Commodity Logistics and Import Project

Scoping Report

BlueScope Steel (AIS) Pty Ltd

3 February 2022

→ The Power of Commitment

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Abbreviations

Term/ acronym	Definition
ABS	Australian Bureau of Statistics
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
ANZECC	Australian and New Zealand Environment and Conservation Council
ASS	Acid sulphate soils
BC Act	Biodiversity Conservation Act 2016
BFG	Blast furnace gas
BF-BOF operating model	Blast Furnace ironmaking and Basic Oxygen Furnace steelmaking
Biosecurity Act	Biosecurity Act 2015
BlueScope	BlueScope Steel (AIS) Pty Ltd
BRMZ	BlueScope Renewable Manufacturing Zone
BoM	Bureau of Meteorology
BOS	Basic oxygen steelmaking
BSL	BlueScope Steel Limited
^{o}C	Degrees Celsius
CBD	Central Business District
CLM Act	Contaminated Land Management Act 1997
CO	Carbon monoxide
CO_2	Carbon dioxide
Coastal Management SEPP	State Environmental Planning Policy (Coastal Management) 2018
CSSI	Critical State Significant Infrastructure
DAWE	Department of Agriculture, Water and Environment
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change and Water
DPIE	Department of Planning, Industry and Environment
EEC	Endangered ecological community
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental planning instrument
EPL	Environment Protection Licence
GDE	Groundwater Dependent Ecosystems
GHD	GHD Pty Ltd
GHG	Greenhouse Gas
ha	Hectares
Heritage Act	Heritage Act 1977

Term/ acronym	Definition
km	Kilometres
km/h	Kilometres per hour
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
LNG	Liquified Natural Gas
m	metres
m3	cubic metres
ML	megalitres
MNES	Matters of National Environmental Significance
mm	millimetres
Mt	megatonnes
Mtpa	megatonnes per annum
NGERS	National Greenhouse and Energy Reporting Scheme
NPW Act	National Parks and Wildlife Act 1974
NSW	New South Wales
OUL	Ore unloader
PKCT	Port Kembla Coal Terminal
PKSW	Port Kembla Steel Works
PMST	Protected Matters Search Tool
POEO Act	Protection of the Environment Operations Act 1997
Reline	Major repair and maintenance of a blast furnace, involving the replacement of internal linings including replacement of some or all of the refractory, cooling elements and shell plate
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SEPP 33	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
SEPP 55	State Environmental Planning Policy No. 55 – Remediation of Land
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
SSI	State Significant Infrastructure
SU	Ship unloader
t	Tonnes
TfNSW	Transport for NSW
Three Ports SEPP	State Environmental Planning Policy (Three Ports) 2013
T&I SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021 (draft)
5BF	No. 5 Blast Furnace
6BF	No. 6 Blast Furnace

Executive summary

Introduction

BlueScope Steel (AIS) Pty Ltd (BlueScope) is the owner and operator of the Port Kembla Steel Works (PKSW), the largest steel manufacturing plant in Australia. To maintain its operations, PKSW requires a continuous supply of raw materials, including iron ore, metallurgical coal, limestone, dolomite, scrap steel, and other commodities.[1]These raw materials enter the site via road, rail and sea, including via five shipping berths within Port Kembla. Typically, local commodity supplies enter via road or rail, with supplies of materials from further afield entering via sea.

Recent and emerging disruptions to key commodity supply chains have highlighted the importance of the upgrade to three of the five berths operated by BlueScope, which is proposed as a key component of the No.6 Blast Furnace Reline Project. In particular, without the proposed upgrade, the berths will not be able to accommodate the increase in capacity which BlueScope will require to import the additional quantities of premium hard coking coal needed to replace 3-seam coal from South32's Dendrobium mine, located in the Illawarra and currently transported by rail, once local supply ceases as early as November 2024. The current ship unloading infrastructure located at the berths is approximately 50 years old. By investing in state-of-the-art commodity handling facilities on these berths, BlueScope is ensuring its blast furnace operations will have security of raw material supply now and well into the future.

Background

BlueScope is one of Australia's leading manufacturers and is a global leader in finished and semi-finished steel products. Steelmaking operations are undertaken at the PKSW, within an industrial site of approximately 750 hectares located in the Wollongong Local Government Area. PKSW is the only plant in Australia manufacturing upstream flat iron and steel products, supplying the essential feedstock that keeps all of the other domestic manufacturing facilities owned by BlueScope's parent entity, BlueScope Steel Limited (BSL), operational. PKSW, and the adjacent Springhill Works, owned and operated by BSL, employ approximately 4,500 direct employees and on-site contractors, and generate about 10,000 jobs in total, including indirectly in supplier and customer businesses. Together with the Springhill Works, PKSW makes a significant economic contribution to the Illawarra region, generating $6.5 billion or 24 per cent of the region's output per annum. PKSW is also an important national economic asset, providing sovereign manufacturing capability for a range of important construction, infrastructure, manufacturing and defence applications.

The reline of No. 6 Blast Furnace (6BF) and of associated raw material import capabilities at PKSW have been declared to be Critical State Significant Infrastructure (CSSI), initially on 3 May 2021, and then by amendment on 25 January 2022. Works associated with the reline of the physical Blast Furnace are the subject of a separate environmental impact assessment. The upgrade of the raw material import capabilities are the subject of this Scoping Report. In this report, the upgrade of the raw material import capabilities, known as the Commodity Logistics and Import Project or "CLIP", is referred to as "the project", although it in fact forms part of the larger CSSI project that encompasses both the reline of 6BF and CLIP.

Project description

BlueScope operates five berths at Port Kembla pursuant to leases from the NSW Ports Corporation (NSW Ports). The CLIP proposes to upgrade three of these berths – Berths 111, 112 and 113 (referred to as "the Berths" in this Scoping Report) which are used for the import of iron ore, metallurgical coal, limestone, dolomite, scrap steel and other minor commodities. The existing ship unloading infrastructure located at the Berths cannot accommodate the significant increase in throughput that will be required to support ongoing steelmaking operations at PKSW following cessation of 3-seam coal supply from South32 as early as November 2024. Based on information currently available to BlueScope, supply of raw materials necessary for 6BF (once operational and subject to approval from the Minister) is dependent upon the upgrade to the Berths' capability which is proposed by the CLIP project.

[1] BlueScope is investing significant resources into investigation of low greenhouse gas emission steelmaking technologies which, if adopted at PKSW, may result in different raw material mix configuration. However, import capacity via the berths will remain essential to PKSW operations.

The upgrade proposed by CLIP involves the following key elements:

– Installation of a new ship unloader.
– Relocation of and modifications to existing unloaders.
– Modifications to existing and installation of new conveyors for material handling.
– New truck loading & washing facilities.
– Relocation of the coke loader and coke transfer house.
– Modifications to berth infrastructure, including a short extension of existing machine rails from Berth 112 to 113.

Ship Unloader (SU)

A ship unloader (SU) equipped with a bucket-elevator or scissor grab unloading device that is suspended from a boom will be installed at Berth 111. The preferred proposal includes installing a new SU that will allow for the handling of both coal and iron ore and will be capable of achieving a discharge rate of up to 50,000 tonnes per day, depending in the material being unloaded. The design of the SU will reduce unloading time, increasing the throughput of the berth.

Additional conveying infrastructure

Currently, Berth 111 is primarily used for unloading iron ore with several conveying systems in place for clearing the discharged material to the relevant stockpiles. The current facilities do not support unloading of other materials. A key component to improving the capacity of berths leased by BlueScope is to allow for other commodities to be discharged on Berth 111. Where there is the ability to unload multiple materials on a specific berth, it is essential that coal and iron ore materials are not mixed with or contaminated by each other. To facilitate the discharge of multiple materials, construction of a number of new conveyors is proposed to duplicate the existing iron ore materials handling system in the conveying chain from Berth 111. The new conveyors will primarily transport coal from the berth to new truck loading facilities and onto the relevant storage areas, as the iron ore conveyors will remain in operation to ensure no cross-contamination.

Truck loading facilities

To facilitate the transport of coal to stockpile areas during the unloading process, a new truck loading bin facility will be installed in an existing cleared and vacant area. The bin will be sized to store approximately 1,000 tonnes of coal and will allow trucks to be filled from the bin directly. This process will reduce material handling and facilitate the required rate of coal loading from the conveyor into trucks. A new truck wash facility is also proposed.

Relocation of existing infrastructure

The installation of the SU on Berth 111 will require the No. 3 Ore Unloader (3OUL) to be relocated for primary use at Berth 112. The relocated 3OUL will still be able to operate at Berth 111 if required, providing redundancy in the event of an outage of the proposed SU.

The project will also require the relocation of the coke loader and coke transfer house, modifications to the existing conveyors and installation of new conveyors for the coke loading sequence.

Machine rail track extension

The project also includes extending the existing rails on Berth 112 to Berth 113 by 250 metres to facilitate unloader operations across all three Berths. This will allow the No.2 Ore Unloader and the Coke Loader to operate on both Berths 112 or 113, providing greater operating flexibility across the four unloading machines (Coke Loader, 2OUL, 3OUL and the proposed 4OUL) and the three Berths.

Upgrade of the infrastructure outlined above will maximise the use of the deeper berthing box at Berth 111 for more frequent unloading of larger Cape class and fully loaded Panamax sized ships. Due to their larger hold capacity (relative to partially-loaded or shallower draft Panamax or Handysize ships), Cape class and fully-loaded Panamax vessels improve berth utilisation through economies of scale. Once the project is completed, discharge of an additional 1.0 million tonnes per annum (mtpa) will be accommodated through the Berths. It is estimated that the project will result in an additional 15 ships utilising the Berths each year, in addition to the 80 to 100 ships already generated by PKSW operations.

Once the material has been discharged from a ship, it must be removed and cleared from the berth at a rate that is equal to or greater than the rate of discharge of the unloading machines. During ship unloader operations, conveyors or trucks are used to clear materials from the berth depending on the destination stockpile location.

Depending on the material being handled, a maximum clearance rate of around 50,000 tonnes per day (tpd), or 1,000 tonnes per hour (tph), from the berth to temporary storage areas or stockpiles will occur. Where trucks, instead of conveyer belts, are required to be used, this will equate to around 40 truck movements per hour.

Based on the estimated daily and annual volume of materials to be transported, it is expected that a trucking fleet of around 25 trucks will be required to accommodate the additional 1.0 mtpa of imported material.

It is anticipated that berth clearance activities will utilise existing internal roads and transport routes within the PKSW site.

Approvals process and document purpose

The CLIP has been declared to be CSSI under Part 5, Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). An Environmental Impact Statement (EIS) is a requirement of the approval process for CSSI. Before preparing an EIS, terms of reference must be established. In NSW, the terms of reference for an EIS are referred to as the Secretary's Environmental Assessment Requirements (SEARs). In order for a proponent to receive SEARs for a project, an application must be made to the Secretary of the NSW Department of Planning, Industry and Environment (DPIE) (Planning Secretary). The application is to be accompanied by a Scoping Report prepared having regard to any Guidelines approved by the Planning Secretary, namely the DPIE's *State Significant Infrastructure Guidelines – Preparing a Scoping Report* (DPIE 2021a).

This document has been prepared to support BlueScope's request for SEARs for the project. Its purpose is to brief government agencies, the community and other stakeholders about the project, and identify key matters to be addressed in the EIS and the proposed assessment methodologies.

It is expected that DPIE will circulate it to the relevant government agencies and invite them to recommend assessment requirements. The Secretary for DPIE will then issue the SEARs for the project, which will identify the matters that must be addressed in the EIS.

The assessments will be prepared in accordance with relevant guidelines, policies and assessment requirements issued by DPIE, and in consultation with government agencies and other stakeholders. The findings will be documented in the EIS for the project.

The details of the project will continue to be developed and defined during development of the EIS in response to the outcomes of ongoing investigations, studies and stakeholder consultation. The EIS will accompany BlueScope's application for planning approval for the project and will be made publicly available for review and comment.

Matters for consideration in the EIS

Key issues for consideration in the EIS and the proposed level and scope of assessments were identified using the DPIE's Scoping Worksheet. The relevant matters and impacts proposed for detailed consideration in the EIS include air quality; noise and vibration; hazard and risk and water quality. Leading specialists will be commissioned to conduct the required impact assessment studies for the EIS.

Stakeholder engagement

BlueScope's community engagement approach is based on living up to 'Our Bond', which is the company's set of guiding principles that outlines how 'we choose to do what is right' and includes the principle that 'Our local communities are our homes'. BlueScope prides itself on upholding its strong reputation by being a good neighbour and also a good corporate citizen.

BlueScope has developed a community consultation strategy for the project and has already commenced engagement with Government, industry and the community as part of the broader PKSW site communications and in association with the 6BF reline project. The outcomes of consultation will be included in the EIS and relevant technical studies.

Community engagement will be aimed at keeping key stakeholders informed of the assessment process, the project and its anticipated impacts such that concerns can be effectively raised, and considered and addressed through the design process. This is expected to be achieved through a number of different channels including existing forums, key stakeholder briefings, news, and BlueScope's social media and local, public website.

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1. Introduction

1.1 Background

BlueScope Steel (AIS) Pty Ltd (BlueScope) is one of Australia's leading manufacturers and is a global leader in finished and semi-finished steel products. Steelmaking operations are undertaken at the Port Kembla Steelworks (PKSW), within an industrial site of approximately 750 hectares located in the Wollongong Local Government Area.

PKSW is the largest steel production facility in Australia and is the only plant in Australia manufacturing upstream flat iron and steel products, supplying the essential feedstock that keeps all of the other domestic manufacturing facilities owned by BlueScope's parent entity, BlueScope Steel Limited (BSL), operational. PKSW, and the adjacent Springhill Works, owned and operated by BSL, employ approximately 4,500 direct employees and on-site contractors, and generate about 10,000 jobs in total including indirectly in supplier and customer businesses. Together with the Springhill Works, it makes a significant economic contribution to the Illawarra region, generating $6.5 billion or 24 per cent of the region's output per annum. PKSW is also an important national economic asset, providing sovereign manufacturing capability for a range of important construction, infrastructure, manufacturing, energy, and defence applications.

The reline of No.6 Blast Furnace (6BF) and of associated raw material import capabilities at PKSW have been declared to be Critical State Significant Infrastructure (CSSI), initially on 3 May 2021, and then by amendment on 25 January 2022. Works associated with the reline of the physical Blast Furnace are the subject of a separate, but related environmental impact assessment. The upgrade of the raw material import capabilities are the subject of this Scoping Report. In this report, the upgrade of the raw material import capabilities, known as the Commodity Logistics and Import Project or "CLIP", is referred to as "the project", although it in fact forms part of the larger CSSI project that encompasses both the reline of 6BF and CLIP.

Prefeasibility assessment of the CLIP is currently underway. An environmental impact statement (EIS) is required to identify and assess the environmental issues associated with the project.

1.2 Purpose of this report

This scoping report has been prepared by GHD Pty Ltd (GHD) on behalf of BlueScope to support the application for Secretary's environmental assessment requirements (SEARS). SEARS will be issued by the NSW Department of Planning, Industry and Environment (DPIE). The SEARs will form the basis of an Environmental Impact Statement (EIS) prepared in accordance with the EP&A Act and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

1.3 Proponent details

BlueScope Steel (AIS) Pty Ltd (ABN 19 000 019 625) is the owner and operator of Port Kembla Steelworks and is the proponent for the project.

2. Site setting

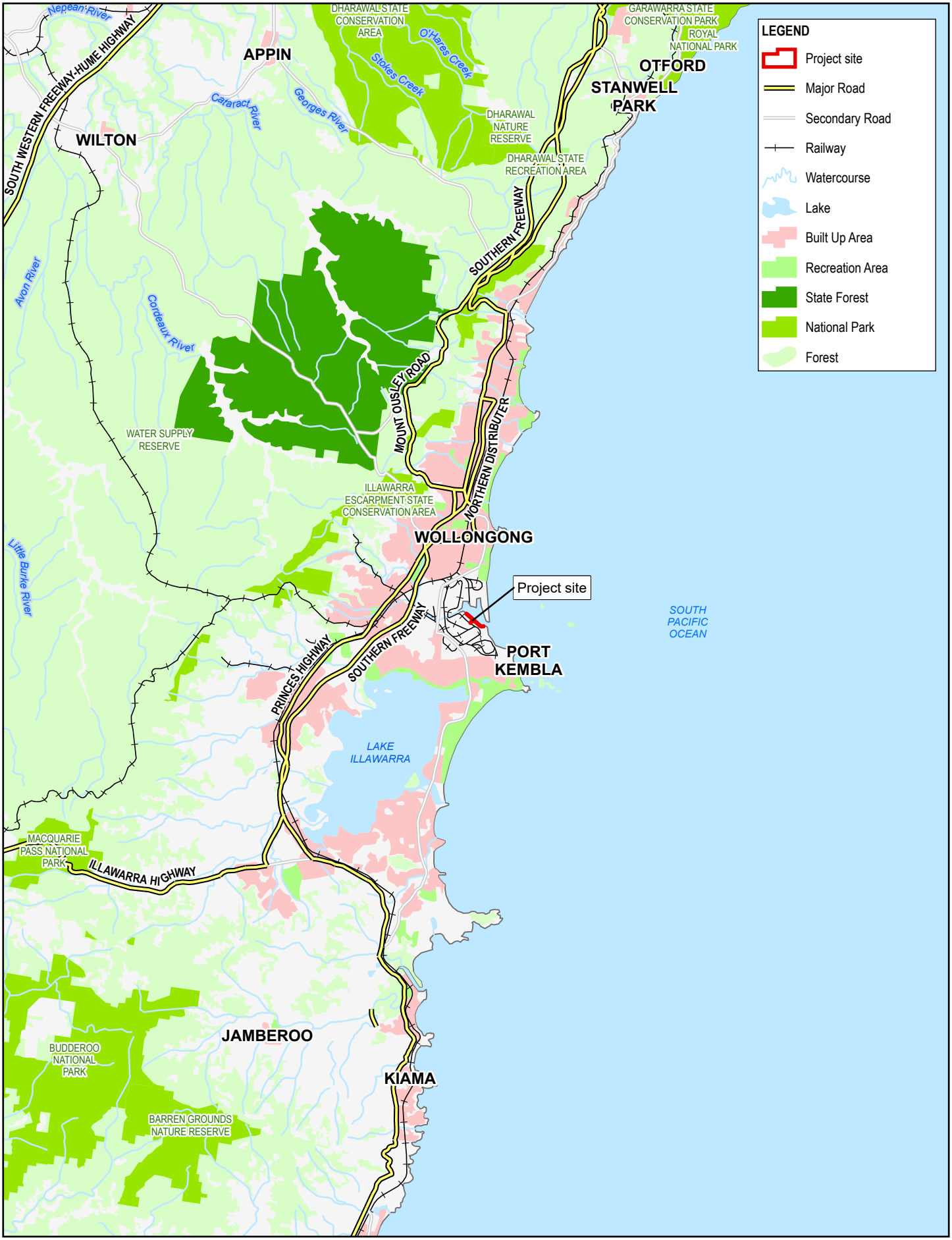
2.1 Site details

2.1.1 BlueScope's Port Kembla Steelworks

PKSW is located within an industrial site of approximately 750 hectares (ha) in the Wollongong Local Government Area (LGA) approximately 80 kilometres (km) from Sydney and 2.5 km from the City of Wollongong (see Figure 2.1). PKSW is the largest steel production facility in Australia and specialises in the production of flat steel products, including slab, hot rolled coil, cold rolled coil, plate, and coated and painted steel products.

The PKSW site comprises the No. 1 Works, No. 2 Works, Steelhaven and the Recycling area (see Figure 2.2). The No. 2 Works is divided into two sections by Allans Creek. The southern half of the No. 2 Works comprises the Cokemaking, Ironmaking and Steelmaking facilities, while the northern half contains the Rolling Mills and the Recycling Area. BlueScope leases and operates five berths in Port Kembla Inner Harbour to import raw materials and export finished goods (see Section 2.1.2). All sectors of PKSW are internally linked by road and rail and are currently supplied with electricity, water and gas services.

The land to which this project applies is within the southern section of the No. 2 Works (Lot 1 DP 606434) and the BlueScope leased berths in Port Kembla (Lot 72 DP 1182824) as well as a small area of land immediately adjacent to those berths (part of Lot 71 DP 1182824) which is subject to a month-to-month licence between NSW Ports and BlueScope.



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Kilometres

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Grid: GDA 1994 MGA Zone 56

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BlueScope Steel (AIS) Pty Ltd
Commodities Logistics Infrastructure Project
Scoping Report

Project No. **12555409**
Revision No. **0**
Date **25/01/2022**

Regional locality

FIGURE 2-1

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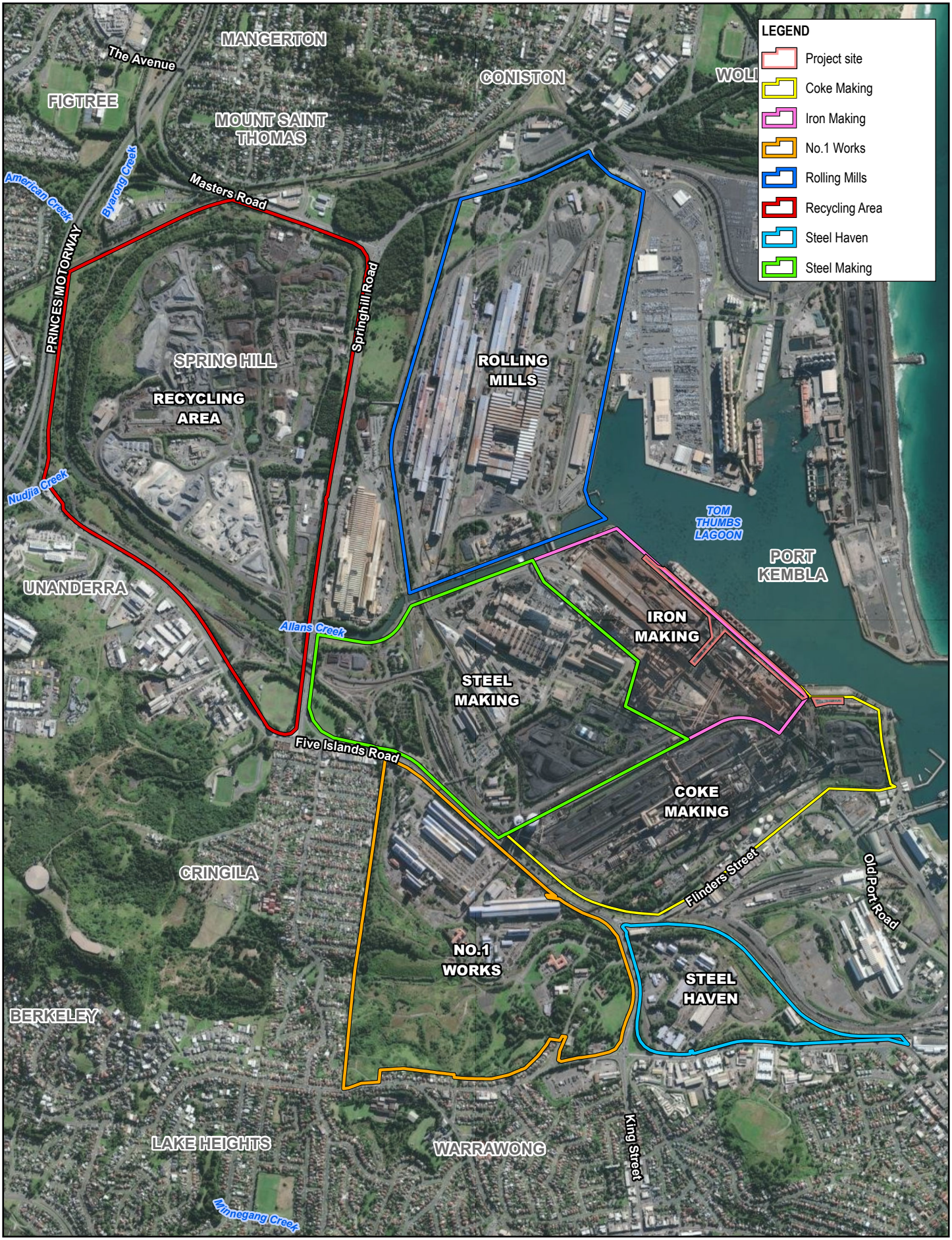

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Metres

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Commodities Logistics Infrastructure Project
Scoping Report

Port Kembla Steelworks site layout and locality

Project No. **12555409**
Revision No. **0**
Date **1/25/2022**

FIGURE 2-2

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Data source: LPI: DTDB, 2019. World Imagery: Maxar.
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2.1.2 Existing port facilities

Port Kembla is a deep-water harbour that operates across two harbours (the Inner and Outer Harbour). NSW Ports is responsible for port infrastructure at the port, while the NSW Port Authority manages functions including harbour control, vessel tracking, pilotage and navigation. Overall, there at 18 berths within Port Kembla. Two grain terminals operate in the northern part of the Inner Harbour, along with bulk liquid facilities and a number of multi-purpose berths. Port Kembla Coal Terminal is located on the eastern side of the Inner Harbour with a gas import terminal currently under development. Six berths operate in the Outer Harbour for fuel discharge and loading, bulk, and break bulk cargo.

BlueScope operates Berths 109, 110, 111, 112 and 113, which are located on the western side of the Inner Harbour (see Figure 2.3). These berths are leased from NSW Ports and are operated 24 hours a day, seven days a week. A summary of the BlueScope leased berths is provided in Table 2.1.

Table 2.1 Berths leased and operated by BlueScope

Berth	Length (m)	Breadth (m)	Depth (m)	Description
109	220	35	12.2	This berth is located to the north of the three Berths which are the subject of this Scoping Report. The berth is increasingly used to discharge imported and domestic scrap and to load steel coils for export and plant via land or ship based crane. There are no works proposed to this berth.
110	145	35	11	This berth was previously used for the Roll On Roll Off ships (ships designed to carry wheeled cargo) that were previously owned by BHP Limited. This berth is no longer used and there are no works proposed to this berth as its design is not suitable for the current shipping fleet.
111	310	50	15.5	The largest of the five berths, this berth is currently used to unload iron ore only as there are no facilities for truck unloading or a conveyor system to handle other materials without contaminating the iron ore stream. Vessels are typically unloaded using No.3 Ore Unloader (3OUL) although it is possible to also use No.2 Ore Unloader (2OUL).
112	278	50	12.8	This is a mid-sized berth suitable for Panamax vessels that are partially-loaded, or smaller Supramax and Handymax vessels. It is used for multiple materials including coal, limestone, iron ore pellets, scrap steel and other materials as required. Vessels are also loaded with export coke via this berth. Vessels are typically unloaded into trucks using 2OUL. Currently, 3OUL cannot be used on this berth because it lacks a truck loading chute. This berth currently has the highest utilisation of the BlueScope operated berths.
113	192	50	10.8 minimum	This is a small-sized berth suitable for Handymax vessels. As there are no berth mounted rails in this area, berth unloading cranes cannot operate in this area. Ship mounted cranes or land-based mobile cranes are used to handle cargos. It is used for scrap steel and some limestone cargos but has a low utilisation due to infrastructure and berth depth restrictions.

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Metres

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

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Relevant berth locations

FIGURE 2-3

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Data source: LPI: DTDB, 2019. World Imagery: Maxar.
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2.2 Baseline information

2.2.1 Project setting and land use

The project is located in Port Kembla in the Wollongong LGA and Illawarra region of NSW. Sydney is approximately 80 km to the north of Port Kembla, while the Wollongong Central Business District (CBD) is approximately 2.5 km to the north and Lake Illawarra is approximately 3 km to the south. Port Kembla is the main industrial centre of the Illawarra region.

Port Kembla lies in the coastal plain which is bounded to the west by the Illawarra Escarpment and to the east by the Pacific Ocean. Key features of Port Kembla include the heavy industrial area and the port. The heavy industrial area is constructed around the port and includes industrial developments such as PKSW, fertiliser production facilities, cement clinker grinding, and petroleum hydrocarbon storage and wholesaling.

The project site (see Figure 2.2) is zoned IN3 – Heavy Industrial and SP1 - Special Activities under *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP)[2]. PKSW and the adjacent Springhill Works together comprise the largest site in the Port Kembla industrial area, occupying approximately 750 ha, mostly built around the western and northern side of Port Kembla's Inner Harbour. The PKSW site is a multiuse industrial area which includes storage, manufacturing, port berths, private internal roads, and offices. Access to PKSW is provided by Springhill Road, Five Islands Road, Christy Drive and Flinders Street, and private internal roads within the PKSW site.

The port of Port Kembla is located between the Pacific Ocean and the Port Kembla heavy industrial area. The Inner Harbour, specifically developed as an all-weather shipping port, covers approximately 60 ha with around 2,900 m of commercial shipping berths. BlueScope currently leases five berths, which are used for the import and export of materials.

The area surrounding Port Kembla industrial area is primarily occupied by residential development. These urban areas provide small and large-scale retail outlets, community services (e.g., medical facilities, hospital, schools and sporting facilities) and commercial facilities (e.g., banking and post office). The closest urban developments to PKSW are the suburbs of Cringila, Berkeley, Lake Heights, Warrawong and Port Kembla to the south and Unanderra, Cobblers Hill, Mount St Thomas, Coniston and Figtree to the north and west. The urban areas of Cringila are located adjacent to the No. 1 Works and No. 2 Works areas and are the nearest to the project site, being approximately 1.5 kilometres to the southwest as shown on Figure 2.2.

2.2.2 Existing environment

The PKSW has been operating on the site since 1928. The site is composed of artificial fill including dredged sand, mud, rocks, and local soil. The site is flat and mostly sealed, with small areas of exposed soil usually associated with garden bed plantings. Soils at the site are classified as disturbed terrain, have a low probability of acid sulphate soils, and are generally susceptible to erosion, subsidence and lack permeability. PKSW is listed as a contaminated site on the EPA's register of contaminated sites, with contamination managed and regulated under licence conditions attached to BlueScope's Environment Protection Licence, EPL 6092. The site drains into two creeks, Main Drain and Allans Creek, which run into Tom Thumb Lagoon and Port Kembla Inner Harbour. There are also several constructed drains on the site. Groundwater beneath the site generally flows towards Tom Thumb Lagoon and Allans Creek. Surface water is drained from the site via the creeks into the harbour. PKSW is located above the 1 per cent AEP level.

The project site is entirely cleared of vegetation. Vegetation within the broader PKSW site comprises planted species and opportunistic weed species. No threatened ecological communities have been identified as occurring within PKSW. The site has recorded sightings of the endangered Green and Golden Bell Frog (*Litoria aurea*). The presence of the Green and Golden Bell Frog is managed across PKSW in accordance with site manual MA-ENV-03-03 Management of Threatened Species, the Green and Golden Bell Frog (BlueScope, 2021). Listed bird species may also visit the site temporarily.

[2] The provisions of the Three Ports SEPP will be transferred to the current draft *State Environmental Planning Policy (Transport and Infrastructure) 2021* on its gazettal which is anticipated to occur during the assessment of the project.

The Port Kembla Inner Harbour is a marine environment that contains several shipping berths and facilitates a wide variety of industrial activities. Port Kembla is a deep-water shipping channel that can accommodate vessels with a ship length of up to 311 metres. Passage from the Port Kembla Outer Harbour to the Inner Harbour requires navigation through a narrow channel called The Cut. The channel is well marked with navigational buoys, sector lights and leading marks. The Inner Harbour has historically been impacted by industrial and urban discharges, as well as port activities. These activities have led to the contamination of marine sediments and waters. Previous studies undertaken on the harbour have identified this contamination to be heightened levels of heavy metals and total suspended solids (TSS) (PK Environmental Group, 2005). Habitat within the Inner Harbour is comprised of hard substrates such as break walls, piles, and quay walls. The seabed is comprised of soft sediment and is lacking in seagrass communities. The sediment of the Inner Harbour is considered to have a high probability of acid sulphate soil occurrence. Biofouling communities previously identified within the area are oysters, gastropods, ascidians, tubeworms and bryozoans. The Inner Harbour also supports various fish species and is mapped as Key Fish Habitat (GHD, 2018).

No listed Aboriginal or historic heritage items have been recorded on the PKSW site. The nearest Aboriginal heritage item is located approximately 1,800 m from the project site. The nearest historic heritage item is the Commonwealth Rolling Mill Plant and Gardens located approximately 1,700 m to the south of the project site.

Traffic associated with PKSW enters the PKSW site via Springhill Road, Five Islands Road, Christy Drive and Flinders Street. PKSW is located close to the Princes Motorway, Princes Highway, Shellharbour Road and Masters Road which are used as major transport roads for vehicles transiting to wider NSW. PKSW also contains several internal roads and a functioning dock area for transport of goods via shipping.

Current industrial activities at PKSW generate dust, steam, particulate matter, unfiltered air and gasses. Noise is also generated by activities at PKSW and other surrounding industrial uses. The closest sensitive receivers to the proposed CLIP are residences located approximately 2.4 km to the northwest of the project site.

A detailed description of the existing environment in relation to each of the key and other environmental issues relevant to the project is provided in Chapter 5.

2.3 Land ownership

The project will be partially located within Lot 1 DP606434, which is part of the PKSW site owned by BlueScope. The remainder of the project will be located predominantly within Lot 72 DP1182824, with a very small component of the work to be carried out on Lot 71 DP1182824. Both lots 72 and 71 are the subject of 99 year leases from the NSW Government to NSW Ports. Lot 72 is, in turn, leased to BlueScope by NSW Ports. NSW Ports has also granted a licence to BlueScope in relation to Lot 71 DP 11882824, which currently continues on a month to month basis.

3. Description of the project

3.1 Project overview

The project will involve upgrade of Berths 111, 112 and 113 (the Berths) to allow BlueScope to secure its supply chains for a variety of raw materials, including iron ore, metallurgical coal, scrap steel, limestone, dolomite and other minor commodities. The capital investment value of the project is in the range of $100 – $160 million.

Each of the project components are described in Section 3.3 of this report, with key project features shown on Figure 3.2.

3.2 Project rationale and alternatives considered

3.2.1 Project rationale

PKSW currently operates as an integrated iron and steel plant utilising Blast Furnace ironmaking and Basic Oxygen Furnace steelmaking (BF-BOF operating model). The plant is co-located with hot rolling mills for plate and coil and has adjacent manufacturing facilities for coated products, flat products and welded beams. Current operations produce around 3.1 million metric tonnes of steel per year (Mtpa) of which around 2 Mtpa services the domestic market with the remainder being exported.

To maintain its operations, PKSW requires a continuous supply of raw materials, including iron ore, metallurgical coal, scrap steel, limestone, dolomite, and other minor commodities. These raw materials enter the precinct via road, rail and sea, including via the five BlueScope leased berths within Port Kembla. Typically, local commodity supplies enter via road or rail, with supplies of materials from further afield entering via sea. The existing ship unloading infrastructure located at the Berths is over 50 years old and cannot achieve the increased throughput required to support ongoing steelmaking operations at PKSW. Recent and emerging disruptions to key commodity supply chains (particularly in relation to metallurgical coal, as explained below) have highlighted the importance of the upgrade to the Berths proposed by the project.

At present, the Berths handle about 6 million tonnes of raw materials per annum. This will need to be expanded to accommodate at least an additional 1 million tonnes per annum from as early as November 2024. The upgrade to the raw material handling capabilities of the Berths is critical for the on-going security of the steelworks, predominantly due to the significant disruption to the local supply of premium metallurgical coal that will occur within the next five years. BlueScope uses metallurgical coal in its coke ovens at PKSW to produce coke, which is a fuel source for the blast furnace and a carburising agent. Metallurgical or coking coal differs from thermal coal due to its higher energy content and lower moisture content.

Currently, BlueScope obtains a unique blend of 3-seam coal (also known as Wongawilli seam) from South32's Dendrobium operations and 1-seam coal (also known as Bulli seam) from South32's Appin operations. BlueScope also imports via ship a relatively small amount of coal from outside NSW.

South32 has notified BlueScope in writing that from as early as November 2024, it will not be able to supply BlueScope with 3-seam coal as it will have exhausted available reserves at its Dendrobium mine. 3-seam coal has specific qualities which are critical to the overall ability of the coal blend to satisfy the particular coke making requirements that are essential for blast furnace performance. Blast furnace performance is critical not only to the volume and quality of the steel products produced, but also to the rate of fuel required per tonne of iron produced and BlueScope's overall commercial competitiveness. BlueScope remains committed to maximising local coal supplies where they are available and suitable but must maintain the quality of its coal blend to avoid the need for increased throughput of coal (which will in turn increase greenhouse gas emissions).

Unless South32's inability to supply 3-seam can be addressed, to maintain the quality of its coal blend, BlueScope will need to blend the existing Appin coal with an alternate third-party coal to produce an equivalent and suitable coking coal blend. BlueScope has not identified suitable alternate coal supply located within NSW (that is, it has not identified alternate sources within NSW which would not negatively and significantly impact both productivity and greenhouse gas emissions). The distances and logistics involved in sourcing suitable coal are such that the alternative metallurgical coal must be imported via Port Kembla Harbour.

The Berths at PKSW cannot accommodate the increase in capacity which will be required to import alternate coal sources, maintain existing raw material volumes and provide flexibility or contingency for supply chain disruptions in other raw materials required for steelmaking. As a result, an upgrade of the Berths is urgently required.

Construction of the project is expected to take greater than 27 months to complete.

The project will allow operations to continue at PKSW, maintain the provision of steel to the domestic and export markets, and continue to provide economic benefit to the Illawarra region.

3.2.2 Alternatives considered

BlueScope has investigated four alternatives for secure supply of steelmaking commodities to PKSW, each of which are described below.

Option 1 – Current import capabilities

This option involves no changes to current berth infrastructure and the delivery of commodities, including coal, to PKSW via the existing mix of road, rail and ship. Due to the types of coal available within the areas economically serviced by road and rail, a different blend of metallurgical coal would need to be developed for use in the coke ovens. Current trials have shown that it is unlikely that a mix of locally sourced coal would be able to produce a competent coke capable of maintaining the current blast furnace performance, thus impacting the volume of hot metal produced in the blast furnace, and increasing the fuel required per tonne of hot metal. Increased fuel rate would, in turn, increase GHG emissions and erode the cost competitiveness of steel products on the global market.

Option 1 is the closest to a 'do nothing' option and means that PKSW would not retain the current cost effectiveness of production and/or obtain the potential security and efficiency gains which would result from the preferred option.

Option 2 – Construct a new SU at Berth 111 and install supporting infrastructure across the Berths

This option involves construction of a bucket type or grab type SU at Berth 111 to obtain the maximum utilisation out of the largest, deepest berth. This will allow the unloading of iron ore and metallurgical coal on Berth 111 without the risk of cross-contamination, enabling the use of larger classes of vessels at the berth. Together with the other changes to conveyor infrastructure, trucking infrastructure and mounted rail tracks, this option will improve the inter-operability, capacity and operational efficiency of the Berths and provide for future capacity requirements, including the required increase in imported metallurgical coal (critical to BlueScope's operations) and the handling of other materials (e.g. biochar) which may have the potential to improve GHG emissions per tonne of steel. Option 2 will also have benefits in potential efficiency gains with the import and handling of other raw materials that are required for both current PKSW operations and any potential future expansion of exports or additional imports.

Option 3 – Construct a Ship unloader at Berth 112

This option involves construction of a Siwertell ship unloader at Berth 112. A Siwertell is an unloading machine similar in nature to a SU, utilising a vertical screw instead of the bucket elevator mechanism. This will maximise the utilisation of this berth and allow a more efficient unloading of coal and other minor materials. As Berth 112 is a smaller, shallower berth than Berth 111, it does not provide the advantage of accommodating the larger vessel classes. This option will provide limited improvements to the capacity of the Berths and will not adequately address any future raw material capacity requirements.

Option 4 – Construct a Ship unloader at Port Kembla Coal Terminal

This option involves construction of a Siwertell ship unloader at Port Kembla Coal Terminal (PKCT) Berth 102 to convert it into an export / import berth. PKCT conveying, stacking storage, reclaiming and truck dispatch facilities will then be utilised to transport the coal to PKSW. While this option will not impact existing operations at BlueScope's leased berths, it will take importation out of BlueScope's control, requiring agreement and coordination with PKCT. It will also place constraints on the operation of PKCT. This option will not address any existing or future utilisation and capacity issues for the BlueScope Berths.

Preferred Option

Option 2 is the preferred option for the following reasons:

– This option will result in the greatest increase in capacity and flexibility in operations of the Berths. It allows for the import of the required critical raw material quantities for continued production including the required mix of metallurgical coal types to produce sufficient quality coke for optimal blast furnace operations.
– The capacity and operational improvements provided by option 2 allow for potential future increases in material throughout via the Berths and deliver security and flexibility in raw material supply.
– The inter-operability of the Berths means the facilities can also be more readily used for increased and/or new materials needed to support GHG reduction strategies (e.g., the potential use of biochar).
– Modernisation of ship unloading equipment provides the potential for improved environmental and safety performance.
– While option 1 would have the lowest capital cost, it would introduce unacceptable risks to operations and steel production at PKSW, through the introduction of lower quality coke to the Blast Furnace and increased consumption of coal with negative repercussions for greenhouse gas emissions.

3.3 Project components

The preferred project option involves installing a ship unloader at Berth 111 that is capable of handling both iron ore and coal. Unloading equipment that can accommodate both iron ore and coal will create availability on all BlueScope leased berths and secure long term operational security at PKSW.

The project includes modifications to berth infrastructure to facilitate the installation of new rails and conveyors and upgrade of Berths 111, 112 and 113, including the following:

– Installation of a new ship unloader
– Relocation of, and modifications to, existing unloader
– Modifications to existing, and installation of new, conveyors for material handling
– New truck loading facilities and a truck wash area
– Modifications to berth infrastructure
– Relocation of the coke loader and coke transfer house
– Other modifications and works necessary to facilitate the installation of the new infrastructure
– Automation of the new ship unloader and existing ship unloading cranes
– The modification and upgrade of associated infrastructure that supports the operation of Berths 111, 112 and 113

Key features of the project are shown in Figure 3.1. A simplified process flow diagram is shown in Figure 3.2, with new or modified equipment shown in blue.

Paper Size ISO A4

0 50 100 150 200

Metres

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

N

GHD

BlueScope Steel (AIS) Pty Ltd
Commodities Logistics Infrastructure Project
Scoping Report

Project No. **12555409**
Revision No. **0**
Date **25/01/2022**

Key project features

FIGURE 3-1

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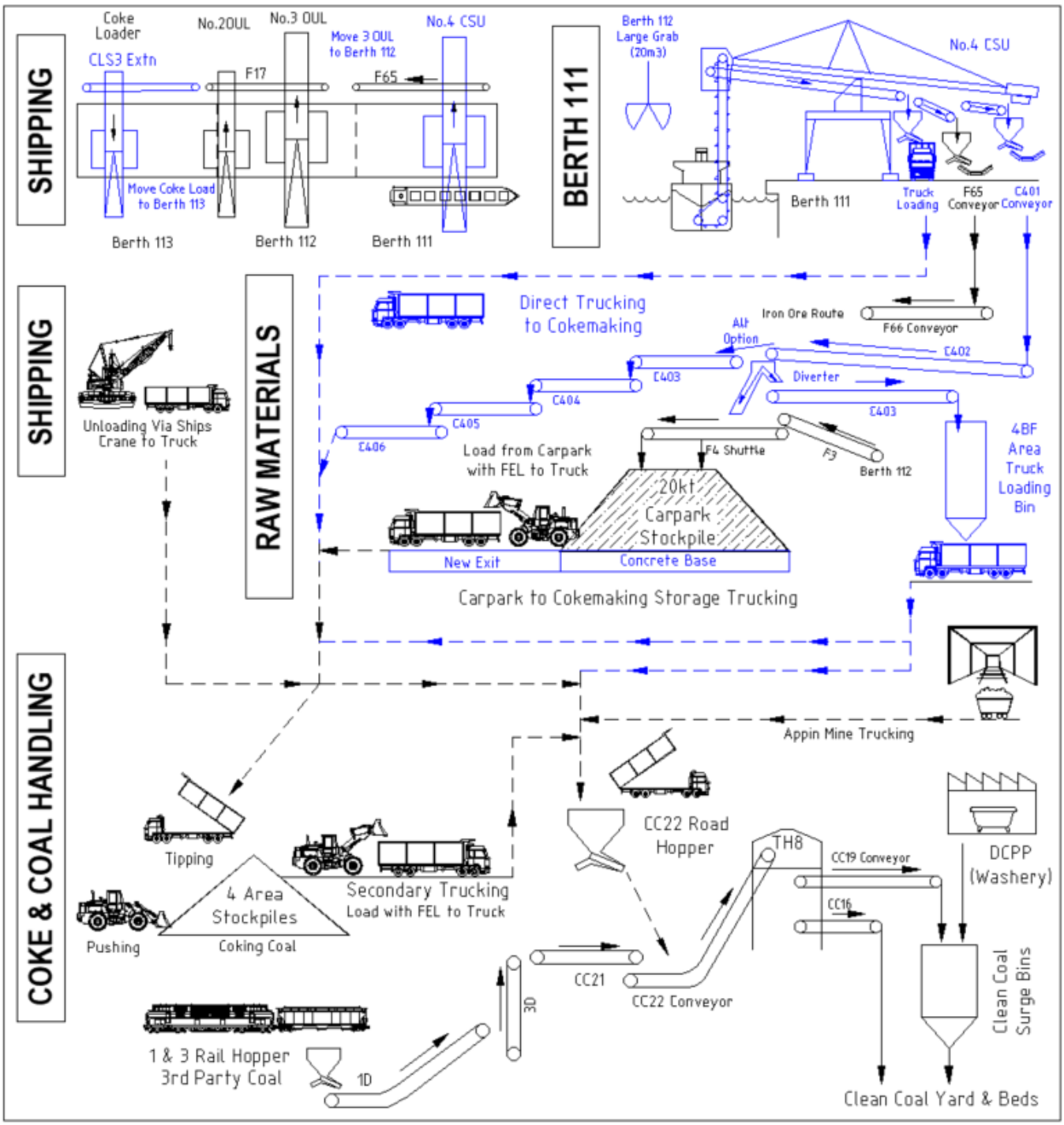


Figure 3.2 ***Simplified process flow diagram***

3.3.1 Ship Unloader (SU)

Ship unloaders (SU) are equipped with a bucket-elevator unloading device that is suspended from a boom. The material to be unloaded is scooped from the ship by the bucket elevator then transported vertically to the top of the SU boom, where it is unloaded onto a conveyor belt. The entire bucket elevator system can fully rotate, allowing access to the entire hold of the ship. This enables improved emptying of the hold and reduces the requirement for trimming. Trimming is the process whereby the material left in the hold structural elements, corners, access ways and other locations is cleaned and piled to allow the unloader to be able to reach it. The SU traverses on pier-mounted rails along the full length of a ship.

The SU proposed for construction at Berth 111 will allow for the handling of both coal and iron ore and will be capable of achieving a maximum discharge rate of up to 50,000 tonnes per day. The design of the SU will reduce trimming time, providing significant reductions in the time taken to completely discharge a ship and therefore increasing the throughput of the berth.

The SU also removes the risk of damaging the ship as the machine head is placed inside the hold once and then remains inside the hold during the entire unloading operation.

An example of a bucket type and grab type SU is shown in Figure 3.3 and Figure 3.4.

Figure 3.3 Example 1 of SU machinery

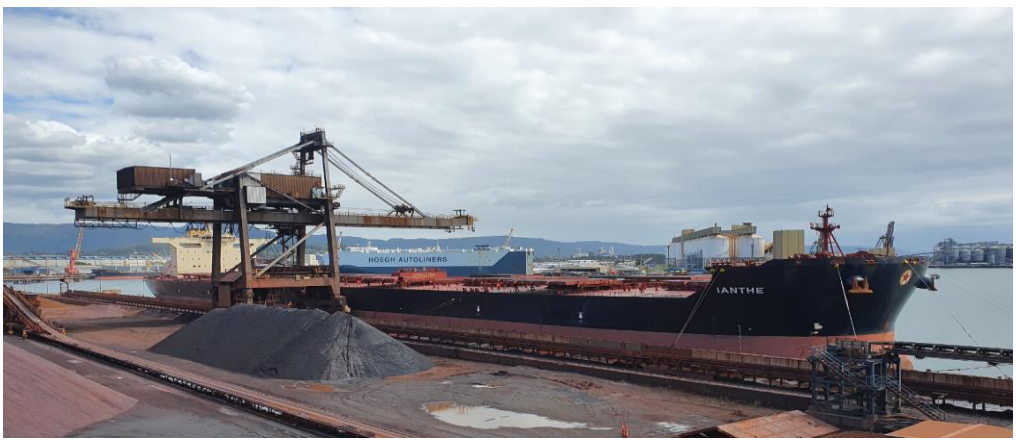


Figure 3.4 Example 2 of SU machinery

3.3.2 New conveying infrastructure

Berth 111 is the main berth for importing high volume raw materials for the operation of PKSW. This is primarily iron ore which makes up over 3 million tonnes of the total 6 million tonnes of commodities imported across all the berths. Significant infrastructure including multiple conveyor paths already exists for iron ore to be discharged at Berth 111 and distributed to the various stockpile locations. Due to the proximity of iron ore stockpiles to the Berth, most iron ore is transported via conveyor belt.

New infrastructure is a key requirement for unloading coal on Berth 111 to ensure that the coal and iron ore materials are not mixed or contaminated with each other. To facilitate the discharge of multiple materials, it is proposed to duplicate the iron ore materials handling system in the conveying chain along Berth 111. As the coal storage stockpiles are in multiple locations in areas away from the Berth, a new truck loading facility (see Section 3.3.3) is required to be constructed. This will require the construction of several new conveyors to link Berth 111 to the truck loading facility. The proposed location of the new conveyors is shown on Figure 3.1.

To facilitate the shortest movement of material from Berth 111 to the new truck loading facilities and avoid contamination, a new conveyor, nominated as C401, will be installed parallel to the existing conveyor along the back of Berth 111. Conveyor C401 will move the coal at up to 2,500 tonnes per hour (tph) and transfer it onto a second new conveyor, C402, located behind Berth 111.

Conveyor C402 will transfer and elevate the coal from conveyor C401 up to a diverter chute where it can be diverted to the existing conveyor system or onto a third new conveyor, C403, to take the material to the new truck loading facilities. Alternatively, coal could be diverted to conveyor C404 and C405 to transport coal to the main storage stockpile.

3.3.3 Truck loading facilities

To meet the required clearance rate of coal during the unloading process, a new truck loading bin facility will be installed in an existing cleared and vacant area formerly occupied by the No.4 Blast Furnace (see Figure 3.1). This will allow trucks to be filled from the bin directly, reducing material handling and increasing the rate that coal can be loaded into trucks from the conveyor. All truck movements required to clear coal from the berths will occur within the PKSW site.

The bin will be sized to store up to approximately 1,000 tonnes of coal, which equates to a capacity of 40 truck loads, at 25 tonnes per truck. Once the bin is full, a diverter chute located at the head of conveyor C402 will divert the coal from the CSU onto the existing F4 conveyor system and then to a temporary storage and surge capacity area, located behind Berth 111.

The raw materials handling area is currently serviced by a mobile wheel bath tank to rinse the wheels of vehicles leaving the area. This facility is inadequate for the increased volume of trucks. The wheel bath is proposed to be replaced with a full truck washing facility.

3.3.4 Relocation of existing infrastructure

Relocation of 3 Ore Unloader

The installation of the SU on Berth 111 will require the 3OUL to be relocated for primary use at Berth 112. The relocated 3OUL will still be able to operate at Berth 111 if required, providing redundancy in the event of a failure of the proposed SU.

Relocation of Coke unloader

The project will include extending the rails on Berth 112 to include Berth 113, and relocating the coke loader to allow it to operate on Berth 113. This will free up significant space for the 2OUL to operate across Berths 112 and 113, extending its operating range and providing greater operating flexibility across the Berths.

Relocation of 2 Ore Unloader

The installation of the SU on Berth 111, relocation of the 3OUL to Berth 112 and coke loader to Berth 113 will require the 2OUL to operate across both Berths 112 and 113.

3.4 Construction activities

The construction of the project involves the following key steps:

– Inspections and condition assessments:
  - Pre-work in advance of berth activities will include condition assessments of the Berths, 3OUL, 2OUL, Coke Loader and associated equipment to determine the scope of modifications required to the Berths and identify equipment requirements.

– Berth modifications:
  - Design, manufacture and installation of modifications to Berths 112, 113 and infrastructure to allow the relocation of the coke loader and 3OUL.

– Site preparation:
  - Development, clearing and preparation of laydown and work areas, in particular the Berth 113 construction site, including modifications to berth operations to allow operations to continue during construction.

– Assembly and installation of the SU and associated materials handling equipment:
  - The SU will be delivered completely assembled and lifted onto Berth 111 from a heavy lift ship. This will allow the SU to be assembled in a purpose-built workshop and fully function tested prior to shipment.
  - The SU will be installed and integrated into the existing systems and then commissioned.
  - New conveyors and truck loading facilities will be installed and their systems automated and integrated into site operations.

– Demobilisation:
  - Removal of construction compound and layout down areas and return of construction areas to their previous use.

3.5 Site access

The majority of the construction traffic will access the site via the major roads that service the Port Kembla industrial area, including the Princes Motorway and Princes Highway, Shellharbour Road, Springhill Road, Five Islands Road and Masters Road. The primary access points for CLIP construction activities are from the south via Old Port Road and Christy Drive. Site access is discussed further in Section 5.3.1. No changes to existing access arrangements are proposed as part of the project. Onsite parking will be available for the workforce as shown in Figure 3.1.

3.6 Construction laydown areas

Laydown areas for construction equipment and materials is anticipated to be within the PKSW site located within existing established areas (see Figure 3.1). The delivery of materials and equipment to the work sites will be staged as required.

3.7 Construction materials and equipment

Much of the equipment and materials required for the project have a long lead time for procurement. Specific types and quantities of equipment and materials will be determined during project planning. An indicative list of equipment and materials that may be required for the project is provided in Table 3.1 and Table 3.2 respectively.

Table 3.1 Indicative construction equipment

Construction equipment		
Excavators- Various Sizes	Concrete Trucks	Welding machines
Bulldozers	Contractor service vehicles	Site Sheds
Dump Trucks	Rollers	Boring machines
Mobile Cranes- various sizes	Piling Rigs	Asphalting machines
Elevated Work Platforms	Semi-Trailers	Rockbreakers
Concrete pumps	Vacuum Trucks	-

Table 3.2 Indicative construction materials

Construction material	Approximate quantity
Piles	Greater than 600
Reinforced Concrete including steel reinforcing	To be determined
Aggregates, sand, etc	To be determined
Concrete pipes, culverts	To be determined
Steel Structures	To be determined
Conveyor Belt	To be determined
Asphalt	To be determined
Motors, gearboxes, hydraulic & air cylinders	To be determined
Steel wire ropes	To be determined

3.8 Workforce

It is anticipated that labour requirements for the project will be modest and mostly satisfied by local contractors.

Across the duration of the project, a workforce of approximately 80 - 100 full-time equivalent (FTE) workers will be required.

During operation, it is anticipated that workforce requirements will not change significantly from existing operations requiring approximately 20 direct and 10 indirect FTE workers.

3.9 Work hours

Authorisation for 24-hour construction is being sought as part of the request for planning approval.

Where practical, and subject to the final construction timetable, construction will be carried out during the following construction hours:

– Monday to Friday: 7.00 am to 6.00 pm
– Saturday: 7.00 am to 6.00 pm
– Sundays and public holidays: no work

However, there will be several construction activities scheduled to be undertaken outside of standard hours to manage interaction with the remainder of PKSW operations, shipping movements, tidal flows and the higher day shift workforce. The SU itself will be transported to site by ship and require a crane lift from ship to shore. This operation and other significant crane lifts will need to be undertaken during the early morning prior to 7.00 am when weather conditions are calmest. Additionally, contractors for piling works generally operate in 14 to 16 hour shifts requiring some works outside standard hours.

Where practical, noise generating activities with potential to impact any nearby receivers will be scheduled during standard hours.

Operation of the project will be 24 hours per day seven days a week consistent with current operations.

3.10 Work schedule

It is critical to the continuation of steelmaking at PKSW that the project is completed and operational no later than November 2024. Construction of the project is expected to take greater than 27 months to complete. Procurement of long lead time items is 14 to 24 months depending on the strategy adopted and availability of materials and ships. To achieve the time frame required, the SU must be ordered no later than October 2022 if the infrastructure is to be installed and commissioned ready for the import of commodities by November 2024.

3.11 CLIP operation

Berth utilisation

The project will result in an additional 1.0 million tonnes per annum (mtpa) of material discharged through the BlueScope leased berths. The upgrade to the capacity of Berth 111 will maximise the use of this deeper berth to accommodate more frequent use of the larger class of Cape sized ships and fully loaded Panamax ships.

Due to their larger hold capacity relative to Panamax or Handysize ships, Cape sized vessels improve berth utilisation through economies of scale while fully loading Panamax ships ensures the full use of ship capacity. The installation of the higher capacity unloading equipment and the use of larger ship classes will reduce total berthing, vessel turning, and wharfing time. Berth 112 will then have available capacity for other materials, while the extension of rails to Berth 113 will significantly improve the utilisation of that berth and the overall flexibility across the Berths.

Through improving the total ship discharge rate and berth flexibility, additional berthing days will become available, allowing more ships to be processed by the Berths in an annual period. It is estimated that the project will result in an additional 15 ships utilising the Berths per year in addition to the 80 to 100 ships already generated by PKSW operations.

Berth clearance

Once material has been discharged from a ship, it must be removed and cleared from the berth at a rate that is equal to or greater than the rate of discharge of the unloading machines. Materials that are used in the ironmaking process such as iron ore and limestone are stored and blended in the raw materials handling area adjacent to the berths. Significant infrastructure including multiple conveyor paths already exists to allow the blending and stockpiling of iron ore and other commodities.

Coal, however, is used in the cokemaking process, which is located in a different section of PKSW and therefore does not have any have permanent storage areas within the raw materials handling area. Coal must instead be transported, by truck, to the coal storage areas located in various locations of the plant depending on the coal type including the cokemaking and recycling areas (see Figure 2.2).

Discharged coal will either be trucked directly from the berth, truck loading bin or from the temporary storage area; trucking must occur at a sufficient rate so as not to impede discharge from the ship. To match the ship discharge rate, a clearance rate for coal of around 20,000 tonnes per day (tpd), or 840 tonnes per hour (tph), from the berth, truck loading bin and temporary storage area to the relevant areas will be required. This will equate to around 34 truck movements per hour.

Based on the estimated daily and annual volume of coal to be transported, it is expected that a trucking fleet of around 25 trucks will be required to accommodate the additional 1.0 mtpa of imported coal.

It is anticipated that berth clearance activities will utilise existing internal roads and transport routes within the PKSW site.

3.12 Project exclusions

The following activities are excluded from the project:

- Tests, surveys, sampling, or investigation for the purposes of the design or assessment of the project.
- Any development undertaken prior to the commencement of construction of the project that is the subject of a complying development certificate or that would otherwise be development which is exempt development or development which does not require development consent.
- Any of the following undertaken prior to the commencement of the construction of the project:
  - Adjustments to, or relocation of, existing utilities infrastructure and installation of new utilities infrastructure.
  - The establishment of construction compounds including the erection of temporary buildings and the provision of associated facilities including access roads and car parks.
- Where approved as part of an existing consent or otherwise exempt or complying development, removal of existing steelworks infrastructure, buildings and redundant underground services.
- The ongoing repair and maintenance of existing infrastructure associated with the Berths in accordance with the terms of the leases from NSW Ports.

4. Strategic and statutory context

4.1 Critical state significant infrastructure

The CLIP is a key component of the reline of 6BF (No. 6 BF Upgrade Project), which has been declared CSSI as it is considered essential to NSW for the following economic and social reasons:

– The No.6 BF Upgrade Project is critical to the supply of approximately 2.2 million tonnes of steel to the domestic market per annum, which is used in a range of materials that are essential to supporting a range of major NSW infrastructure and construction projects, including some projects which are themselves declared to be CSSI, such as:
  - Roads and rail projects
  - Building and construction projects, including hospitals, schools, stadiums, dwellings, commercial and industrial buildings
– Steel is essential to the construction of energy infrastructure, including wind turbines, solar farms, electricity transmission infrastructure and pumped hydro.
– PKSW provides a significant contribution to the local and NSW economy, including $10.3 billion in output per annum, equivalent to 1 per cent of Gross State Product.
– The CLIP is a major component of the No.6 BF Upgrade Project and will involve the construction of state-of-the-art raw materials import facilities, which will be among the leading facilities of their type in Australia.
– The estimated capital investment for the CLIP is between $100 – 160 million.

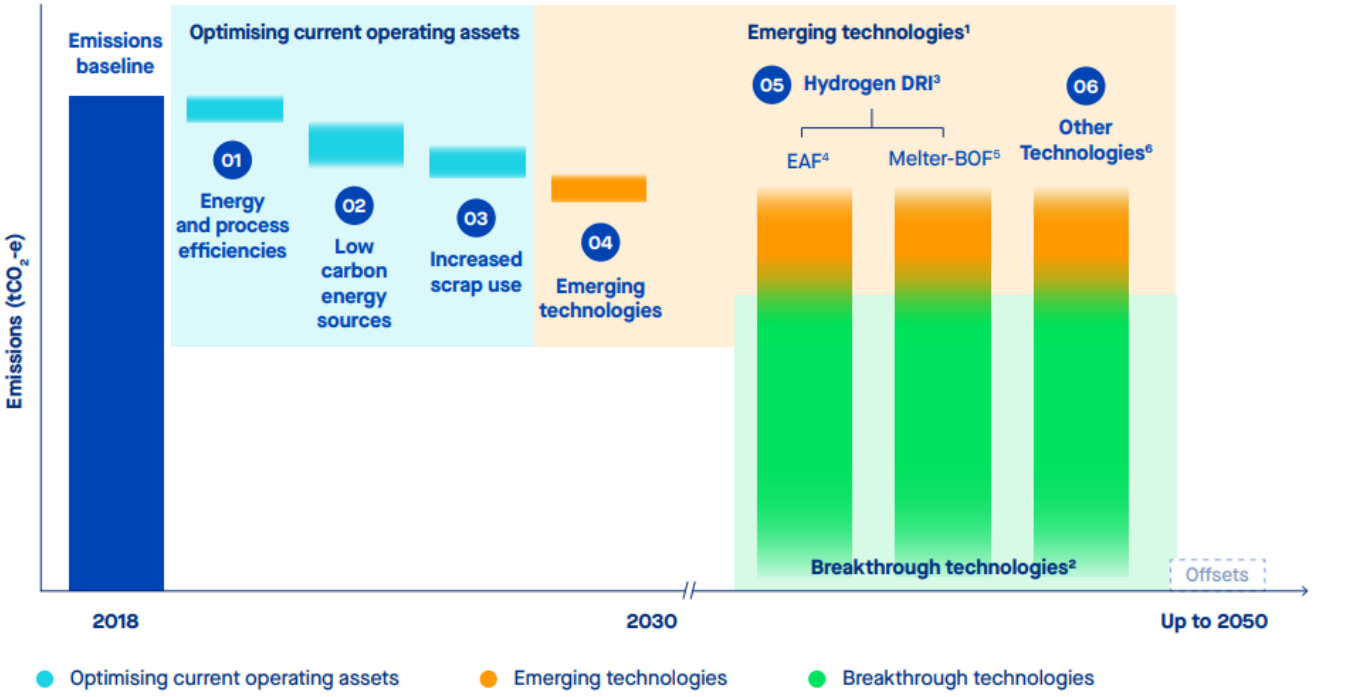
4.2 Global and national strategic context

Increasing globalisation has led to a thinning of industrial production in developed economies such as Australia, raising concerns for the nation's capacity to produce goods locally in the event of a disruption to world trade. COVID-19 has served as a recent example of this risk. Although the full impact of COVID-19 will not become apparent for some time, it has disrupted many global supply chains, highlighting the risk of being too reliant upon those supply chains for critical products.

Cessation of ironmaking in Australia is an issue of national importance, as steel is a material supply into critical strategic industries and projects including but not limited to major critical infrastructure projects and the defence industry. The complexity and outright cost to establish replacement ironmaking, steelmaking and hot-rolling facilities may be prohibitive if PKSW is shut down and this could have considerable consequences for supply chain security for these critical industries and projects.

PKSW is a regionally cost-competitive steel maker that is located close to major population centres and is well-served by port, rail and road logistics. PKSW is one of only two integrated steelworks in Australia, and the only Australian facility producing hot-rolled steel product for downstream processing.

The CLIP is a key component of the No.6 BF Upgrade Project and is fundamental to BlueScope's ability to continue steelmaking in Australia. Whilst BlueScope has considered all potential alternatives to continuing to produce steel via the blast furnace route, relining 6BF remains the most technically and commercially feasible option. Emerging technologies that will help enable net zero emissions in the steelmaking sector and remove reliance on metallurgical coal are generally still at an early stage of technical and commercial readiness. Based on current research, BlueScope expects low emissions steelmaking technologies will continue to develop over the current and following decade, with significant take-up across the steel industry predicted to occur into the 2040s; BlueScope is investigating these options in collaboration with Rio Tinto and has also commenced a collaboration with Shell in relation to renewable hydrogen projects in the Illawarra. An overview of BlueScope iron and steelmaking decarbonisation pathway is outlined in Figure 4.1. Even when low emissions steelmaking technologies are appropriate for adoption at PKSW, import of reconfigured raw materials will remain critical to future operations. As such, the CLIP is fundamental to maintaining critical and strategic steelmaking capacity in Australia by providing PKSW with supply chain security.



1 Emerging technologies refers to demonstrated technology that is commercially available but requires further application to integrated steelworks, e.g. biochar, hydrogen tuyere injection, etc.
2 Breakthrough technologies refers to technology not yet commercialised, currently at concept or pilot stage, or not yet applied to integrated steelworks (e.g low Technology Readiness Level (TRL)).
3 Contingent upon feasible supply of hydrogen from renewable sources.
4 Requires suitable high-grade ores, estimated at less than 15% of available ores and access to cost-effective energy sources.
5 For Melter-BOF, DRI-melter replaces the blast furnace. Maintains existing BOF and caster infrastructure, and allows a wider range of ores to be used.
6 Other technologies include CCUS, electrolytic reduction, etc.
7 Each technology option is allocated a number which corresponds to information outlined in this section.

Figure 4.1 Decarbonisation pathway. Source: BlueScope Climate Action Report 2021

4.3 State and local strategic context

The Illawarra region has grown with the steel industry and continues to rely upon the steel industry as a major contributor to the local economy, through direct employment, employment of contractors and by supporting downstream manufacturers. Centred around the steel industry, the Illawarra has accumulated a highly skilled workforce and contractor base from which a broader range of industries can draw.

The Illawarra is emerging as a major industrial hub for manufacturing and energy infrastructure. A number of potential energy projects have been identified in connection with the area, including the Port Kembla Gas Terminal for the import of Liquified Natural Gas (LNG) and the potential associated development of a dual fuel LNG-Hydrogen power station. In addition, there is the potential development of the Illawarra Hydrogen Hub as part of the National Hydrogen Roadmap and NSW Electricity Roadmap. BlueScope is also supporting sustainable manufacturing through the commitment to invest $20 million in the BlueScope Renewable Manufacturing Zone (BRMZ), as announced in November 2020.

BlueScope's position as an established manufacturer and potential customer will be of value to these projects and will help support many more than its own 3,000 direct employees, 1,000-1,500 contractors and around 10,000 jobs in total including indirect employment, mostly in NSW. The project is therefore an important factor in maintaining the Illawarra's contribution to the state and national economies.

4.4 Strategic policies

4.4.1 NSW 2040 Economic Blueprint

The NSW 2040 Economic Blueprint (NSW Government 2019) (Blueprint) aims to inform views on what the NSW economy can achieve over the next two decades. The Blueprint has been informed by research on economic, employment and productivity trends, and through broad consultation with various stakeholders. The Blueprint identifies a range of recommendations to enhance the performance of the NSW economy guided by the following aspirations:

– A two-trillion-dollar economy after 2040
– Healthy, productive people
– Vibrant, well-connected cities
– Productive, vibrant regions
– Innovative, world-class businesses
– Sustainable environmental and resources management
– Better government performance

A key aspect of the Blueprint in achieving the above aspirations is a focus on economic growth, advanced manufacturing and new industries. The project will contribute to these areas through the significant capital investment it involves in delivering benefits to the State economy. Additionally, the CLIP will ensure PKSW continues to deliver $10.3 billion in output for the State per annum, the equivalent of 1 per cent of Gross NSW State Product.

4.4.2 NSW Climate Change Policy Framework

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

The policy framework defines the NSW Government's role in reducing carbon emissions and adapting to the impacts of climate change. The Net Zero Plan outlines how the NSW Governments climate change objectives will be achieved and is released in stages to enable evolving technologies to be incorporated into future stages and to allow for continual improvement over time with the aim of achieving net zero emissions by 2050. As outlined in Section 5.3.9 BlueScope's own climate change policy aims to achieve net zero emissions by 2050 and is consistent with the NSW Climate Change Policy Framework. The first stage objective is outlined in the Net Zero Plan Stage 1: 2020–2030.

Net Zero Plan Stage 1: 2020–2030

The Net Zero Plan Stage 1: 2020–2030 outlines four key priorities in regard to emission reductions to 2030. These are:

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

BlueScope's own climate change strategy as outlined in the BlueScope Climate Action Report includes medium term targets to be achieved by 2030 on the path to achieving net zero emissions by 2050. Key to this is the uptake of proven emission reduction technologies as they become viable and investment in emissions reduction innovations. Through achieving its targets, BlueScope will provide its customers with products that have been produced in alignment with the Net Zero Plan.

Section 5.3.9 of this report provides further detail regarding BlueScope's Climate Action Report, and measures and actions being implemented to achieve the specified emissions reduction targets by 2030 and net zero emissions by 2050. The project will be undertaken in accordance with the Climate Action Report and is therefore consistent with the NSW Climate Change Policy Framework and Net Zero Plan Stage 1: 2020–2030.

4.4.3 NSW COVID-19 Recovery Plan

The NSW COVID-19 Recovery Plan (NSW Government 2020) is the NSW government's plan to ensure the NSW economy is rebuilt following the COVID-19 pandemic. It identifies a number of investments and initiatives aimed at harnessing the innovations and lessons learnt during the COVID-19 pandemic to ensure the NSW economy is resilient and self-sufficient.

The initiatives outlined in the plan include:

– Investing $100 billion in a four-year infrastructure pipeline to drive employment growth.
– A Planning System Acceleration Program bringing forward immediate planning reforms to support productivity, investment and jobs by reducing the time taken to approve projects.
– Review of education and training programs to respond to skill shortages and focus on core competencies, as well as increased investment in schools.
– Adopting innovative digital models to facilitate seamless and easy interactions with government.
– Building a self-sufficient economy through supporting advanced manufacturing and local supply chains.
– Supporting national reforms to Federal-State relations to reduce overlap and regulation in cross-jurisdictional areas.

The project will contribute to the goals of the NSW COVID-19 Recovery Plan by providing continued hot-rolled steel flat products to support a variety of downstream manufacturing businesses. This will support the local manufacturing sector and maintain local supply chains. The CLIP will involve a capital investment of approximately $100 – $160 million which also provide ongoing employment opportunities during construction and operation, supporting a resilient and self-sustaining NSW economy.

4.4.4 State Infrastructure Strategy 2012 – 2032

The State Infrastructure Strategy (NSW Government 2018) is a 20-year infrastructure investment plan for the NSW Government that aims to place strategic fit and economic merit at the centre of investment decisions. The strategy assesses infrastructure problems and solutions, and provides recommendations to best grow the State's economy, enhance productivity and improve living standards for the NSW community.

The strategy focusses on investment in road, rail, ports, telecommunication, water, schools, hospitals, sports arenas and other local infrastructure as a means of achieving economic growth and improving living standards. Such infrastructure projects are steel intensive. The CLIP will support the aims of the strategy through providing a secure source of domestic steel to downstream manufacturers and the construction industry. Similarly, the State Infrastructure Strategy identifies a range of road, rail and port projects and priorities including ones which support the ongoing operation of the PKSW, an acknowledgement of the importance of its ongoing operation to the State.

4.4.5 Illawarra Shoalhaven Regional Plan

The Illawarra Shoalhaven Regional Plan (NSW Government 2015) is an overarching regional plan applying to the local government areas of Kiama, Shellharbour, Shoalhaven and Wollongong. The plan identifies key planning principles for the region, which include:

– Protecting land with high environmental value and recognising cultural heritage values
– Sustainable use of land and resources while building resilience to climate change
– Supporting a strong, resilient and diversified economy
– Supporting improvements to transport infrastructure including active, public and freight
– Provide for the balanced and orderly supply of land for housing development
– Increasing housing density around centres with access to jobs and transport
– Encourage urban design that reduces car dependency and promote energy efficiency
– Improving coordination on the delivery of infrastructure

The project is considered broadly consistent with these planning principles. The project will contribute to a strong, resilient and diversified economy and will have limited environmental impacts as it will be located within the existing PKSW site which has already been disturbed.

The project is consistent with the planning principles and supports the goals outlined in the Illawarra Shoalhaven Regional Plan 2041. Specifically, the project supports a strong, resilient and diversified economy in the Illawarra Shoalhaven region, supporting the delivery of infrastructure, and the objective of encouraging the growth of Port Kembla into an international trade hub through the upgrade of existing services and the construction of new facilities.

4.4.6 Wollongong 2028 — Community Strategic Plan

The Wollongong 2028 Community Strategic Plan outlines the community's main priorities and aspirations for the future and includes strategies for how to achieve them. The plan identifies a goal to have an innovative and sustainable economy to increase local employment opportunities and expand the profile of Wollongong as a regional city. The project will contribute to the sustainability of the local economy by enabling ongoing steel production to continue and will provide local employment opportunities during construction and operation. Ongoing operation of PKSW will also see continued support provided to community programs through BlueScope's community partners program.

4.4.7 NSW Freights and Ports Plan 2018-2033

The NSW Freights and Ports Plan 2018-2033 outlines the NSW Government and industry's need to boost the performance and utilisation of the State's existing roads, rail, ports, pipelines and airports. The plan includes over 70 initiatives to be delivered by 2033 with the following five key objectives: economic growth, efficiency, connectivity and access, capacity, safety, and sustainability. The CLIP supports the key objectives of the plan by supporting economic growth and creating a greater freight capacity for raw materials at Port Kembla. The use of a fixed machine with a rigid structure removes the risk of suspended loads and increases safety at the port.

4.5 Approval pathway and permissibility

4.5.1 Environmental Planning and Assessment Act 1979

The key legislation in NSW regulating the use of land is the *Environmental Planning and Assessment Act 1979* (EP&A Act) and *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The EP&A Act institutes a system for environmental planning and assessment, including approvals and environmental impact assessment requirements for proposed developments. The EP&A Act contains three key parts that impose requirements for planning approval. These include:

– Part 4, which provides for the assessment and determination of development that requires development consent from the local council, a regional planning panel or the NSW government for development which is classed as State Significant Development (SSD).
– Part 5 (Division 5.1), which provides for the environmental assessment of activities that do not require approval or development consent under Part 4.
– Part 5 (Division 5.2), which provides for the assessment and determination of State Significant Infrastructure (SSI) including critical SSI (CSSI).

The need or otherwise for consent for a new development is set out in environmental planning instruments (EPIs) as described below.

The project has been declared to be CSSI under Part 5, Division 5.2 of the EP&A Act. The Minister for Planning and Public Spaces is the approval authority and the project is to be assessed in accordance with the provisions of Division 5.2 of the EP&A Act.

4.5.2 Environmental planning instruments

State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) identifies development that is considered to be of state significance and includes provisions for SSD and SSI including CSSI. The SRD SEPP defines CSSI as development that is, in the opinion of the Minister for Planning, essential to the State for economic, environmental or social reasons. The project has been declared CSSI, and is listed in Schedule 5, clause 26, of the SRD SEPP as part of the Blast Furnace No. 6 Upgrade project.

Under Section 16 of the SRD SEPP, the project therefore:

a. *may be carried out without development consent under Part 4 of the EP&A Act, and*
b. *is declared to be State significant infrastructure for the purposes of the EP&A Act if it is not otherwise so declared, and*
c. *is declared to be critical State significant infrastructure for the purposes of the EP&A Act.*

4.5.3 Other environmental planning instruments

The project has been declared CSSI as identified above. Section 5.22(2) of the EP&A Act provides that environmental planning instruments do not apply to or in respect of SSI (including CSSI), except where they apply to the declaration of infrastructure as SSI or CSSI. While environmental planning instruments other than SEPP SRD therefore do not apply, the following instruments will be taken into consideration when assessing the potential impacts of the project.

State Environmental Planning Policy (Three Ports) 2013

State Environmental Planning Policy (Three Ports) 2013 (Three Ports SEPP) provides a planning regime for the development and delivery of infrastructure on land in Port Botany, Port Kembla and the Port of Newcastle.

The project falls within the Port Kembla land application map under the Three Ports SEPP and the project is located on land zoned IN3 Heavy Industrial and SP1 Special Activities. The SP1 zoning applies to the port facilities of Port Kembla. The project meets the definition of a heavy industry and port facilities in accordance with the Three Ports SEPP and is considered to be consistent with the objects of the land zoning.

While the project is permissible with consent under the provisions of the Three Ports SEPP, it has been declared CSSI and will therefore be assessed under Division 5.2 of the EP&A Act and can be undertaken without consent under Part 4 of the EP&A Act.

Draft State Environmental Planning Policy (Transport and infrastructure) 2021

It is noted that the NSW Government is proposing to consolidate a number of SEPPs, including the Three Ports SEPP into *State Environmental Planning Policy (Transport and infrastructure) 2021* (T&I SEPP). The gazettal date of the T&I SEPP is unknown however it is likely to come into effect during the assessment of this project. It is understood that the policy provisions currently contained in the Three Ports SEPP will be transferred to the T&I SEPP and applied consistency. Further detail in regard to the T&I SEPP will be provided in the EIS.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (SEPP 33) regulates, amongst other matters, the determination of development applications to carry out development for the purposes of a potentially hazardous industry or potentially offensive industry. A hazard and risk assessment will be undertaken as part of the EIS and include the assessment of potential hazards associated with the construction and operation of the project.

State Environmental Planning (Coastal Management) 2018

State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP) aims to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objectives of the Coastal Management Act 2016. The objectives of the Coastal Management SEPP are to manage development in the coastal zone and establish a framework for land use planning and decision making in the coastal zone.

The project is located within the coastal use and coastal environment zone mapped under the policy and therefore development consent would ordinarily be required. While the CSSI declaration overrides the need for consent under the Coastal Management SEPP, the EIS for the project will seek to demonstrate consistency with Clause 13 and Clause 14 of the SEPP, where practical, including consideration of the following principles:

– The development is designed, sited and will be managed to avoid adverse impacts, or
– If that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or
– If that impact cannot be minimised—the development will be managed to mitigate that impact.

For development within the coastal use area (other than development that is SSI or CSSI), the responsible authority has the additional obligation of taking into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development. The potential impacts of the project on the coastal environment will be considered when assessing the potential project impacts in the EIS.

State Environmental Planning Policy No 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55) provides for a state-wide planning approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.

The project represents a continuation of the existing industrial land use and the management of any contaminated land and the suitability of the site for the project will be considered in the EIS.

4.6 Other relevant legislation

4.6.1 NSW legislation

Protection of the Environment Operations Act 1997

An objective of the *Protection of the Environment Operations Act 1997* (POEO Act) is to protect, restore and enhance the quality of the environment, in recognition of the need to maintain ecologically sustainable development. The POEO Act provides for an integrated system of licensing and contains a core list of activities in Schedule 1 which require an Environment Protection Licence (EPL).

PKSW is operated under EPL 6092, which applies to a range of scheduled activities carried out at the site. This includes the existing scheduled activities at the BlueScope leased berths, shipping in bulk, which would continue to apply to the project. It is expected that this licence will be varied to incorporate any new and remove any discontinued scheduled activities associated with the project.

Section 5.24 of the EP&A Act provides that an EPL cannot be refused if it is necessary for carrying out an approved CSSI project and is consistent with the project approval.

Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (BC Act) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future. The BC Act lists threatened species, populations and ecological communities as well as critical habitat and key threatening processes to be considered when assessing an activity.

Under Section 7.9 of the BC Act an application to carry out SSI, including CSSI, is to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

The project will be unlikely to have a significant impact on any biodiversity values, or threatened species, populations or ecological communities, or their habitats, listed under the BC Act. Impacts to biodiversity will be assessed in the EIS as described in Section 5.3.2.

National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) provides for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places.

It is an offence under Section 86 of the NPW Act to harm or desecrate an object the person knows is an Aboriginal object. It is also a strict liability offence to harm an Aboriginal object or harm or desecrate an Aboriginal place, whether knowingly or unknowingly. Section 87 of the NPW Act provides a series of defences against the offences listed in Section 86 which includes if the harm was authorised by and conducted in accordance with the requirements of an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the NPW Act.

The project will be restricted to a highly disturbed industrial site of the existing PKSW and berths within Port Kembla. Potential impacts upon Aboriginal cultural heritage will be considered through a due diligence process in the EIS. Further, under section 5.23 of the EP&A Act, an AHIP permit under Section 90 of the NPW Act is not required for approved CSSI.

Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) is concerned with all aspects of heritage conservation ranging from basic protection against indiscriminate damage and demolition of buildings and sites, through to restoration and enhancement.

Heritage places and items of particular importance to the people of NSW are listed on the State Heritage Register. An application for approval under Section 59, Part 4 of the Heritage Act is required for any direct impacts on an item on the register. An application for a permit from the NSW Heritage Council under Section 139 of the Heritage Act is required to be made prior to disturbance or excavation likely to discover, expose, move, damage or destroy a relic.

The project is not expected to impact upon any identified heritage item or relic. Under section 5.23 of the EP&A Act, approval under Part 4 or an excavation permit under Section 139 of the Heritage Acy is not required for approved CSSI.

Ports and Maritime Administration Act 1995

The *Ports and Maritime Administration Act 1995* (Ports and Maritime Act) regulates the operation of ports in NSW across a range of matters including navigation, commercial operation and port charges that apply, management of port infrastructure, port safety and the functions of port corporations as well as Transport for NSW (TfNSW) in relation to port operations. The Ports and Maritime Act provides broad powers to port operators to regulate activities that may pose a risk to the safety or security of the port including but not limited to the movement of vehicles and the loading/unloading of material.

NSW Ports manages the berths in Port Kembla, while NSW Port Authority manages the navigation, security and operational safety needs of commercial shipping in the harbour. BlueScope will engage with NSW Ports and NSW Port Authority as appropriate throughout planning for, and the construction and operation of the project.

4.6.2 Commonwealth legislation

Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act is administered by the Commonwealth Department of Agriculture, Water and the Environment (DAWE) and provides a legal framework to protect and manage nationally important flora, fauna, ecological communities and heritage places defined as matters of national environmental significance (MNES). Part 9 of the EPBC Act provides that an action that has, will have or is likely to have a significant impact on MNES may not be undertaken without prior approval from the Commonwealth Environment Minister. Approval under the EPBC Act is also required for actions carried out by Commonwealth agencies or impacting on Commonwealth land.

A search using the Protected Matters Search Tool (PMST) with a 10 kilometre buffer from the proposal was undertaken on 28 August 2021. Table 4.1 provides a summary of the results.

An assessment of whether the project will have a significant impact on these MNES will be undertaken as part of the environmental assessment process, however, based on this review of MNES in proximity to the project, a referral to DAWE under the EPBC Act is not considered necessary.

Table 4.1 EPBC protected matters search results

Protected matter	Matter located within search radius	Comments	Potential impact
Matters of national environmental significance			
World Heritage Property	None	N/A	N/A
National Heritage Places	None	N/A	N/A
Wetlands of International Importance	None	N/A	N/A
Great Barrier Reef Marine Park	None	N/A	N/A
Commonwealth Marine Areas	1	No impact expected from project	
Threatened Ecological Communities	7	Discussed further in Section 5.3.2	
Threatened Species	95	Discussed further in Section 5.3.2	
Migratory species	76	Discussed further in Section 5.3.2	
Other matters			
Commonwealth Land	15	None occurring on site	N/A
Commonwealth Heritage Places	None	N/A	N/A
Marine Species	105	Discussed further in Section 5.3.2	
Whales and Other Cetaceans	14	Discussed further in Section 5.3.2	
Critical Habitats	None	N/A	N/A
Commonwealth Reserves Terrestrial	None	N/A	N/A
Australian Marine Parks	None	N/A	N/A

Native Title Act 1993

The objectives of the *Native Title Act 1993* (Native Title Act) are to:

– Recognise native title rights and set down basic principles in relation to native title in Australia.
– Provide for the validation of past acts and intermediate periods acts, which may be invalid because of the existence of native title.
– Provide for a future regime in which native title rights are protected and conditions imposed on acts affecting native title land and waters.
– Provide a process by which native title rights can be established and compensation determined, and by which determinations can be made as to whether future grants can be made or acts done over native title land and waters.
– Provide for a range of other matters, including the establishment of a National Aboriginal and Torres Strait Islander Land Fund.

Under the Native Title Act, the valid grant of a freehold estate on or before 23 December 1996 is known as a 'previous exclusive possession act'. This means that native title has been extinguished over the area and native title claimants cannot include this land in their applications.

The project is located on freehold land owned by BlueScope as well as land leased or licensed from NSW Ports. All of it is highly disturbed and has been the site of industrial activities for many decades. It is considered unlikely that native title would have survived even on the leased or licensed land; to the extent that it may have survived, the acts which will be undertaken as part of the project will not impact native title rights in any way additional to the impacts which have already arisen as a result of that disturbance and the past and present industrial use of the land.

5. Matters and impacts

5.1 Overview

The identification of issues to be addressed in the EIS has been undertaken through a risk based and consultative approach in accordance with the *State significant infrastructure guidelines – preparing a scoping report* and the *Social Impact Assessment Guideline For State Significant Projects* (DPIE, 2021b). Key potential issues are those environmental aspects that will require project specific assessments to assess the potential impacts and develop measures to avoid, mitigate and/or offset those impacts, where necessary. The key assessment issues were identified with consideration of a range of factors including:

– The existing environmental context of the project and its surrounding locality (see Section 2.1)
– The proposed project activities (see Section 3)
– The regulatory framework applicable to the project (see Section 4)
– The outcomes of consultation undertaken with the community and other relevant stakeholders (see Section 6)
– The project team's experience from previous environmental approvals for projects in NSW

Key issues and the proposed level and scope of assessments were documented using DPIE's Scoping Worksheet, a copy of which is provided in Appendix A. In accordance with the Scoping Worksheet, each issue has been categorised as either a 'Key' issue, 'Other' issue, or 'Scoping only' issue. Further details regarding the identified issues and the proposed level and scope of assessment are presented in the following sections.

5.2 Key issues for inclusion in EIS

Described below are the key matters and impacts proposed for detailed consideration in the EIS. This includes those that are of particular concern to the community and other stakeholders. For each relevant matter, further details of the baseline conditions and proposed assessment methodology are provided.

5.2.1 Hazard and risk

Existing environment

The project is located within an industrial precinct, with existing hazardous or potentially hazardous activities currently being undertaken as part of operations at PKSW and the wider Port. The potential hazards or activities from which hazards may arise include:

– Storage and transportation of dangerous goods, hazardous substances and chemicals
– Mechanical failures due to degradation or failure of mechanical systems
– Vessel strike for shipping and berth operations
– Vehicle movements within PKSW

Potential impacts

Materials required to complete the project are generally benign and are not expected to generate hazards other than those of the kind generated by current site activities, though there may be some exceptions due to specific requirements of construction.

Additional hazards may be generated during operation in relation to the increased number and size of vessels utilising the BlueScope leased berths in Port Kembla, such as increased potential for ship collision. It is expected that existing procedures used to manage such risks during port operations will be implemented and adapted where necessary to manage such risks.

During operation the project will generate additional truck movements within the PKSW site to transport imported coal from the Berths to the Cokemaking area. These additional truck movements have the potential to generate hazards and risks such as vehicle collisions that could result in injury to personnel. Truck movements will be generally consistent with existing activities at PKSW and traffic management procedures will be implemented to manage the associated hazards and risks.

Proposed assessment approach

An initial risk screening will be undertaken using criteria and guidance in DPIE's *Applying SEPP 33* (DPIE 2011b), to confirm whether the project is classified as potentially hazardous, requiring a preliminary hazard analysis (PHA) and if so, the level of assessment required. The screening criteria relate to factors such as the types and quantities of hazardous materials to be stored on-site, how and where they will be stored, and the anticipated frequency of road movements of this material to and from the site.

If a PHA is required, it will be conducted in accordance with SEPP 33 requirements, following relevant DPIE guidance. The PHA will identify potential hazards associated with the project and estimate the likelihood and consequences of them occurring, taking into account BlueScope's proposed controls. This information will then be reviewed to assess the level of off-site risk to people, property and the environment.

Additional risk mitigation measures will be incorporated into the project design if required.

5.2.2 Air quality

Existing environment

Local meteorological data was obtained from the Port Kembla Signal Station located in Port Kembla (BoM, 2021a).

Mean monthly maximum temperatures range between 16.7 °C in July to 24.4 °C in February. Mean monthly minimum temperatures range between 9.8 °C in July to 18.7 °C in February. Autumn and spring are generally mild with sporadic temperature fluctuations.

Mean monthly rainfall in the area ranges between 183.7 millimetres (mm) in March to 55.0 mm in September, with most of the mean annual 1260.6 mm of rainfall occurring between October and March.

Mean monthly wind speeds are typically greater in summer and spring, ranging from 19.7 kilometres per hour (km/h) in October to 14.7 km/h in March and April. Winds are predominantly from the south, south west and west in the morning, and predominantly from the north east and south in the afternoon.

A wide range of anthropogenic sources currently impact the air quality in the area, including industrial operations surrounding the site, shipping and logistics operations, quarries and coal storage. Windblown dust is also expected to be present from on-site and off-site sources. Natural attenuators of air quality include the sea breeze which is prevalent in the afternoons.

The existing berths at the site are responsible for dust and emission from vessels and other equipment that impact local air quality. The nearest residential receivers are located approximately 1.5 km to the west of the project site.

Potential impacts

Potential air quality impacts from the project will result from emissions associated with a variety of activities during construction and operation.

During construction, the local air quality could potentially be impacted as a result of dust generation from materials handling, and machinery and truck movements. Additionally, construction traffic and machinery will generate exhaust emissions.

During operation, the stockpiling of materials and dust generated from machinery and truck movements could potentially impact on the local air quality. Trucks and machinery operating within the site will also generate exhaust emissions.

Proposed assessment approach

Construction air quality impacts will be assessed qualitatively and will largely be limited to dust generated from machinery movement and ground disturbance and vehicle emissions.

An operational air quality impact assessment in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016) will be undertaken as part of the EIS to assess potential impacts on nearby sensitive receptors. The assessment will include:

– Review of project information related to sources of air emissions accounting for construction and operation.
– Defining the existing air quality environment at the site, including the identification of sensitive receivers.
– Identification of all likely sources of air pollution.
– Preparation of dispersion models for current and proposed activities at the site, including comparison against EPA criteria.
– Quantification of potential impacts.
– Recommendations on mitigation and management strategies.

5.2.3 Noise and vibration

Existing environment

The ambient noise environment in the vicinity of the project is expected to be influenced by operational activities at PKSW and surrounding industrial activities. Traffic noise from local road and rail transportation will also be present.

The nearest residential receivers are located approximately 1.5 km to the west of the project site.

Potential impacts

During construction, the project has the potential to generate noise emissions from a variety of sources, including as a result of the following:

– Installation of the SU
– Relocation of the existing coke loader to Berth 113
– Activities associated with the upgrade of Berth 111
– Delivery, unloading, storage and loading of materials and waste
– Movement of heavy vehicles to and from the project site
– Construction traffic on local roads
– Piling activities.

During operation, the project has the potential to generate noise emissions from sources including:

– The proposed SU
– Movement of heavy vehicles within the project site

The project proposes the continued utilisation of berths in an existing industrial site. While specific items of equipment and locations of noise source may change, operational noise impacts are expected to be generally consistent with existing conditions.

Proposed assessment approach

A noise and vibration impact assessment will be prepared for the EIS with regard to the *Noise Policy for Industry* (EPA, 2017), *Interim Construction Noise Guideline* (DECC, 2009) and *Road Noise Policy* (DECCW, 2011), including the following tasks:

– Review of background information to inform the assessment including meteorological data
– Establish background noise levels
– Development of a noise model for the berth including identification of additional noise sources
– Identification of noise trigger levels and criteria for assessment
– Identification of the likely noise and vibration impacts from construction and operational activities
– Undertake an assessment of traffic noise impacts with consideration to the relevant guidelines
– Identification of noise management strategies and mitigation measures, as required

5.2.4 Water quality

Existing environment

The project is located within Port Kembla Harbour and Tom Thumb Lagoon. Two natural water courses drain into the harbour, namely Main Drain and Allans Creek. Allans Creek is the predominant source of freshwater inflow into Port Kembla Harbour, with a catchment area of 41 km^2. Industrial activities (including PKSW) discharge water into the creek. The majority of the water discharged from PKSW is saltwater that has been used for indirect cooling. Industrial discharges are of sufficient volume that they have the potential to impact upon water quality and water volume in the creek. Discharge waters are slightly warmer and less dense that the receiving waters found in the Harbour.

There are also several constructed drains servicing the PKSW site, which drain into Allans Creek and the Harbour. The site is relatively flat and four to six metres above sea level. PKSW is located above the 1 per cent AEP level.

Stormwater management is undertaken across the PKSW site, including the BlueScope leased berths, in accordance with EPL 6092.

Groundwater beneath the site generally flows towards Tom Thumb Lagoon and Allans Creek. Groundwater recharge is generally from infiltration of rainfall and groundwater flow from up hydraulic gradient areas to the north west and south west of the site. Previous studies have indicated that on site groundwater has elevated concentrations of heavy metals, organic and inorganic contaminates above the relevant screening criteria (Senversa, 2019 and JBS&G, 2016).

Potential impacts

Construction activities may mobilise sediment into the constructed drains on site, with the potential to impact water quality in receiving waters. Spills of hydrocarbons and other chemicals from construction plant and machinery may also negatively impact the surface water quality of the surrounding area.

During operation of the project, water will continue to be discharged to the harbour through licenced discharge points from PKSW. The project may require modifications to existing stormwater management features within the Berths, however it is anticipated the discharges will be generally consistent with existing operations.

Excavation will be required across various parts of the construction site, in particular the extension of the crane track to Berth 113 and the installation of the truck loading bin at the old No.4 Blast Furnace area. Excavations are anticipated to be required to depths of 3m – 4m below existing ground level. These works are unlikely to encounter groundwater however there may be ingress of salt water during high tides depending on the final depth of excavation.

Proposed assessment methodology

A water quality impact assessment will be undertaken as part of the EIS to assess potential impacts on surface water. This assessment will be prepared in accordance with the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZG, 2018) and guidelines set by the NSW Marine Water Quality Objectives in NSW (DEC, 2006). The assessment will include:

– Background information regarding the site and a review of existing monitoring and hydrodynamic modelling data.
– Assessment of the impact of undertaking the project, including an assessment of the existing and expected performance of the project against relevant criteria.
– Identification of management strategies and mitigation measures, as required.

5.3 Other environmental impacts

5.3.1 Traffic and transport

Existing environment

Road traffic

PKSW is strategically located within the regional road network, with good connectivity to road and rail links to major cities within NSW. There are six main roads servicing PKSW:

– Princes Motorway (M1) – this is the main arterial road through the Illawarra region. This road runs in a north-south direction. A large amount of traffic travelling to and from Port Kembla uses this route.
– The Princes Highway (A48) – The Princes Highway links Port Kembla to Sydney. This road passes through commercial and residential areas.
– Springhill Road (B65) – Forms part of the road link between the Wollongong CBD and the southern areas of Shellharbour and Port Kembla.
– Five Islands Road (B65) – runs in an east – west direction and provides connections to several other main roads in the area.
– Masters Road – connects Springhill Road to the Princes Motorway.

Traffic associated with PKSW enters the site via Springhill Road, Five Islands Road, Christy Drive and Flinders Street. From here, vehicles use private internal roads to access specific sites within PKSW. Designated parking areas are located on site.

Traffic volumes were recorded in 2018 along Five Islands Road, east of its intersection with Springhill Road. On average, there were 41,534 vehicle movements along this road per day. Heavy vehicles made up 11.14 per cent of these movements (TfNSW, 2021).

PKSW can be accessed by rail lines from the north (Sydney), south coast and west. PKSW also has direct port access for the import of raw materials such as iron ore and metallurgical coal. The port also provides access to export markets for and finished products.

Shipping

The Port Authority of NSW is responsible for the management of shipping operations in Port Kembla, including the provision of Harbour Master functions, pilotage, navigation services and ship scheduling.

The port has a deep-water shipping channel that can accommodate vessels with ship length of up to 311 metres and has capacity for Cape size vessels. Pilotage is compulsory for vessels over 30 metres in length.

Passage from Port Kembla's Outer Harbour to the Inner Harbour requires navigating through a relatively narrow channel known as The Cut and in close proximity to other berthed vessels. After arriving through the entrance, a 90 degree turn is required to pass through The Cut into the Inner Harbour. A vessel speed of at least 2.5 knots through The Cut is required to maintain vessel steerage. Ship-to-ship interactions can occur between transiting and berthed vessels depending on vessel speed and proximity.

The channel is well marked with navigational buoys, sector lights and leading marks.

Approximately 800 to 900 vessels enter Port Kembla per year, of which 80 to 100 are generated by BlueScope's operations.

Potential impacts

Construction of the project will require materials and equipment to be transported to the project site by road. This is expected to increase the amount of heavy vehicle movements on local roads. Construction will also generate light vehicle traffic associated with the construction workforce. Impacts will be greatest during morning and afternoon peak times. It is not expected that traffic volumes will be in excess of the capacity of the existing road network. Construction traffic will utilise private roads once in PKSW.

During operation, the project will involve an increase in heavy vehicle movements within the PKSW site. However, the project is not expected to generate additional traffic on the surrounding road network when compared to current operations.

Construction activities will see the generation of a single heavy lift ship movement associated with the import of the ship unloader that will be prefabricated offsite.

It is estimated that the project will result in an additional 15 ships utilising the berths per year in addition to the 80 to 100 ships currently generated by PKSW's operations.

Proposed assessment methodology

Traffic and transport impacts will be assessed in the EIS including:

– Predicted number of heavy and light vehicles during construction
– Identification and assessment of potential impacts to the surrounding road network
– Identification and assessment of potential impacts to shipping traffic within Port Kembla
– Identification of management strategies and mitigation measures, as required

5.3.2 Biodiversity

Existing environment

A search of the DPIE BioNet Atlas for records of threatened species listed under the BC Act and EPBC Act (DPIE, 2021b) was undertaken on 31 August 2021. Threatened species previously recorded within 10 km of the project site are listed in Appendix B. PKSW is a highly disturbed environment with minimal vegetation and retains limited biodiversity value. Vegetation present around the site is dominated by planted species or opportunistic weeds. The waterways surrounding the site are mapped as Key Fish Habitat.

A review of the Atlas of Groundwater Dependent Ecosystems (BOM, 2021b) indicated that no known groundwater dependant ecosystems (GDEs) have been identified within the project site.

The Port Kembla Inner Harbour is a marine environment that contains several shipping berths and facilitates a wide variety of industrial activities. These activities have led to the contamination of marine sediments and waters. Habitat within the Inner Harbour is comprised of hard substrates such as break walls, piles, and quay walls. The seabed is comprised of soft sediment and is lacking in seagrass communities. Biofouling communities previously identified within the area are oysters, gastropods, ascidians, tubeworms and bryozoans. The Inner Harbour also supports various fish species and is mapped as Key Fish Habitat (GHD, 2018).

Potential impacts

The project is located within a highly modified industrial setting and retains limited biodiversity values. Impacts to native vegetation are not anticipated and fauna habitat at the project site is expected to be limited.

Green and Golden Bell Frog (*Litoria aurea*) have been recorded within the southern area of the PKSW site and the species is known to inhabit highly disturbed areas. The nearest records of this species are approximately 1 km from the project site. It is therefore expected that impacts to this species as a result of the project are unlikely.

Listed threatened or migratory bird species have also been recorded in the vicinity of the project site and may visit the site temporarily. Given the disturbed nature of the project site and lack of suitable habitat, any such species are unlikely to be permanently present and are not expected to be impacted by the project.

Numerous aquatic species have been recorded within 10 km of the project site. The marine environment is unlikely to be directly impacted during construction as mitigation measures will be implemented to prevent sediment or contaminants entering waterways. During operation, discharges to the harbour are expected to be generally consistent with current operations and therefore impacts to aquatic species are not anticipated.

Proposed assessment methodology

Under Section 7.9 of the BC Act, an application to carry out SSI is to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. As discussed above, it is considered that the project is unlikely to have a significant impact on biodiversity values and BlueScope seeks confirmation that preparation of a BDAR is not required. This Scoping Report will be accompanied by a BDAR waiver request.

The EIS will include an assessment of biodiversity impacts based on review of existing literature and databases, including:

– Identification of the fauna likely to be located within the project site.
– Assessment of potential impacts on State and Commonwealth listed terrestrial and aquatic species, populations, ecological communities or their habitats.
– Identify measures that will be implemented to mitigate the impacts of the project on species, populations, ecological communities and their habitats (if applicable).

5.3.3 Historic heritage

Existing environment

The following sources were searched on 27 August 2021 to identify any historic heritage items located within or near the project site:

– Australian Heritage Database
– NSW Heritage Register
– Wollongong LEP 2009
– Three Ports SEPP

These searches returned no identified historic heritage items within the project site. An item known as the Galloway Steam Engine is located on the PKSW site and is a registered item with the National Trust of Australia. This item is located within a building on the PKSW site that will not be impacted by the project.

The nearest historic heritage items are the locally listed Commonwealth Rolling Mills and the Hill 60 Illowra Battery Landscape Area including Hill 60, Fisherman's Beach, Boilers Point and MM Beach listed on the State heritage register and located approximately 1.7 km to the south of the project site. Hill 60 and its environs is listed as containing a rare suite of Aboriginal heritage sites which demonstrate the evolving pattern of Aboriginal cultural history and the Aboriginal land rights struggle. These Aboriginal heritage sites are not expected to be impacted by the project.

Potential impacts

As no historic heritage items were identified within the project site, the project is not expected to impact on historic heritage. Listed sites located to the south of the site will not be impacted by the project.

Proposed assessment methodology

A desktop assessment of potential impacts to historic heritage will be included in the EIS.

5.3.4 Aboriginal heritage

Existing environment

The project site is located within the administrative boundaries of the Illawarra Local Aboriginal Land Council (LALC). The entire PKSW, including the BlueScope leased berths, has been subject to heavy disturbance from the initial construction of PKSW starting in 1928 and production beginning in 1929. The project site is wholly within this heavily disturbed area.

A preliminary search of the DPIE Aboriginal Heritage Information System (AHIMS) for the project site was undertaken on 20 August 2021. No listed Aboriginal heritage items have been recorded on the PKSW site. The search identified one site within 200 m of the overall PKSW site and approximately 1.6 km from the project site.

As identified in Section 5.3.3, Hill 60 Illowra Battery Landscape Area is located approximately 1.7 kilometres south east of the project site and contains a rare suite of Aboriginal heritage sites. The area includes a number of AHIMS sites, including artefact (52-2-2203), shell (52-2-1290) and midden and artefact (52-2-4502).

Potential impacts

The site is highly disturbed and located on land underlain by introduced fill, and therefore the likelihood of occurrence of Aboriginal items is considered low.

Proposed assessment methodology

Due to the highly disturbed nature of the site, an Aboriginal Cultural Heritage Assessment Report (ACHAR) is not considered necessary and a due diligence approach will be taken. As part of the due diligence assessment, consultation will be undertaken with the LALC. The EIS will include a desktop assessment of potential impacts to Aboriginal Heritage in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW, 2010). The EIS will also outline methods to mitigate impacts to Aboriginal items if any unexpected finds occur.

5.3.5 Soils, geology and contamination

Existing environment

Soils and geology

A search of the DPIE eSpade soil and land information database was undertaken on 23 August 2021 (DPIE, 2021a). The project site is mapped as Disturbed Terrain soil landscape (9029xx) occurring within other landscapes. The project site is underlain by artificial fill, including dredged sand and mud, rocks, and local soil materials. Demolition rubble, industrial and household waste are also present under the project site. The site is not undermined. The bedrock is exposed on some parts of the project site. The site is generally void of soil and covered in hard, impervious bitumen surfaces. Any remaining soil or sediments present on the site are highly disturbed thin coverings overlying fill material. Key limitations of the disturbed soils are mass movement hazards, subsidence, and impermeable soils.

As the terrain contains filled areas resulting from the reclamation of Tom Thumb Lagoon, which is mapped as having a high probability of acid sulphate bottom sediments, there is a low probability that some acid sulphate soil material may be present below the layers of fill at the project site.

Contamination

A search of contaminated land records and records of sites notified to the EPA was conducted on 23 August 2021. PKSW is listed as a contaminated site by the EPA. The site has had four notices issued, the last being in March 2018, which was a notification to cease the Voluntary Management Plan for the site on the basis that regulation of the site under the *Contaminated Land Management Act 1997* (CLM Act) was no longer warranted. Ongoing management of site contamination occurs under EPL 6092.

Potential impacts

During construction, there may be some limited disturbance of the soil. Activities such as the movement of plant and machinery over exposed surfaces may lead to erosion and compaction of fill within the area. There is also potential to encounter contaminated soils during excavations. Any soil stockpiled or exposed soil will also be prone to wind and water erosion. As most of the project site is a sealed surface, the extent of soil exposure and disturbance is expected to be low. Acid sulphate soils are unlikely to be encountered, given the site is situated on fill material and excavation locations are limited to a few specific locations.

There is potential for further contamination of soils during construction due to spills of hydrocarbons and other chemicals.

Proposed assessment methodology

Assessment of impacts to soils will be included as part of the EIS and will include:

– Assessment of the existing soils by utilising available regional mapping and existing site specific data gained from environmental investigations.
– Identification of potential sources of contaminants.
– Assessment of potential erosion and sedimentation impacts from the project.
– Identification of proposed sediment and erosion controls for the project.
– Identification of any other necessary mitigation measures.
– Recommend measures to be implemented during construction to manage identified contamination risks.

5.3.6 Landscape character and visual impact assessment

Existing environment

The project site is located within PKSW and Port Kembla, which is an industrial area adjacent to Tom Thumb Lagoon and Port Kembla Harbour. PKSW is located next to other industrial developments such as grain and coal export, manufacturing premises and truck depots. The nearest residential development is approximately 1.5 km to the west of the project site.

PKSW consists of a variety of open-structure plants, exhaust stacks, equipment, operational buildings, storage areas, internal roads and storage tanks. There are also two canals, Allans Creek and Main Drain, that are located within the PKSW site. The project site is characterised by existing ship unloading facilities and material handling infrastructure. PKSW is visible from distant public vantage points, such as local lookouts and highways, as well as from the surrounding residential areas and arterial roads. The project site is less visible from these areas, being shielded by the taller features of the PKSW site.

Potential impacts

During construction of the project, views of the project site will be temporarily altered with the presence of construction plant and associated facilities. Given the context of the surrounding industrial area, construction plant and associated facilities will have a negligible impact on the visual amenity of the site. During operation, the presence of the new SU and change in location of the coke loader will be insignificant compared to the current surrounding operations and consistent with the pre-existing visual landscape.

Proposed assessment methodology

The EIS will provide a qualitative assessment to consider the impact of the project on visual amenity during construction and operation.

5.3.7 Social and economic

Existing environment

The project is located within the Wollongong LGA, which recorded a population of 139,580 in 2020, of which 17 per cent was children under 14 and 16.5 per cent was adults over 65. 0.2 per cent of the population identified as Aboriginal and/or Torres Strait Islander. The median weekly household income was $878 and the most common industries of employment were hospitals, higher education and aged care residential services (ABS, 2016a).

PKSW is located in the suburb of Port Kembla, which is approximately 2.5 km south of the City of Wollongong. The population of Port Kembla was recorded as 5,014 in the 2016 census. This comprised 1,303 families, with an average of 1.8 children per family (for families with children). Children aged 0 - 14 made up 16.6 per cent of the population and adults over 65 made up 20.2 per cent of the population. 3.7 per cent of the population identified as Aboriginal and/or Torres Strait Islander. The median weekly household income was $1,016 and the most common industries of employment were hospitals, iron smelting and steel manufacturing, cement grinding and building and industrial cleaning services (ABS, 2016b).

The key economic metrics for the Wollongong LGA (idcommunity, 2020) are summarised in Table 5.1.

Table 5.1 Community statistics

Key statistics	Value
Gross regional product	$12.15 billion
Residents	218,114
Employed residents	103,797
Unemployment rate (2016)	6.9%
Local businesses	13,887
Largest industry (by employment)	Health care and social assistance
Value of primary metal and metal product manufacturing (2018/19)	$1,762 million
Population forecast	220,598 (2020) 254,805 (2036)

Potential impacts

The project will secure continued operation of PKSW into the future, ensuring the continued ironmaking and manufacturing of flat steel products in NSW and supply of approximately 2 million tonnes of these products used in a range of infrastructure and construction activities of key importance to the NSW economy.

The operation of PKSW into the future will enable the continued significant contribution which it makes to the economy, including about $6.5 billion or 24 per cent of regional output per annum. As part of the broader 6BF reline, the project will enable continued operation of PKSW beyond 2026, and facilitate the retention of approximately 4,500 jobs at the site itself (both BlueScope employees and full-time contractors on the site) and support in the order of 10,000 skilled jobs in total in the Illawarra region and across NSW.

The project may have some negative socio-economic impacts during construction, such as amenity impacts resulting from potential noise (Section 5.2.3), air quality (Section 5.2.2), and traffic (Section 5.3.1) impacts, however these are expected to be temporary and relatively minor.

Proposed assessment methodology

A Social Impact Assessment (SIA) will be conducted in accordance with the *Social Impact Assessment Guideline For State Significant Projects* (DPIE, 2021b) as part of the EIS. With reference to the Appendix C of the Technical Supplement to the *Social Impact Assessment Guideline For State Significant Projects* (DPIE, 2021b), based on the expected minor social impacts of the project identified above, the level of assessment to be undertaken as part of the EIS will be “minor”.

5.3.8 Land use and property

Existing environment

The project will be partially located within Lot 1 DP606434, which is part of the PKSW site, owned by BlueScope. The remainder of the project will be located predominantly within Lot 72 DP1182824, with a very small component of the work to be carried out on Lot 71 DP1182824. Both lots 72 and 71 are the subject of 99 year leases from the NSW Government to NSW Ports; Lot 72 is in turn leased to BlueScope pursuant to leases from NSW Ports. The relevant part of Lot 71 DP1182824 is subject to a monthly licence between NSW Ports and BlueScope.

The PKSW site (Lot 1 DP606434) is zoned IN3 – Heavy Industrial. PKSW is the largest site in the Port Kembla industrial area, occupying approximately 750 ha and is mostly built around the western and northern side of Port Kembla's Inner Harbour. The PKSW site is a multiuse industrial area which includes storage, manufacturing, port berths, private internal roads and offices. The site is located near a wide variety of other industrial developments.

The port of Port Kembla is located to the east of Port Kembla heavy industrial area and is zoned SP1 – Special Activities. The Inner Harbour, specifically developed as an all-weather shipping port, covers approximately 60 ha with around 2,900 m of commercial shipping berths. BlueScope operates five berths in the Inner Harbour.

The area surrounding Port Kembla industrial area is primarily occupied by residential development. These urban areas provide small and large-scale retail outlets, community services (e.g. medical facilities, hospital, schools and sporting facilities) and commercial facilities (e.g. banking and post office). The closest urban developments to PKSW are the suburbs of Cringila, Berkeley, Lake Heights, Warrawong and Port Kembla to the south, Unanderra, Cobblers Hill, Mount St Thomas, Coniston and Figtree to the north and west.

Potential impacts

The project will be consistent with the industrial land use of the site, enabling steel making activities to continue within PKSW and facilitate continued ship unloading activities within the existing BlueScope leased berths. No change to existing land use is expected.

For that part of the project which will take place on Lot 72 DP 118284, BlueScope will ensure compliance with its leases from NSW Ports. In relation to the small section of Lot 71 DP 1182824 which is required to accommodate the relocation of the ship refuelling line as part of the track extension for Berth 113, investigations in relation to the necessary land use rights are ongoing, Otherwise, no land acquisition or new easements are required to complete the project.

Proposed assessment methodology

The EIS will include discussion of the potential land use impacts as a result of the project.

5.3.9 Greenhouse Gas and Energy

Existing environment

Iron and steelmaking via the BF-BOF technology route, as is used at PKSW, results in the production of greenhouse gases (GHG), including CO, CO_2 and oxides of nitrogen (NO_x). These GHG emissions are an unavoidable consequence of the chemical reactions which are critical to current primary steel making methods. Currently more than 70 per cent of the world's steel is produced using this technology.

BlueScope reports annually on its total Australian net energy consumption and GHG emissions to the National Greenhouse and Energy Reporting Scheme (NGERS). PKSW emitted a total of 6,868,848 tonnes of carbon dioxide equivalent (CO_2e) in the 2021 financial year. The dominant source of GHG emissions from PKSW is the use of metallurgical coal in the iron and steelmaking process, contributing approximately 92 per cent of total GHG emissions from PKSW.

Since 2005, the emissions intensity of BSL's Australian operations has fallen substantively and BSL projects a 48 per cent reduction by 2030, inclusive of decarbonisation projects and plans associated with the reline of 6BF.

Shipping activities at the BlueScope leased berths produce GHG emissions through the use of electricity to power the existing ship unloaders and through fuel consumption by vessels and other equipment required in unloading activities.

In its recently published Climate Action Report, BSL outlined its strategy and plans to address the decarbonisation challenge across its global operations. The report articulates BSL's commitment to medium-term (2030) targets and a longer-term net zero by 2050 goal that covers both scope 1 and 2 GHG emissions across its global operations. Achieving the 2050 net zero goal is highly dependent on several enablers, including the availability of affordable and reliable renewable energy and hydrogen, the availability of quality raw materials, appropriate public policy settings, and the commerciality of breakthrough technologies.

While breakthrough technologies are in the process of commercialisation, BlueScope's focus is on improving the emissions intensity of its existing infrastructure. Opportunities include optimising raw material mixes, capturing and reusing a greater proportion of waste heat and gases, and potentially replacing a proportion of the metallurgical coal currently used in the blast furnace process with alternative reductants such as hydrogen and biochar. Increased rates of scrap steel use and increased update of renewable energy to reduce or eliminate scope 2 emissions are also key focus areas.

Potential impacts

Construction of the project will generate GHG emissions through the use of plant and vehicles. This increase in GHG emissions will be minor and temporary.

During operation, scope 2 GHG emissions (electricity) are expected to increase slightly with the addition of the SU, which will require additional electricity consumption. However, any increase will be immaterial and will be addressed as part of PKSW's overall emissions reduction strategy and commitment to increase the uptake of renewable electricity supply. The minor increase in shipping vessels will also generate additional scope 3 GHG emissions through vessel fuel consumption. These increases will be offset at least in part by decreased emissions from rail transport of material from South32's mines to PKSW.

The project will facilitate the more frequent unloading of larger Cape class and fully loaded Panamax sized ships. Due to their larger hold capacity (relative to partially-loaded or shallower draft Panamax or Handysize ships), Cape class and fully-loaded Panamax vessels improve berth utilisation through economies of scale. Larger vessel sizes mean the same amount of cargo can be delivered in fewer trips leading to economies of scale and reduced GHG generation, compared to more frequent trips and more total kilometres travelled from multiple smaller ship movements.

Proposed assessment methodology

The EIS will include consideration of the potential GHG emissions of the project.

5.3.10 Waste management

Existing environment

The operation of PKSW generates waste that is managed under Waste Management Plans and in accordance with EPL 6092.

A range of waste streams generated onsite are treated, processed or disposed of at the premises in accordance with EPL 6092 including:

– Scrap metal processing
– Storage of other types of waste
– General waste recovery
– Recovery of waste tyres.

Waste generation from the current ship unloading infrastructure includes waste materials generated from regular maintenance activities such as scrap metal and parts. Any materials which come off conveyors such as at transfer points are collected and returned to stockpiles.

Potential impacts

Construction of the project will generate various waste materials which will be classified in accordance with the EPA waste classification guidelines (EPA, 2014).

Excavation will also be required to complete the project. As discussed in Section 5.3.5, previous investigations of the project site have found that the soil contains elevated levels of heavy metals. If spoil is required to be removed from the project site, it will be required to be validated prior to disposal.

Materials generated through the project will be recovered and recycled where practical.

The project will also generate general construction waste including packaging, domestic waste, redundant erosion and sediment controls, sewage and dunnage from the import of the SU. During operation, waste streams are expected to be generally consistent with existing operating conditions.

Proposed assessment methodology

The EIS will assess the predicted waste generation impacts of the project, including:

– Classification of wastes and an estimate of the quantity of each waste classification.
– Identification of waste handling procedures, management measures and waste minimisation and reuse opportunities.

5.3.11 Utilities and services

Existing environment

PKSW and the BlueScope leased berths are located in an established industrial precinct and operating port that are provided with internal electricity, water and gas services.

Potential impacts

The project may require relocation of existing connecting points within the PKSW site, along with works to connect and upgrade the connection points for the new SU and coke loader relocation.

As the project will be contained almost entirely within the PKSW site and BlueScope leased berths, impacts to public utilities or services are not anticipated.

Proposed assessment methodology

The EIS will consider any impacts to utilities and services as a result of the project.

5.4 Scoping only issues

A number of project matters have been classified as ‘Scoping only’ issues during the scoping process. These matters were considered during scoping, but it was concluded, for various reasons, that the proposed project activities are unlikely to have any significant impacts on them. BlueScope does not propose to investigate these matters further in the EIS. A brief summary of each of the identified ‘Scoping only’ issues, and a justification as to why further investigation is not warranted, is presented as follows:

5.4.1 Microclimate

Due to its relative scale and the fact that the majority of works are upgrading existing infrastructure, there is limited potential for the project to influence microclimate. The project does not propose large-scale vegetation clearing, extensive landform changes, or the establishment of large water bodies that may influence local climatic conditions. Ongoing operations will be consistent with current operations. As such, a detailed assessment of the project’s potential to influence microclimate is not considered warranted.

5.4.2 Public domain and other built assets

As the project will be almost entirely contained within the PKSW site and BlueScope leased berths, there is minimal potential for impacts to public spaces which provide opportunities for recreation and other community activities. Similarly, no impacts to public structures or infrastructure are considered likely. A detailed assessment of the project's impacts on the public domain and other built assets is not considered warranted.

5.4.3 Soil chemistry, stability, structure and land capability

The project will be located within an existing industrial site generally devoid of soil and covered in hard, previously disturbed impervious bitumen surfaces. Impacts to soil chemistry, stability, structure and land capability will likely be negligible and further detailed assessment as part of the EIS is not considered warranted.

5.4.4 Coastal hazards

The project is not located within an area that is susceptible to shoreline recession or coastal inundation, as it is within the operating areas of Port Kembla, which comprise constructed shipping berths and other built infrastructure designed to withstand coastal hazards. A detailed assessment of coastal hazards is not considered warranted.

5.4.5 Bushfire

The project will be located within an existing industrial site with minimal vegetation within or near the site. As such the potential for the project to influence or be impacted by bushfire is considered negligible and a detailed assessment is not considered warranted.

5.4.6 Undermining and steep slopes

The project site is not undermined and does not contain steep slopes, therefore a detailed assessment of these risks is not considered warranted.

5.5 Cumulative impacts

Existing environment

A search of the major projects register was undertaken on the 30 August 2021 to identify other major projects that may contribute to cumulative impacts. A search was completed for the Wollongong LGA, which identified the following projects that were deemed SSD or SSI within 10 km of the project site:

- Port Kembla Resource Recovery Facility (SSD-6494) – prepare EIS
- UOW - Western Building (Arts & Social Sciences) (SSD-8596) – recommendation
- Dendrobium Mine Extension Project (SSD-8194) – refused by Independent Planning Commission
- Port Kembla Coal Terminal (MP08_0009) – approved
- Port Kembla Bulk Liquids Terminal (SSD – 7264) – approved
- Unanderra Liquid Waste Facility (SSD-8304) – response to submissions
- Kembla Grange Waste Facility (SSD-5300-Mod-2) – approved
- Port Kembla Gas Terminal (SSI-9471-Mod-2) - approved
- Tallawarra B Power Station (MP07_0124-Mod-2) – approved
- Blast Furnace 6 Reline (SSI-22545215) – prepare EIS

Potential impacts

Potential cumulative impacts may occur as a result of construction occurring simultaneously or consecutively with the construction of other major projects in the vicinity of the project, particularly those within the wider Port Kembla industrial area. These impacts are expected to be negligible to minor and temporary in nature, given that the project is not expected to significantly change the existing environment during operation.

Any potential cumulative impacts will be reduced through the application of individual project-specific environmental mitigation measures.

Further investigation

The EIS will include a cumulative impact assessment component. The cumulative impact assessment will:

– Take into consideration past, present and reasonably foreseeable planned developments that are relevant due to their proximity and/or potential to interact with the identified proposal impacts.
– Assess cumulative impacts to air, noise, water and traffic.
– Outline how cumulative impacts may be managed through strategic planning or policy.
– Document how cumulative impacts have been considered and, to the fullest extent possible, the project's relative contribution to those cumulative impacts.

6. Community and stakeholder engagement

Together with the adjacent Springhill Works, BlueScope's PKSW is the largest manufacturing site by size in Australia at over 750 hectares, and for the best part of a century has been situated near the heart of the city of Wollongong. With neighbours bordering the site, BlueScope is very much interconnected with the local community.

BlueScope maintains an open-door approach by having over 5,000 visitors tour the plant every year (with the exception of recent years when COVID-19 restrictions have applied) with the aim of maintaining open, transparent and effective communication and relationships with neighbours, the local community and all interested stakeholders. BlueScope's community engagement approach is based on living up to 'Our Bond', which is the company's set of guiding principles that outlines how 'we choose to do what is right' and that 'Our Local Communities are our homes'. BlueScope prides itself on upholding its strong reputation by being a good neighbour and also a good corporate citizen. In August 2020, BlueScope announced its new Purpose and Corporate Strategy, which reinforced the commitment to 'Strengthening our Local Communities'.

According to Reptrak, which produces the Corporate Reputation Index globally, BlueScope has a very 'Strong' reputation in Australia including within the local Illawarra community. In fact, out of the Top 60 companies in Australia, BlueScope has consistently ranked in the top 10 to 20 companies with a score in the 'Strong' range. BlueScope is also the highest ranked manufacturer/industrial company amongst the Top 60.

As an active participant in the local community, BlueScope contributes to the community in many ways. One example is through the longstanding BlueScopeWIN Community Partners Program (in the Illawarra) which has funded over $5 million donations and sponsorships to support local community groups with their important projects and programs over the last decade.

6.1 Community consultation strategy

BlueScope has developed a community consultation strategy for the No.6 BF Upgrade Project, which the CLIP now forms an essential component of. As such, consultation for the CLIP will be undertaken as part of the consultation strategy for the No.6 BF Upgrade Project.

The outcomes of consultation will be included in the EIS and relevant technical studies. The purpose of the community consultation strategy is to ensure ongoing and effective communication and engagement with key stakeholders and the local community, to give them the opportunity to provide feedback on the project and to allow for their perspectives to be considered and their concerns to be addressed. The community consultation strategy includes a comprehensive multi-platform, multi-stakeholder engagement program that will be implemented throughout the EIS process. Engagement activities undertaken to date and planned during the EIS process are discussed in Sections 6.2 and 6.4.

Through development of the community consultation strategy, the following key stakeholders for the project have been identified:

- Federal Government:
  - Local Members
  - Ministers (Prime Minister, Treasurer, Environment, Industry, Trade)
  - Departments (Department of Agriculture, Water and Environment (DAWE), AusIndustry)
- State Government:
  - Local Members
  - Ministers (and shadows) (Premier, Deputy Premier, Treasurer, Planning. Industry, Environment and Energy, Jobs and Investment, Water, Transport)
  - Departments (DPIE, Department of Regional NSW)
  - Panels (REZ Procurement Board, Hydrogen Roundtable Illawarra, Recharge Illawarra)
  - Government agencies (Environment Protection Authority (EPA), SafeWork NSW, Southern Area Health Service, Transport for NSW, Water NSW)

- Local Government:
  - Wollongong City Council (WCC), Destination Wollongong
  - Shellharbour City Council (SCC)
- Community groups:
  - BlueScope Community Consultative Committee (CCC)
  - WCC neighbourhood forums 5 & 7
  - Community Industry Group
  - Flagstaff Group
  - Inside Industry
  - Warrawong Group of Schools
  - Harbour users Group
- Business and industry groups:
  - Business NSW
  - Business Illawarra (Illawarra First)
  - Regional Development Australia
  - Australian Steel Institute
  - Manufacturing Australia
  - i3net (Illawarra Suppliers group)
  - AusIMM
  - The Illawarra Connection (TIC)
- Businesses and organisations:
  - University of Wollongong
  - KPMG
  - WIN TV Network
  - NSW Ports
  - Ports Authority
  - Port Kembla Coal Terminal
  - Grain Terminal
  - IRT
  - AIE (Squadron Energy)
  - TAFE NSW
- Environmental groups:
  - Port Kembla Pollution Group
  - Healthy Cities Illawarra
  - Lock the Gate
  - Protect Our Water Alliance
  - Voices of Wollongong
- Indigenous Groups:
  - Illawarra Local Aboriginal Land Council
  - Illawarra Aboriginal Corporation
- Major suppliers (Sydney Water, Endeavour Energy, South 32, Peabody, SIMEC, Ventia, Cardno, CoreGas, BOC, ASMS, South Coast Equipment (SCE), Pacific National, QUBE, Toll, Veolia)
- Customers (distributors, fabricators, rollformers, manufacturers, builders, export)
- Trade Unions (AWU, AMWU, CFMEU, ETU, South Coast Labour Council)
- Investors and shareholders
- Media (local and national)

6.2 Engagement undertaken to date

The project is in its early development stage and environmental assessment is proceeding in parallel with the design and feasibility considerations. As such, only high-level communication has occurred so far with limited consultation specific to the CLIP component of the 6BF Reline Project undertaken to date.

BlueScope's Community Consultative Committee (CCC) aims to provide a forum for open discussion between BlueScope, community representatives and other stakeholders in relation to the environmental management and performance of operations at PKSW. The CCC is chaired by the Lord Mayor of Wollongong and includes representation from a broad stakeholder group representing a significant number of residents across their local community groups, including:

- NSW Ports
- Wollongong City Council
- Environment Protection Authority
- Industry groups
- Port Kembla Pollution Group
- Community service groups
- Local schools
- Neighbourhood forums
- Area health service
- Healthy Cities Illawarra

The CCC meets four times per year and provides a platform for ongoing consultation with a large portion of the local community. As part of the regular CCC meeting in September 2021, BlueScope presented a briefing on the No. 6 Blast Furnace Upgrade Project which included notification of CLIP.

During the preparation of the EIS, the CCC will be further briefed on the project and provided the opportunity to actively engage with BlueScope's project team and provide input into the environmental assessment. Out of cycle communications (via email) are also common to keep the CCC informed of key activities.

On 2 September 2021, BlueScope notified the DPIE of the CLIP project background, desired approval pathway, project timeframes and key issues expected to be addressed in the EIS approval.

A summary of initial engagement activities undertaken by BlueScope to date in relation to the No.6 BF Upgrade Project, which the CLIP forms an essential component of, is provided in Table 6.1.

Table 6.1 Summary of engagement to date

Date	Organisation	Activity
17 Feb 2021	EPA	Discussion of road 15 and Area 21 options.
11 May 2021	DPIE	Initial high level briefing on CLIP.
26 May 2021	EPA	Discussion with EPA about coal storage, incl area 4, saltwater channel and Christy Dr options. Not completely CLIP, but coal storage will be a big co related project
17 June 2021	DPIE	Meeting to discuss project planning progress.
12 Aug 2021	Inside Industry	Quarterly meeting. 6BF Reline briefing including CLIP
2 Sep 2021	NSW Government, Department of Regional NSW	6BF Reline briefing including CLIP
2 Sep 2021	DPIE	Initial meeting to brief DPIE assessment team on the CLIP project.
16 Sep 2021	Community Consultative Committee (CCC)	Quarterly CCC meeting with 20 delegates of the community. Detailed 6BF Reline briefing including CLIP
21 Sep 2021	NSW Ports	First meeting that CLIP was a presentation was sent to Peter Engelen.

Date	Organisation	Activity
29 Sep 2021	i3net	BlueScope supplier Town Hall breakfast. Approx. 100 attendees briefed on 6BF Reline and CLIP.
7 Oct 2021	General Public	Virtual Town Hall (open to all community residents) 6BF and CLIP briefing. 110 citizens participated.
8 Oct 2021	Recharge Illawarra	Regular meeting. 6BF Reline and CLIP discussed.
15 Oct 2021	University of Wollongong	6BF Reline briefing including CLIP with Vice Chancellor and Executive team
28 Oct 2021	Wollongong City Council	Meeting with WCC (Lord Mayor, GM, Councillors and Executive team) to the No. 6 Blast Furnace Upgrade Project including CLIP
Monthly meetings	NSW Ports	Monthly progress meetings are held with NSW Ports to discuss a variety of topic. Regular updates non CLIP are provided.

6.3 Matters raised by engagement to date

While project specific community and stakeholder consultation is in its early stages, it is anticipated that matters of interest will include:

– GHG emissions
– Provision of local jobs (including the local contractor community)
– Impacts to ongoing operations
– Economic impacts
– Whether other options were considered
– Project specific impacts (increased traffic, noise etc.)

6.4 Stakeholder engagement during EIS preparation

Community engagement during the EIS process will be aimed at keeping key stakeholders informed of the assessment process, the project and its anticipated impacts such that concerns can be effectively raised and addressed through the design process. This will be achieved through a number of different channels including:

– Direct consultation with key stakeholders via one-to-one or one-to-few briefings. This affords the opportunity to discuss the project in detail and provide feedback input into the process.
– Presentations at existing forums which BlueScope actively attends and participates in (e.g. quarterly CCC meetings, Wollongong City Council regular briefings, i3Net forums, Port Kembla Harbour users group, The Port Kembla Pollution Group, Inside Industry Board meetings, Business Illawarra functions).
– A public display about the project at BlueScope's Visitors Centre at PKSW, open to the 5-6,000 visitors per annum (with the exception of recent years when COVID-19 restrictions have applied).
– Tours of the steelworks (5-6,000 visitors per year, with the exception of recent years when COVID-19 restrictions have applied), conducted by Inside Industry, to include high level information about the project.
– Regular local and national media stories about the project.
– Regular posts on BlueScope's social media about the project (LinkedIn, Twitter and Facebook).
– Project details/updates to be displayed on the www.bluescopeillawarra.com.au website.
– BlueScope employees (3,000 direct in the Illawarra) to be informed of project updates through BlueScope's own internal Workplace site (Facebook for Business).

6.5 Stakeholder engagement during future project stages

Opportunities for members of the community and other stakeholders to engage with BlueScope during the project will be provided through a range of mechanisms, as outlined in Table 6.2.

Table 6.2 Stakeholder engagement mechanisms

Mechanism	Description
Key Stakeholder Briefings	Direct consultation with key stakeholders via one-to-one or one-to-few briefings affords the opportunity to discuss the project in detail and provide feedback input into the process.
Existing Forums	BlueScope will continue to provide community and other stakeholders updates through existing forums such as the quarterly CCC meetings. Presentations in these forums will provide the attendees with an opportunity to communicate community sentiments regarding project activities and raise any issues or concerns.
News and Social Media	Updates about the project will be regularly posted on BlueScope's social media, and local and national media will be engaged to broadcast stories about the project.
BlueScope in the Illawarra website	Project updates will be made available for members of the public via the BlueScope in the Illawarra website. The website will also allow members of the public to register their interest to stay informed about the project.

7. Conclusion

BlueScope proposes to upgrade the PKSW berths 111, 112 and 113 though the CLIP, including construction of a new SU, new conveying infrastructure, and new truck loading facilities. This will allow BlueScope to import the required quantities of metallurgical coal to continue steel making operations post 2024, following the end of mining in the Wongawilli Seam at South 32's Dendrobium Coal Mine.

The CLIP is an essential component in the PKSW supply chain to ensure the ongoing security of domestic supply of products to market into the future. The project will support the delivery of significant economic and social benefits to the State by securing the continued operation of PKSW beyond 2024.

The CLIP is a key component of the No.6 BF Upgrade Project, which has been declared CSSI as it is considered essential to NSW for economic and social reasons.

The project is important socially and economically in maintaining local production and manufacturing, supporting 3,000 full time direct employees, approximately 1,500 full-time on-site contractors, and up to 10,000 jobs in total, including indirect employees, reducing reliance on international material import and assisting NSW with its post COVID-19 recovery.

An EIS will be prepared for the project in accordance with the SEARs and with consideration of feedback received during the community and stakeholder engagement program.

8. References

ABS. 2016a. 2016 Census QuickStats for Wollongong LGA. Accessed from: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA18450?opendocument

ABS. 2016b. 2016 Census QuickStats for Port Kembla (SSC). Accessed from: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC13245?opendocument

ANZG. 2018. *Australian and New Zealand guidelines for fresh and marine water quality.*

Austroads. 2020. *Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.*

BoM. 2021a. Climate Data Online: Climate Statistics for Port Kembla Signal Station (AWS 068053). Accessed from: http://www.bom.gov.au/climate/averages/tables/cw_068053.shtml

BoM. 2021b. Groundwater Dependant Ecosystems Atlas. Access from: http://www.bom.gov.au/water/groundwater/gde/

DEC. 2006. *NSW Marine Water Quality Objectives in NSW.*

DECC. 2009. *Interim Construction Noise Guidelines.*

DECCW. 2011. *NSW Road Noise Policy.*

DPIE. 2011a. *Hazard Industry Planning Advisory Paper No.6 – Guidelines for Hazard Analysis.*

DPIE. 2011b. *Multi-Level Risk Assessment.*

DPIE. 2021a. *State significant infrastructure guidelines – preparing a scoping report.*

DPIE. 2021b. *Social Impact Assessment Guideline For State Significant Projects.*

DPIE. 2021c. eSpade v2.1. Accessed from: https://www.environment.nsw.gov.au/eSpade2WebApp

DPIE. 2021d. BioNet Atlas Search. Accessed from: https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx

EPA. 2014. *Waste Classification Guidelines.*

EPA. 2016. *Approved Methods for Modelling and Assessment of Air Pollutants in NSW*

EPA. 2017. *Noise Policy for Industry.*

GHD. 2004. *Port Kembla No.2 Steelworks, Investigation of Site Contamination – Stage 2*. Prepared for BlueScope Steel.

GHD. 2018. *Port Kembla Gas Terminal Marine Ecology Impact Assessment*. Prepared for Australian Industrial Energy.

idcommunity. 2019. Wollongong City Council Community Profile. Accessed from: https://profile.id.com.au/wollongong

International Energy Agency (2020) '*Iron and Steel Technology Roadmap – Towards more sustainable steelmaking.*

JBS&G (2016) *Site Investigation BlueScope, No.2 Works 08 August 2016 50386/No 2 R01 - Rev 2.*

NSW Government. 2015. Illawarra Shoalhaven Regional Plan. Accessed from: https://www.planning.nsw.gov.au/-/media/Files/DPE/Plans-and-policies/illawarra-shoalhaven-regional-plan-2015-11.pdf?la=en

NSW Government. 2018. State infrastructure strategy. Accessed from: https://www.treasury.nsw.gov.au/nsw-economy/state-infrastructure-strategy

NSW Government. 2019. *NSW 2040 Economic Blueprint*. Accessed from: https://www.treasury.nsw.gov.au/nsw-economy/nsw-2040-economic-blueprint

NSW Government. 2020. *COVID-19 Recovery Plan*. Accessed from: https://www.nsw.gov.au/covid-19-recovery-plan

Port Kembla (PK) Environmental Group. 2005. *Port Kembla Harbour Water Quality Monitoring Program*.

Roads and Maritime Services (RMS). 2002. *Guide to Traffic Generating Development.*

Senversa (2019) *Groundwater Monitoring Event – March/ April 2019, BlueScope Steelworks Complex, Five Islands Road, Port Kembla, NSW.*

Transport for NSW (TfNSW). 2021. Traffic Volume Viewer. Accessed from: https://roads-waterways.transport.nsw.gov.au/about/corporate-publications/statistics/traffic-volumes/aadt-map/index.html#/?z=13&q=Port%20Kembla%20NSW,%20Australia&lat=-34.475327108942004&lon=150.88385416388599&yr=2018&id=07097&tb=1&df=0&hv=1

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Appendices

Appendix A

Scoping Worksheet

Environmental Impact Statement (EIS) scoping worksheet for:			*Commodities Logistics Infrastructure Project* hh								Date:		Sep-21	
What matters might be impacted?			**What activities might cause an impact?**	**What are the characteristics of the impact?**						**How will the impact be managed?**	**What are the community and other stakeholder views?**	**What level of assessment and engagement is required in the EIS preparation phase?**		
Social and environmental matters **I.e. natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements** ***Click on the matter for a description, or the link above for full glossary***			**Without any mitigation, is the proposal likely to impact on the matter?** ***(Select from list)***	**If there is a 'likely' impact:** **1. list the activities expected to cause the impact; and** **2. if applicable, list the receptor being impacted and its status.** *E.g. construction noise will be heard at nearby school* **If 'unlikely', briefly explain why. Has the impact been actively avoided through project design or site location?** ***(Manual entry)***	**Is the impact, without mitigation, expected to cause a material effect with regard to its...** ***(Answer 'Y', 'N' or '?')*** ***Click on characteristic for description, or the link above for further detail***				**Does the impact need assessment in the EIS?** ***(Auto fills)***	**Is the impact, without mitigation, expected to have a material cumulative effect with other impacts (including from other projects)?** ***(Select from list)***	**What safeguards and management measures are expected to be required to address the impact?** ***(Select from list)***	**Are there community or other stakeholder concerns regarding the impact or activity?** ***(Based on engagement with community and other stakeholders)*** ***(Select from list)***	**Expected level of assessment and/or engagement required** ***(Auto fills)***	**Relevant section in Scoping Report** ***(Manual entry)***
					extent?	***duration?***	***severity?***	***sensitivity?***						
What does the proposal mean for people?	AMENITY	acoustic	Likely	New noise sources at new locations within the site.	N	Y	Y	N	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.2.3
		visual	Unlikely	Upgrade to existing infrastructure within the site with limited visibility								No	Scoping Report	5.3.6
		odour	Unlikely	Dust and exhaust emissions sources not likely to cause odour								No	Scoping Report	5.2.2
		microclimate	Unlikely	Ongoing operation consistent with current								No	Scoping Report	5.4.1
		other - please specify	n/a										No assessment necessary - Worksheet only	
	ACCESS	access to property	Unlikely	No impacts to 3rd party property anticipated								No	Scoping Report	5.3.1
		utilities	Unlikely	Utility impacts confined to BlueScope assets								No	Scoping Report	5.3.11
		road and rail network	Likely	Construction traffic generation cumulative with ongoing operational	Y	Y	N	N	Yes	Yes	Standard	Yes	Other Issue + CIA + Focussed Engagement	5.3.1
		offsite parking	Unlikely	Offsite parking not required.								No	Scoping Report	5.3.1
		other - please specify	n/a										No assessment necessary - Worksheet only	
	BUILT ENVIRONMENT	public domain	Unlikely	Fully within the existing BlueScope site								No	Scoping Report	5.4.2
		public infrastructure	Unlikely	Fully within the existing BlueScope site								No	Scoping Report	5.4.2
		other built assets	Unlikely	Fully within the existing BlueScope site								No	Scoping Report	5.4.2
		other - please specify	n/a										No assessment necessary - Worksheet only	
	HERITAGE	natural	Unlikely	Heavily disturbed industrial site								No	Scoping Report	5.3.3
		cultural	Unlikely	No listed items in proximity to works.								No	Scoping Report	5.3.3
		Aboriginal cultural	Unlikely	No nearby sites from AHIMS search								No	Scoping Report	5.3.4
		built	Unlikely	No listed items in proximity to works.								No	Scoping Report	5.3.3
		other - please specify	n/a										No assessment necessary - Worksheet only	
	COMMUNITY	health	Likely	Health issues primarly associated with air quality	N	Y	N	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.2.2
		safety	Likely	Issues associated with dangerous goods and materials handling	N	Y	N	Y	Yes	No	Project Specific	Yes	Key Issue + Focussed Engagement	5.2.1
		services and facilities	Unlikely	No impacts to community services / facilities								No	Scoping Report	5.3.7
		cohesion, capital and resilience	Unlikely	Project proceeding would support social cohesion								No	Scoping Report	5.3.7
		housing	Unlikely	No impact to housing								No	Scoping Report	5.3.7
		other - please specify												
	ECONOMIC	natural resource use	Likely	Change to source of coal but not a risk of overuse	Y	Y	N	N	Yes	No	Standard	Yes	Other Issue + Focussed Engagement	5.3.7
		livelihood	Likely	Positive impact - security of ongoing direct and indirect employment	Y	Y	Y	Y	Yes	Yes	Standard	Yes	Other Issue + CIA + Focussed Engagement	5.3.7
		opportunity cost	Likely	Options comparision indicates the preferred option would result in positive feedback from capital costs	Y	Y	Y	Y	Yes	No	Standard	No	Other Issue	3.2.2
		other - please specify	n/a										No assessment necessary - Worksheet only	
What does the proposal mean for the natural environment?	AIR	particulate matter	Likely	Dust generation from stockpileing and materials handling	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.2.2
		gases	Likely	Exhaust emmisions from construction equipment and ships	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.2.2
		atmospheric emissions	Unlikely	No longterm atmospheric changes are likely								No	Scoping Report	5.2.2
		other - please specify	n/a										No assessment necessary - Worksheet only	
	BIODIVERSITY	native vegetation	Unlikely	Existing disturbed industrial site (BDAR waiver)								No	Scoping Report	5.3.2
		native fauna	Unlikely	Existing disturbed industrial site (BDAR waiver)								No	Scoping Report	5.3.2
		other - please specify	n/a										No assessment necessary - Worksheet only	
	LAND	stability and/or structure	Unlikely	existing industrial site								No	Scoping Report	5.4.3
		soil chemistry	Unlikely	existing industrial site								No	Scoping Report	5.4.3
		capability	Unlikely	existing industrial site								No	Scoping Report	5.4.3
		topography	Unlikely	The site has flat topography								No	Scoping Report	2.2.2
		other - please specify	n/a										No assessment necessary - Worksheet only	
	WATER	water quality	Likely	Water quality of potential releases to the environment needs to be assessed	Y	Y	Y	Y	Yes	Yes	Project Specific	Yes	Key Issue + CIA + Focussed Engagement	5.2.4
		water availability	Unlikely	Same water sources as current operation retained								No	Scoping Report	5.2.4
		hydrological flows	Unlikely	No impacts to hydrological flows								No	Scoping Report	5.2.4
		other - please specify	n/a										No assessment necessary - Worksheet only	
What risks does the proposal face?	RISKS	coastal hazards	Unlikely	No changes to the coastal zone								No	Scoping Report	5.4.4
		flood waters	Unlikely	Impact to flood duration or severity unlikely								No	Scoping Report	5.4.4
		bushfire	Unlikely	No bushfire prone land								No	Scoping Report	5.4.5
		undermining	Unlikely	No undermining present								No	Scoping Report	5.4.6
		steep slopes	Unlikely	Site has flat topography								No	Scoping Report	5.4.6
		other - please specify	n/a										No assessment necessary - Worksheet only	

Appendix B

Species list

Table A.1 Threatened species recorded within 10 km

Class	Scientific name	Common name	BC Act status*	EPBC Act status*
Animalia	Litoria aurea	Green and Golden Bell Frog	E,P	V
Animalia	Chelonia mydas	Green Turtle	V,P	V
Animalia	Eretmochelys imbricata	Hawksbill Turtle	P	V
Animalia	Stictonetta naevosa	Freckled Duck	V,P	-
Animalia	Phaethon lepturus	White-tailed Tropicbird	P	-
Animalia	Ptilinopus magnificus	Wompoo Fruit-Dove	V,P	-
Animalia	Ptilinopus regina	Rose-crowned Fruit-Dove	V,P	-
Animalia	Ptilinopus superbus	Superb Fruit-Dove	V,P	-
Animalia	Hirundapus caudacutus	White-throated Needletail	P	V
Animalia	Diomedea exulans	Wandering Albatross	E,P	E
Animalia	Diomedea gibsoni	Gibson's Albatross	V,P	V
Animalia	Thalassarche melanophris	Black-browed Albatross	V,P	V
Animalia	Ardenna carneipes	Flesh-footed Shearwater	V,P	-
Animalia	Ardenna grisea	Sooty Shearwater	P	J
Animalia	Ardenna pacifica	Wedge-tailed Shearwater	P	J
Animalia	Ardenna tenuirostris	Short-tailed Shearwater	P	-
Animalia	Calonectris leucomelas	Streaked Shearwater	P	-
Animalia	Macronectes giganteus	Southern Giant Petrel	E,P	E
Animalia	Macronectes halli	Northern Giant-Petrel	V,P	V
Animalia	Pterodroma leucoptera leucoptera	Gould's Petrel	V,P	E
Animalia	Puffinus assimilis	Little Shearwater	V,P	-
Animalia	Fregata ariel	Lesser Frigatebird	P	-
Animalia	Ephippiorhynchus asiaticus	Black-necked Stork	E,P	-
Animalia	Ixobrychus flavicollis	Black Bittern	V,P	-
Animalia	Haliaeetus leucogaster	White-bellied Sea-Eagle	V,P	-
Animalia	^^Lophoictinia isura	Square-tailed Kite	V,P	-
Animalia	Haematopus fuliginosus	Sooty Oystercatcher	V,P	-
Animalia	Haematopus longirostris	Pied Oystercatcher	E,P	-
Animalia	Pluvialis squatarola	Grey Plover	P	-
Animalia	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	CE	V
Animalia	Calidris acuminata	Sharp-tailed Sandpiper	P	-
Animalia	Calidris canutus	Red Knot	P	-
Animalia	Calidris melanotos	Pectoral Sandpiper	P	-
Animalia	Gallinago hardwickii	Latham's Snipe	P	-
Animalia	Limicola falcinellus	Broad-billed Sandpiper	V,P	-
Animalia	Limosa limosa	Black-tailed Godwit	V,P	-

Class	Scientific name	Common name	BC Act status*	EPBC Act status*
Animalia	Tringa incana	Wandering Tattler	P	-
Animalia	Stercorarius parasiticus	Arctic Jaeger	P	-
Animalia	Gygis alba	White Tern	V,P	-
Animalia	Hydroprogne caspia	Caspian Tern	P	-
Animalia	Onychoprion fuscata	Sooty Tern	V,P	-
Animalia	Sternula albifrons	Little Tern	E,P	-
Animalia	Thalasseus bergii	Crested Tern	P	-
Animalia	^^Callocephalon fimbriatum	Gang-gang Cockatoo	V,P	-
Animalia	Glossopsitta pusilla	Little Lorikeet	V,P	-
Animalia	^^Lathamus discolor	Swift Parrot	E,P	CE
Animalia	^^Polytelis swainsonii	Superb Parrot	V,P	V
Animalia	^^Ninox strenua	Powerful Owl	V,P	-
Animalia	^^Tyto novaehollandiae	Masked Owl	V,P	-
Animalia	Grantiella picta	Painted Honeyeater	V,P	V
Animalia	Petroica rodinogaster	Pink Robin	V,P	-
Animalia	Phascolarctos cinereus	Koala	V,P	V
Animalia	Petauroides volans	Greater Glider	P	V
Animalia	Pteropus poliocephalus	Grey-headed Flying-fox	V,P	V
Animalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	V,P	-
Animalia	Dugong dugon	Dugong	E,P	-
Animalia	Arctocephalus pusillus doriferus	Australian Fur-seal	V,P	-
Animalia	Megaptera novaeangliae	Humpback Whale	V,P	V
Animalia	Physeter macrocephalus	Sperm Whale	V,P	-
Plantae	Cynanchum elegans	White-flowered Wax Plant	E	E
Plantae	Senna acclinis	Rainforest Cassia	E	-
Plantae	Pultenaea aristata	Prickly Bush-pea	V	V
Plantae	Gossia acmenoides	Gossia acmenoides population in the Sydney Basin Bioregion south of the Georges River	E2	-
Plantae	Rhodamnia rubescens	Scrub Turpentine	CE	-
Plantae	Syzygium paniculatum	Magenta Lilly Pilly	E	V
Plantae	Zieria granulata	Illawarra Zieria	E	E

** V = vulnerable, E = endangered, CE = critically endangered, EP = endangered population*

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