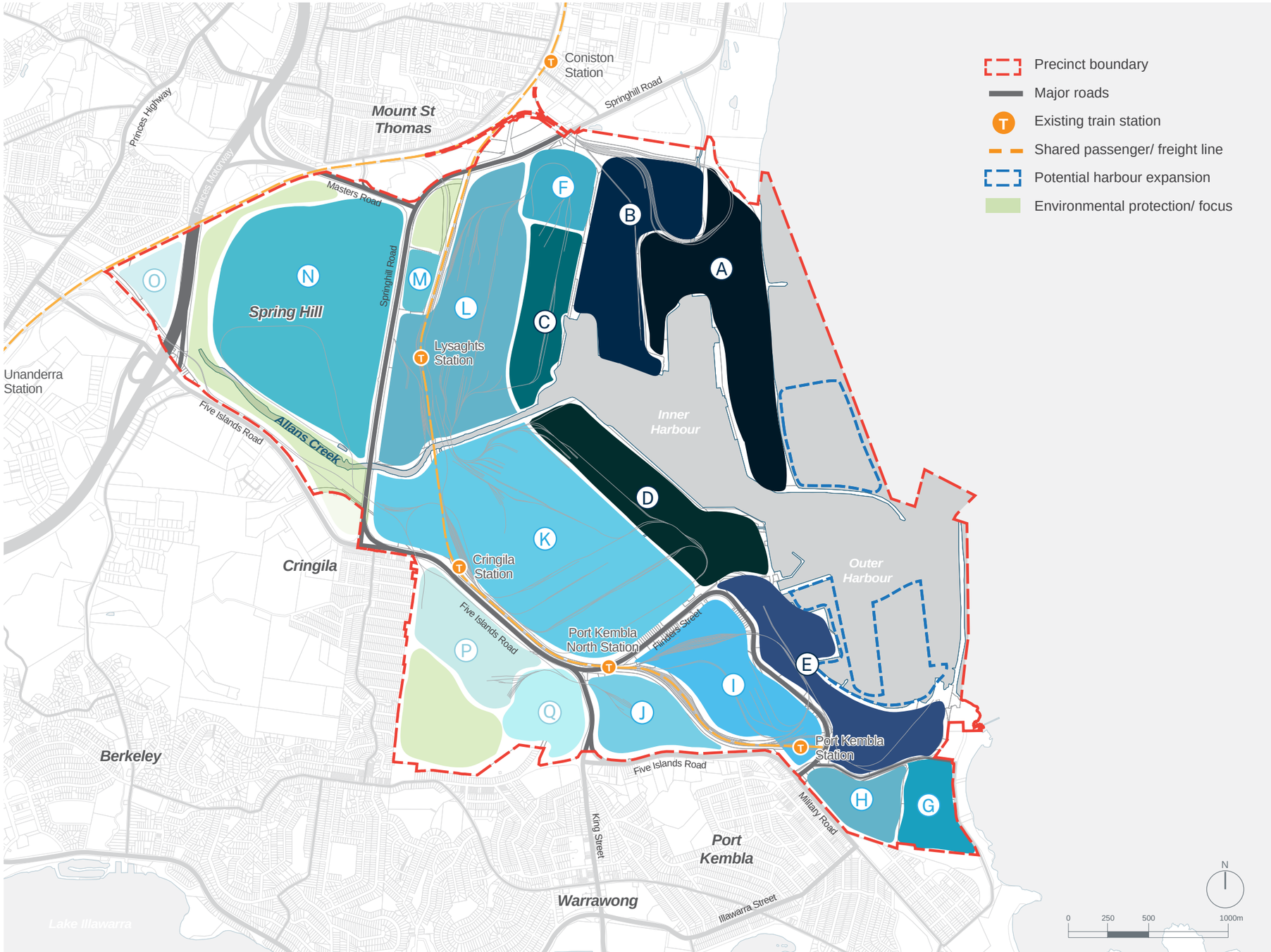


Figure 20 Sub-Precincts Plan - Port Adjacent

3-5 Sub-Precincts and Land Use

Port Enabled

F Sub-Precinct F

Located to the south of Tom Thumb Road. Potential location for Green Energy Production and has been identified by BlueScope as the site for hydrogen refuelling operations.

G Sub-Precinct G

Located to the west of MM Beach and accessed off Gloucester and Darcy Road. Providing Warehousing, Logistic and Manufacturing.

H Sub-Precinct H

Located to the south of Darcy Road and east of Military Road. Former copper smelter site, currently vacant.

I Sub-Precinct I

Located to the north of Port Kembla Station, west of Old Port Road and south of Flinders Street. It is also known as the CRM site.

J Sub-Precinct J

Located to the north and east of Five Islands Road. It is also known as Steelhaven.

K Sub-Precinct K

North of Five Islands Road. The location of Coal and Coke handling, Cokemaking, Ironmaking, Slabmaking and the BlueScope Mellor Centre.

L Sub-Precinct L

East of Springhill Road includes BlueScope Steel Springhill Works, Coregas production and logistics, Hot Strip Mill and Plate Mill, Visitors Centre & one of the main entrances.

M Sub-Precinct M

Vacant land known as the Horse Paddock to the east of Springhill Road.

N Sub-Precinct N

Land between the Princes Motorway and Springhill Road including BlueScope's Alliance and Recycling Area which processes by-products by BSL's contractors.

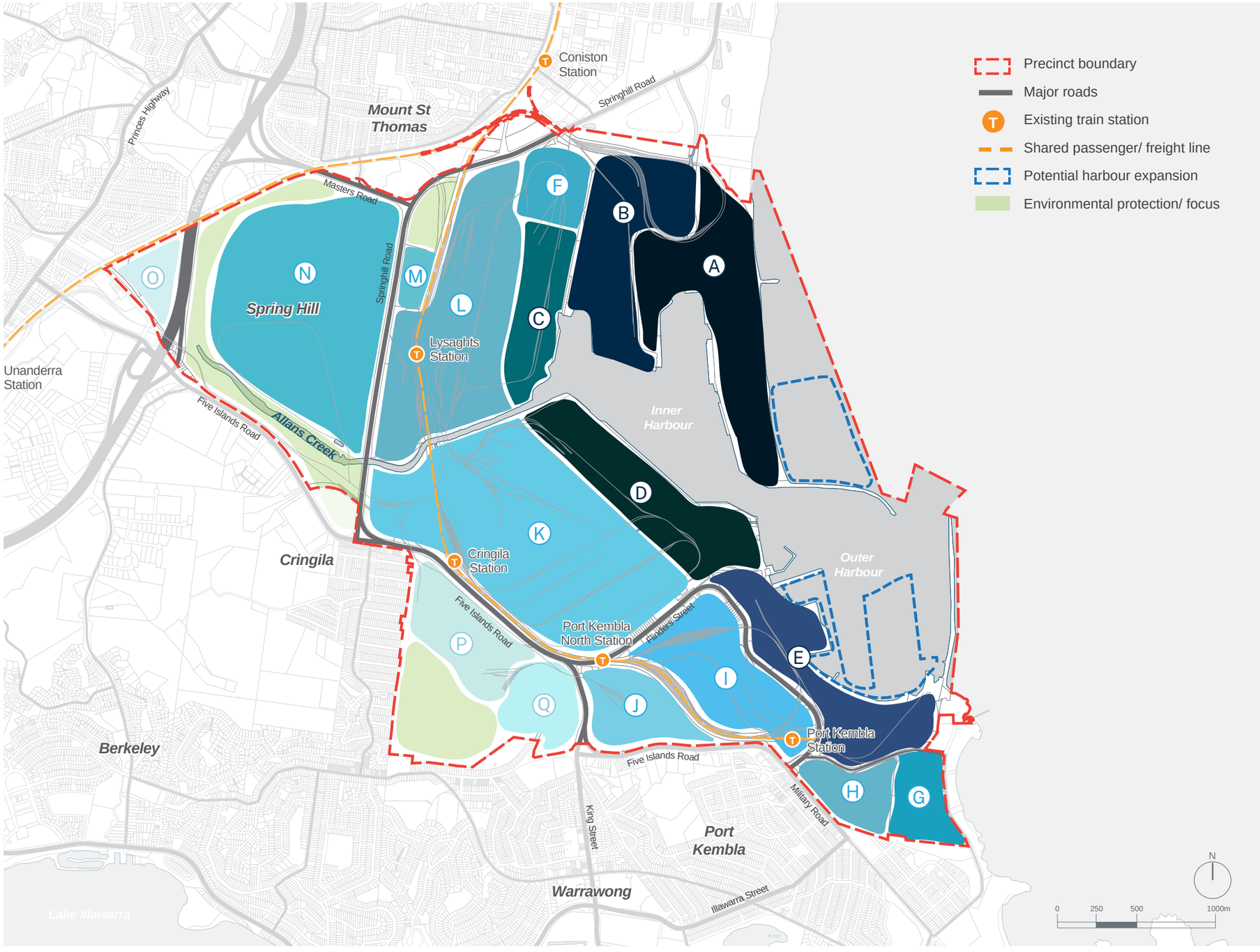


Figure 21 Sub-Precincts Plan - Port Enabled

3-5 Sub-Precincts and Land Use

Port Fringe

Sub-Precinct O

Land to the west of the Princes Motorway and north of Allans Creek. The site is flood affected and has been as being identified as a location for tube manufacturing.

Sub-Precinct P

Located to the south west of Five Islands Road and south of Cringilla Station. The site is also known as the No1 Works.

Sub-Precinct Q

Administration and engineering offices and buildings used by community groups located to the west of Five Islands Road in a landscape setting and accessed off Flagstaff Road.

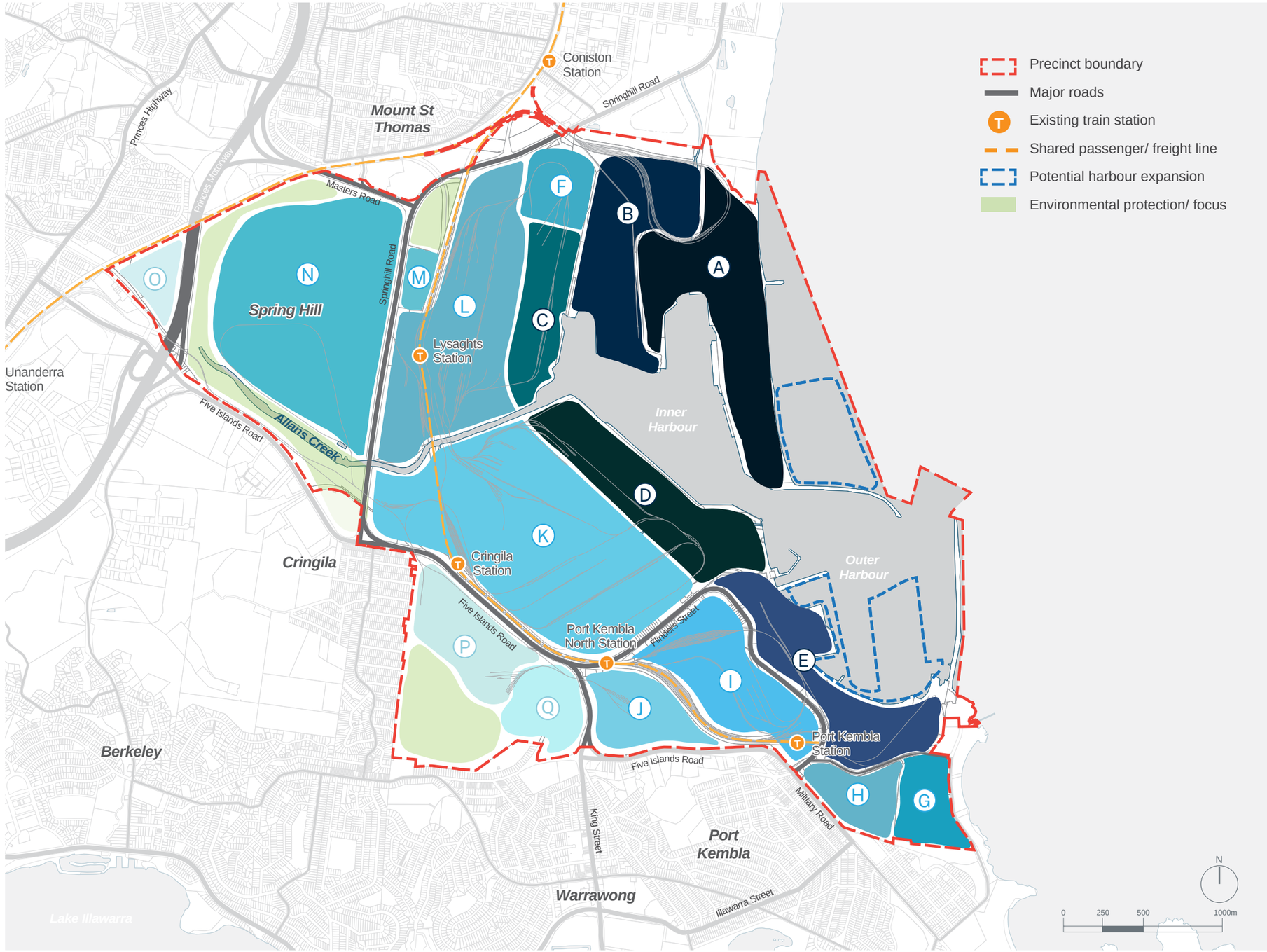


Figure 22 Sub-Precincts Plan - Port Fringe

3-6 Structure Plan Diagram

Importance of Cringila and Port Kembla Stations

Cringila and Port Kembla Train Stations will play an important role in supporting the precinct in achieving its vision. This may include providing additional services to support surrounding residential and employment catchments as part of broader efforts to reduce private vehicle use on key port access roads.

Alongside this, augmentation to key infrastructure (including train stations), subject to investigation, may be required to improve travel choices, support future communities and better respond to the form and function of surrounding local centres. For example, the relationship between Port Kembla Station and Port Kembla Town Centre may require stronger connections and improved access to make it more functional and accessible to the community as the precinct develops.

Potential Public Transport Node and Interchange

A vital component for the upgraded train stations is connections to associated public and active transport linkages. The provision of space for an interchange will increase the use of these stations by local residents, visitors and workers and improved connections between the Port Kembla Train Station and Town Centre would make both more functional and accessible.

Sub-Precincts

Port Adjacent - land that directly interfaces with the Port.

Port Enabled - land that benefits from the infrastructure and access provided to the Port.

Port Fringe - land that edges the Precinct and provides a buffer to surrounding sensitive interfaces.

Interface Buffer

The identified location of desired or expanded future landscape and built form buffers relate to areas where additional protection may be required to minimise any potential impacts where Port and heavy industrial activities adjoin areas with potential residential uses.

Environmental Protection and Opportunity for Improvements

Existing and proposed green space across the Precinct (and catchment), particularly in the vicinity of creek lines, provide opportunities for improvements to flooding, sedimentation ecology and amenity, as evidenced in Greenhouse Park. Some areas have also been identified as potential locations for endangered species, requiring additional environmental protection.

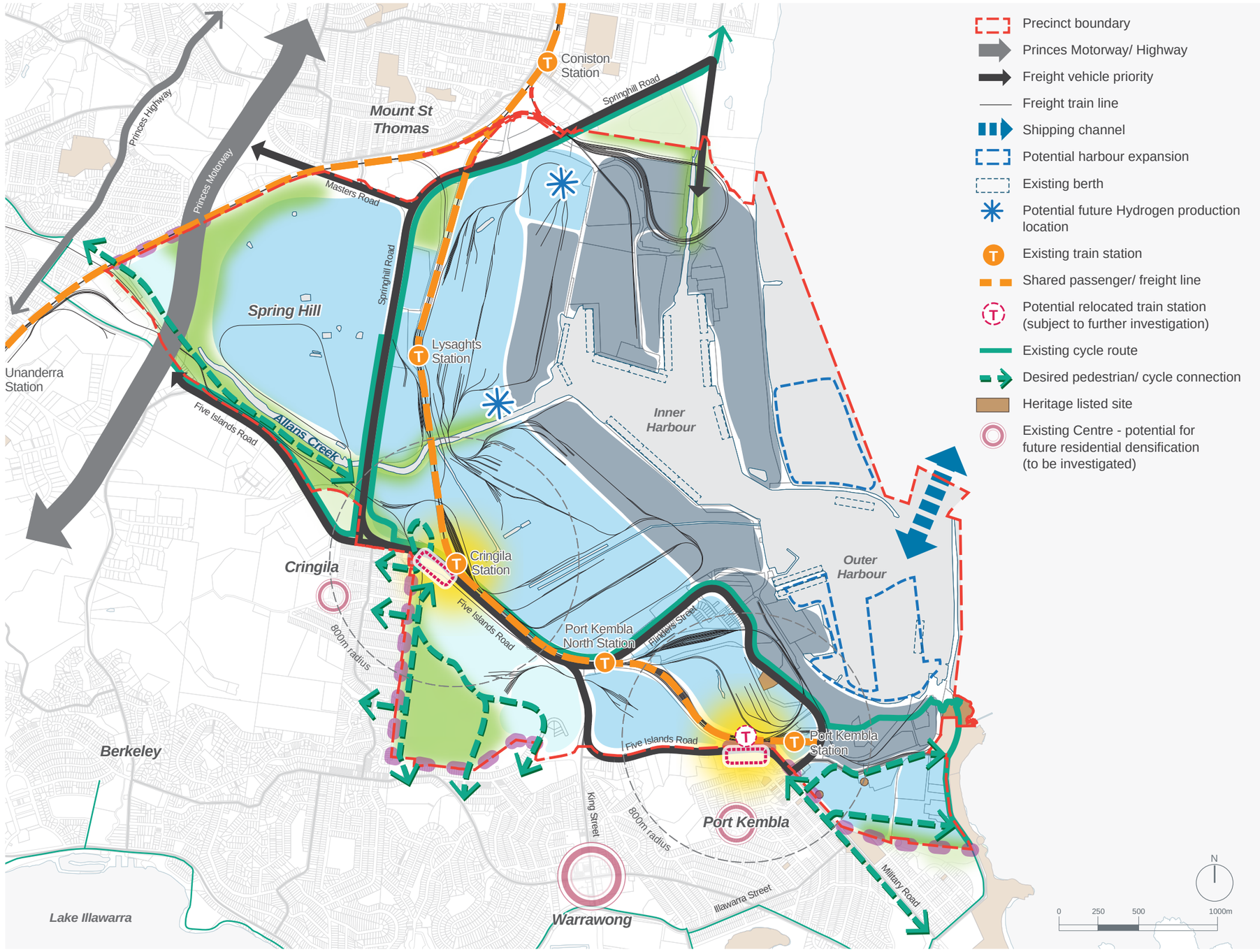


Figure 23 Port Kembla Structure Plan

03 Structure Plan

3-7 Delivery and Potential Futures

Figure 24 Potential Outer Harbour Development Layouts and Artist Impression (Note: Options are conceptual only and will be subject to further design development and subject to approval). *Source: NSW Ports 2063 Masterplan (2023)*

The existing uses across the Precinct are many and varied, and the potential future uses are equally as varied.

There are a number of proposals currently in the planning phase, relating to the expansion of existing uses, or the provision of new uses and new technologies, such as those relating to the manufacture and use of Hydrogen as a fuel source.

Some potential ideas around the future uses of the Precinct will be put forward by BlueScope as it embarks on an extensive Master Planning process relating to lands it has identified as surplus to its core business requirements, but this is still a work in progress and not expected to be completed until late 2023. Similarly, NSW Ports have recently released a Master Plan which outlines the future of their land and operations in Port Kembla.

The Outer Harbour Development is a long term proposed use, which will have significant impacts due to its requirement for supporting infrastructure and Port Adjacent land. While one potential layout of the Outer Harbour Development has undergone an approval process, additional layout options may be considered in the future as shown in the recent NSW Ports Master Plan document (see Figure 24) and subject to future planning approval. A potential use of the proposed Outer Harbour Development could include infrastructure supporting construction and delivery of offshore wind farms as well as transitioning to a container terminal with deep water berths and on-dock rail as Port Botany nears capacity (beyond 2045).

An array of theoretical uses are also proposed for the Precinct and the impact of these ideas is less clear and their spatial requirements are not as resolved.

One theoretical use is the potential for a Defence Base, in support of Australia's Nuclear Submarine Fleet, which would likely require a potential harbour expansion/augmentation. The impact of such a facility is of such magnitude that it has been exempted from this report as it would fundamentally change the scope and context of the Precinct.

The NSW Ports 2063 Master Plan acknowledges that Port Kembla has been identified as the potential location for a future east-coast naval defence base and it states that "given the significance of the commercial port in supporting the future trade needs and economic growth of NSW, and the scarcity of port land, any defence facility must not compromise capacity or operational efficiency of the commercial port and therefore must not be located within the current or future commercial port footprint".

The Federal Government will make the final decision on the location of the East Coast (Defence) Base to house Australia's proposed fleet of nuclear powered submarines which is anticipated to have significant land use planning implications for the Port and would therefore be a catalyst for review of the Structure Plan. The Government has announced that the decision on the location for this facility would not be made until late in this decade.

The East Coast (Defence) Base is anticipated to require considerable land holdings if it is located at Port Kembla, with capital investment costs of potentially up to $10 billion. The scale of the Base, along with direct and indirect support services is likely to have significant implications for the layout of the Port, with these requiring further consideration, should a decision be made to locate the Base at Port Kembla.

It is acknowledged that the Structure Plan is a 'live' document which reflects the current evidence base and existing context and planning. It is intended to inform future development and master planning of the Precinct by providing an overarching 'skeleton', vision, guiding principles and spatial framework to guide development over the next 20+ years.

It is anticipated that mechanisms for the implementation and/or enforcement of the Plan will be investigated when the decision about the location of the East Coast Defence Base and other Master Plans such as BlueScope's are released. The Plan will be reviewed as needed, and in response to projects that may fundamentally change the scope and context of the Precinct, or where there are proposed significant deviations from the assumptions upon which the Plan was developed.

3-7 Delivery and Potential Futures

The adjoining table outlines the potential and theoretical uses that were identified at the time of this report, but there could be many more that are under development that will require land within the Port Kembla Precinct, as new technologies and processes are developed. Other theoretical uses (e.g. cruise ship terminal) would be subject to market demand and required infrastructure upgrades.

Short Term:	**< 10 years**
Medium Term:	**10 – 20 years**
Long Term:	**20+ years**

Proposed Uses – currently approved or in approval process	Time Frame
BlueScope 'HyKembla' Hydrogen Facility	**Short Term**
Squadron Energy Port Kembla Energy Terminal	
Manildra Bulk Liquids Facility (Ethanol export)	
Simosa Bitumen Dispatch and Import Facility	
BlueScope Blast Furnace No.6 Reline	
BlueScope Commodity and Logistics Project (upgrade of Berth 111)	
Jemena Port Kembla Lateral Looping Pipeline (connecting to Eastern Gas Pipeline)	
Coregas Hydrogen Refuelling Facility	**Short Term (Assumed)**
Port Kembla Bulk Liquids Terminal	**Short to Medium Term**
Squadron Energy Port Kembla Dual Fuel Power Station	**Medium to Long Term**
NSW Ports Outer Harbour (Container Terminal) Development	**Long Term (Approved)**

Theoretical Uses	Time Frame
BlueScope Master Plan surplus land uses	**Short to Long Term**
Hydrogen Hubs – other than HyKembla and Coregas • Supporting infrastructure (e.g. water, storage facilities)	**Short to Medium Term (Assumed)**
Defence Base • *Note: not being considered in this study as inclusion will result in fundamental changes to the situation.*	**Medium Term**
Wind Turbine manufacturing	**Medium to Long Term**
Off-shore Wind Farms • Oceanex • Blue Float Energy/ Energy Estate • Green Float Energy • Supporting renewable energy transmission infrastructure, such as step-up/step-down substations	**Medium to Long Term**
Outer Harbour wind turbine assembly plant	**Medium to Long Term**
Renewable Energy Zone (REZ) – assorted projects • Port Kembla Power Station – Hydrogen Power • Green Steel manufacturing • Miscellaneous energy storage projects • Energy transmission infrastructure • Off-shore wind farms and transmission components	**Long Term**