BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project

Scoping Report

1 November 2022

Project No.: 0650342

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BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project

Scoping Report

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Acronyms and Abbreviations

Name	Description
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
AC	Alternating Current
AGL	Above Ground Level
AHIMS	Aboriginal Heritage Information Management System
AIS	Australian Iron and Steel
ANZG	Australian and New Zealand Guidelines for Fresh and Marine Water Quality
AQIA	Air Quality Impact Assessment
ARTC	Australian Rail Track Corporation
AS	Australian Standard
ASC	Australian Soil Classification
ASL	Above Sea Level
ASMAP	Advanced Steel Manufacturing Precinct
BC Act	Biodiversity Conservation Act 2016
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
bgl	Below Ground Level
BoM	Bureau of Meteorology
BOS	Basic Oxygen Steelmaking
BSL	BlueScope Steel Limited
°C	Degree Celsius
CBD	Central Business District

Name	Description
CLM Act	Contaminated Land Management Act 1997
COG	Coke Ovens Gas
CRM	Commonwealth Rolling Mills
DA	Development Application
DAWE	Department of Agriculture, Water and the Environment
DC	Direct Current
DPE	NSW Department of Planning and Environment (formerly Department of Planning, Industry and Environment, DPIE)
DPIE	NSW Department of Planning, Industry and Environment (now Department of Planning and Environment, DPE)
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning & Assessment Act 1979
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
EPIs	Environmental Planning Instruments
EPL	Environment Protection Licence
ERM	Environmental Resources Management Australia Pty Ltd
ESG	Environmental, Social and Governance
GHG	Greenhouse Gas
HIPAP	Hazardous Industry Planning Advisory Paper
HSM	Hot Strip Mill
HV	High Voltage
IG	In Gauge is plate less than 2500 mm wide
INCG	Interim Construction Noise Guideline
km/h	kilometres per hour
kPa	KiloPascal
kV	kilovolt
LALC	Local Aboriginal Land Council
LGA	Local Government Area
LV	Low Voltage
LVIA	Landscape and Visual Impact Assessment
MMI	Modern Manufacturing Initiative
MNES	Matters of National Environmental Significance
MVA	Mega-volt-amperes
MW	Megawatt
NO_X	Nitrogen Oxides
NPI	EPA NSW Noise Policy for Industry
NSW	New South Wales
NT Act	Native Title Act 1993

Name	Description
NTV	Native Title Vision
NVIA	Noise and Vibration Impact Assessment
OG	Out of Gauge is plate greater than 2500 mm, applies to road and rail
PHA	Preliminary Hazard Analysis
PKSW	Port Kembla Steelworks
PM	Plate Mill
PMST	Protected Matters Search Tool
POEO Act	Protection of the Environment Operations Act 1997
PSI	Preliminary Site Investigation
QA	Quality Assurance
RFS	NSW Rural Fire Service
RNP	NSW Road Noise Policy
Roads Act	Roads Act 1993
SA2	Statistical Areas Level 2
SA4	Statistical Areas Level 4
SCADA	Supervisory control and data acquisition
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SIA	Social Impact Assessment
SSD	State Significant Development
t	tonnes
TECs	Threatened Ecological Communities
TIA	Traffic Impact Assessment
UBP	Universal Bearing Pile
V	Voltage or volts
WBF	Walking Beam Furnace
WCC	Wollongong City Council
Wollongong CSP	Our Wollongong Our Future 2032 Community Strategic Plan
Wollongong DCP	Wollongong Development Control Plan 2009
Wollongong LEP	Wollongong Local Environmental Plan
Wollongong LSPS	Wollongong Local Strategic Planning Statement 2020

Glossary

Term	Description
Blowdown	Blowdown is the removal of water from a furnace in order to control furnace water parameters within prescribed limits to minimize scale, corrosion, carryover, and other specific problems. Blowdown is also used to remove suspended solids which may be present in the system.
dB	dB is a logarithmic ratio between a measured level and a reference level. The reference level for sound power is 1 x 10^{-12} Watts and for sound pressure 2 x 10^{-5} Pascals.
dBA	dBA denotes a single number sound pressure level that includes a frequency weighting ("A-weighting") to reflect the subjective loudness of the sound level. The frequency of a sound affects its perceived loudness. Human hearing is less sensitive at low and very high frequencies, and so the A-weighting is used to account for this effect. An A-weighted decibel level is written as dBA.
Hot Stacking	A process in which warm plates are slowly cooled down to prevent quality issues on certain grades of plate. This is done by stacking warm plate on top of each other and placing a cover over the stacked pile of plate to reduce the rate of cooling
L_{eq}	The 'equivalent continuous sound level', L_{eq}, is used to describe the level of a time-varying sound or vibration measurement. L_{eq} is often used as the "average" level for a measurement where the level is fluctuating over time. Mathematically, it is the energy-average level over a period of time (i.e., the constant sound level that contains the equivalent sound energy as the measured level). When the dBA weighting is applied, the level is denoted dB L_{Aeq}.
Project Area / PKSW site	The broader Port Kembla Steelworks (PKSW) at Port Kembla where BlueScope operates an integrated steelworks site is referred to as the Project Area or PKSW site in this Scoping Report.
Project Site	The Project Site refers to the location of proposed ASMAP Project works within the broader PKSW (i.e., Project Area) in this Scoping Report
scale	Scale is a type of iron oxide with thin, flaky texture that is formed on the surface of the steel during the hot-rolling process. It is a by-product of manufacturing hot-rolled metal plates and sheets, occurring as the surface oxidizes during the heating, conditioning and hot rolling processes. The very high surface temperature combined with high roller pressures result in a smooth, bluish grey surface.
the Applicant	BlueScope Steel (AIS) Pty Ltd
the Project	The Project refers to the proposal by the Applicant (BlueScope) to upgrade and modernise the existing steel manufacturing facilities within the Project Site including the Plate Mill and install a new wind tower manufacturing facility (proposed Advanced Steel Manufacturing Precinct (ASMAP) Project) as described in this Scoping Report.

1. INTRODUCTION

1.1 Introduction

BlueScope operates integrated steelworks at its Port Kembla site known as the Port Kembla Steelworks (PKSW). Iron produced in the No5 blast furnace is converted to steel in the Basic Oxygen Steelmaking (BOS) furnaces and then continuously cast into slabs. The slabs are either further processed at the PKSW site into hot rolled coil via the Hot Strip Mill or plate at the Plate Mill.

The PKSW is located at Port Kembla, New South Wales (NSW), on approximately 760 hectares (ha) of industrial land. PKSW is the largest steel production facility in Australia specialising in the production of flat steel products, including slab, hot rolled coil, cold rolled coil, plate, and coated and painted steel products.

The Applicant, BlueScope Steel (AIS) Pty Ltd (BlueScope) proposes to upgrade and modernise certain existing steel manufacturing facilities located at the PKSW to service new and growing markets in the renewable energy and defence sectors. The scope of works included in this Scoping Report is collectively referred to as the Advanced Steel Manufacturing Precinct (ASMAP) Project. The Project is consistent with PKSW's *ResponsibleSteel*^{TM} site certification which drives BlueScope to be a leader in steel sector sustainability by demonstrating responsible sourcing and production practices. *ResponsibleSteel*^{TM} is the global steel industry's multi-stakeholder sustainability standard and certification program, which ensures the steel used by customers, stakeholders and consumers has been sourced and produced responsibly. The ASMAP Project aims to enhance the supply of Australian steel by upgrading the existing plate steel production facility and to install a new wind tower manufacturing facility. It is anticipated that the proposed ASMAP project will also meet the *Responsible Steel* Standard attained by BlueScope.

The Applicant is seeking State Significant Development (SSD) consent under Part 4, Division 4.7 of the *Environmental Planning & Assessment Act 1979* (EP&A Act) for the Project.

The Applicant has engaged Environmental Resources Management Australia Pty Ltd (ERM) to prepare a Scoping Report for the Project, as a first step in the SSD consent process. The Scoping Report supports an application to the Secretary of the NSW Department of Planning and Environment (DPE) for Secretary's Environmental Assessment Requirements (SEARs). The SEARs will guide the preparation of an Environmental Impact Statement (EIS) for the Project to accompany the Project Development Application (DA).

1.2 Applicant

BlueScope is the main Australian operating entity of BlueScope Steel Limited (BSL), an Australian based company with operations in Australia, North America and the Asia-Pacific that specialises in the production of steel materials, products, systems and technologies. BSL has sales offices across 18 countries and currently employs 15,700 people globally. BSL is a leading manufacturer of painted and coated steel products, with strong expertise in providing steel components for houses, buildings, automotive, and other structures.

In Australia, BSL currently employs 6,700 people at more than 50 facilities and 50 distribution centres. The BlueScope business in Australia specialises in flat steel products including slab, hot rolled coil, cold rolled coil, plate, and value-added metallic coated and painted steel products. BlueScope's PKSW is the largest steel production facility in Australia with an annual production capacity of approximately three (3) million tonnes of crude steel.

The Australian Business Number (ABN) and address of BSL are listed below:

- **ABN:** 16 000 011 058; and
- **Address**: Level 11, 120 Collins Street, Melbourne, VIC 3000.

1.3 Project Overview

The Project is referred to as the ASMAP and comprises:

- Within the existing Plate Mill:
  - The construction of a new Walking Beam Furnace to replace two existing furnaces;
  - Upgrades to the descaling system and electrical infrastructure;
  - New equipment for the processing of heavy plate, including oxy cutters, a transfer conveyor, cranes and other ancillary equipment;
- A wind tower manufacturing facility; and
- All ancillary infrastructure to enable completion of ASMAP, including but not limited to internal roads, hardstands, construction compounds and laydown areas.

The proposed Project is expected to cost approximately $217-$250 million in capital expenditure, of which BSL has been granted approval for $55.4 million in part-funding from the Federal Government (*subject to finalisation of a funding agreement*) via a Modern Manufacturing Initiative grant to support aspects of this Project among others. In turn, the Project is expected to create around 1000 new jobs in steel manufacturing and in associated industries, as well as consolidating and expanding Australian capabilities in steel fabrication. The proposed Project is also highly complementary to BSL's broader vision for a potential hydrogen ecosystem for the Illawarra, leveraging BSL's green hydrogen projects that are under development at PKSW.

The Project design and components are described in further detail in **Section 3.3**, and preliminary design drawings are provided in **Appendix H**.

1.3.1 Project Objectives

The objectives of the Project are to:

- Meet the supply of steel products to the defence and renewable energy sectors which are currently imported to NSW from other parts of Australia and overseas;
- Support and maintain the current demand / supply of steel products within BSL's existing customer market base;
- Provide both direct and indirect employment opportunities during construction and operation;
- Liaise and work with the community and all potentially affected stakeholders in the identification, mitigation and/or monitoring of any potential environmental effects;
- Ensure quality, safety and environmental standards are maintained;
- Recycle and reuse materials where practical and economically feasible; and
- Minimise any potential adverse environmental impacts and to maximise environmental benefits provided by the project.

1.4 Purpose of this Report

This Scoping Report supports an application for SEARs which will guide the development of the EIS to support a future SSD application under Part 4 of the EP&A Act. The Scoping Report has been prepared in accordance with the following guidelines:

- *State Significant Development Guidelines - Preparing a Scoping Report: Appendix A to the State Significant Development Guidelines* (DPIE, 2021a) (Scoping Report Guidelines);
- *Social Impact Assessment Guideline for State Significant Projects* (DPIE, 2021b);
- *Cumulative Impact Assessment Guidelines for State Significant Projects* (DPIE, 2021c); and
- *Undertaking Engagement Guidelines for State Significant Projects* (DPIE, 2021d).

Regional Context

F1-1

Drawing No:	0650342s_BSL_CR_G001_R3.mxd		Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Date:	21/10/2022	Drawing Size: A4	
Drawn By:	VN	Reviewed By: DS	Client: BlueScope Steel Limited

Coordinate System: GDA 1994 MGA Zone 56

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2. STRATEGIC CONTEXT

2.1 Site Setting and Features

2.1.1 Regional Context

The Project Site is located within the existing industrial precinct of Port Kembla, NSW, which is approximately 3 km south of the Wollongong central business district (CBD). It is approximately 80 km south of Sydney CBD and is part of the Illawarra Region of NSW. The regional context is displayed is **Figure 1-1** above.

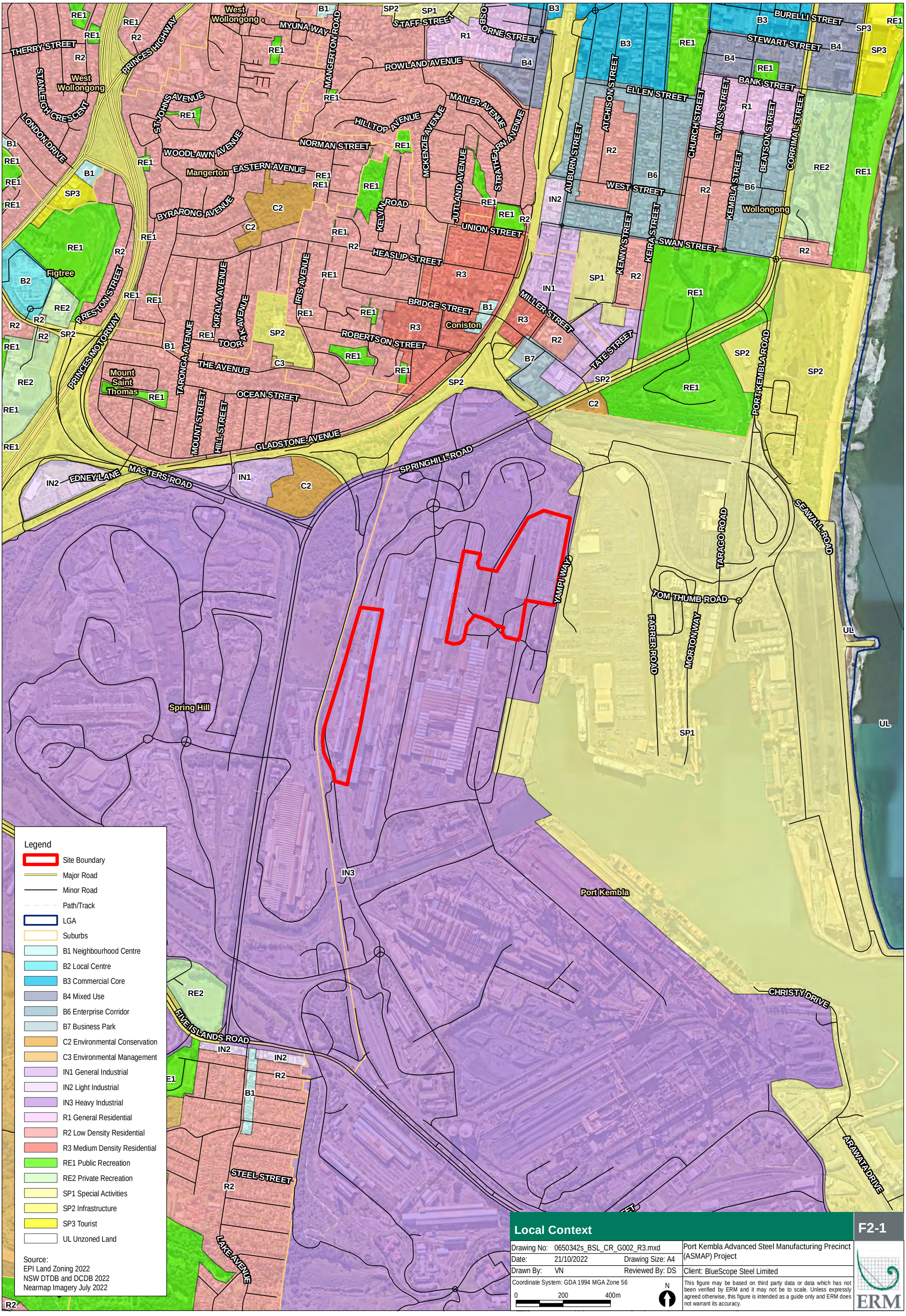
The Project Site is situated within the Wollongong City Council (WCC) Local Government Area (LGA), which covers a total area of 684 km^2 and has a population of 219,798 (ABS, 2021). The Project is located within the industrial area of the WCC LGA and is specifically centred within the Port Kembla Steelworks and adjacent to Port Kembla Harbour.

The Project Site is located within the Allans Creek Catchment which covers an area of 45 km^2 south-west of the Wollongong CBD. The creek meanders generally west to east, through an industrial precinct at Unanderra, NSW, before reaching the sea at the Port Kembla Steelworks.

2.1.2 Local Context

The PKSW is located within the suburb of Port Kembla, NSW, which is a beachside suburb south of the centre of Wollongong LGA, known for its significant role in the industrial history of the Illawarra region. Port Kembla is an international trade gateway for bulk agricultural, construction and mining industries and is home to the state's largest grain export terminal; it is also the state's second largest coal export port. Port Kembla is situated 90 km south of Port Botany, 67 km from south-west Sydney and 100 km from Western Sydney.

Port Kembla recorded a population of 5,088 people in 2021 (ABS, 2021) and contains a variety of land uses including heavy industrial and infrastructure. As shown in **Figure 2-1,** land within Port Kembla is predominantly zoned as IN3 Heavy Industrial and SP1 Special Activities pursuant to State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) and consists of mostly cleared and heavily industrialised land. The entirety of the proposed Project works is within areas of PKSW zoned IN3 Heavy Industrial. The closest residential areas are within a radius of 1.5 km from the site. Located in a northerly direction are Coniston and Mount Saint Thomas and south of the site is Cringila, as depicted in **Figure 2-2**.


West Wollongong
MYUNA WAY
MANGERTON ROAD
STAFF STREET
ORNE STREET
BURELLI STREET
STEWART STREET
BANK STREET
ELLEN STREET
THERRY STREET
PRINCES HIGHWAY
STANLEIGH CRESCENT
LONDON DRIVE
ST JOHNS AVENUE
ROWLAND AVENUE
MAILER AVENUE
HILLTOP AVENUE
MCKENZIE AVENUE
STRATHEARN AVENUE
AUBURN STREET
ATCHISON STREET
CHURCH STREET
EVANS STREET
BEATSON STREET
CORRIMAL STREET
WOODLAWN AVENUE
NORMAN STREET
Mangerton
EASTERN AVENUE
KELVIN ROAD
JUTLAND AVENUE
KEMBLA STREET
Wollongong
WEST STREET
BYRARONG AVENUE
UNION STREET
KENNY STREET
KEIRA STREET
SWAN STREET
HEASLIP STREET
Figtree
PRESTON STREET
IRIS AVENUE
KIRALA AVENUE
TOORAK AVENUE
BRIDGE STREET
Coniston
MILLER STREET
TARONGA AVENUE
ROBERTSON STREET
TATE STREET
PORT KEMBLA ROAD
PRINCES MOTORWAY
THE AVENUE
Mount Saint Thomas
OCEAN STREET
MOUNT STREET
HILL STREET
GLADSTONE AVENUE
SPRINGHILL ROAD
EDNEY LANE
MASTERS ROAD
IN2
IN1
C2
VAMPI WAY
TARAGO ROAD
SEAWALL ROAD
TOM THUMB ROAD
FARRER ROAD
MORTON WAY
UL
SP1
Spring Hill
Port Kembla
RE2
FIVE ISLANDS ROAD
CHRISTY DRIVE
ARAWATA DRIVE
STEEL STREET
LAKE AVENUE
IN3
R2
B1
B2
B3
B4
B6
B7
R1
R3
RE1
RE2
SP1
SP2
SP3
C3
Legend
Site Boundary
Major Road
Minor Road
Path/Track
LGA
Suburbs
B1 Neighbourhood Centre
B2 Local Centre
B3 Commercial Core
B4 Mixed Use
B6 Enterprise Corridor
B7 Business Park
C2 Environmental Conservation
C3 Environmental Management
IN1 General Industrial
IN2 Light Industrial
IN3 Heavy Industrial
R1 General Residential
R2 Low Density Residential
R3 Medium Density Residential
RE1 Public Recreation
RE2 Private Recreation
SP1 Special Activities
SP2 Infrastructure
SP3 Tourist
UL Unzoned Land
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Local Context
F2-1
Drawing No: 0650342s_BSL_CR_G002_R3.mxd
Date: 21/10/2022
Drawing Size: A4
Drawn By: VN
Reviewed By: DS
Coordinate System: GDA 1994 MGA Zone 56
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400m
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Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
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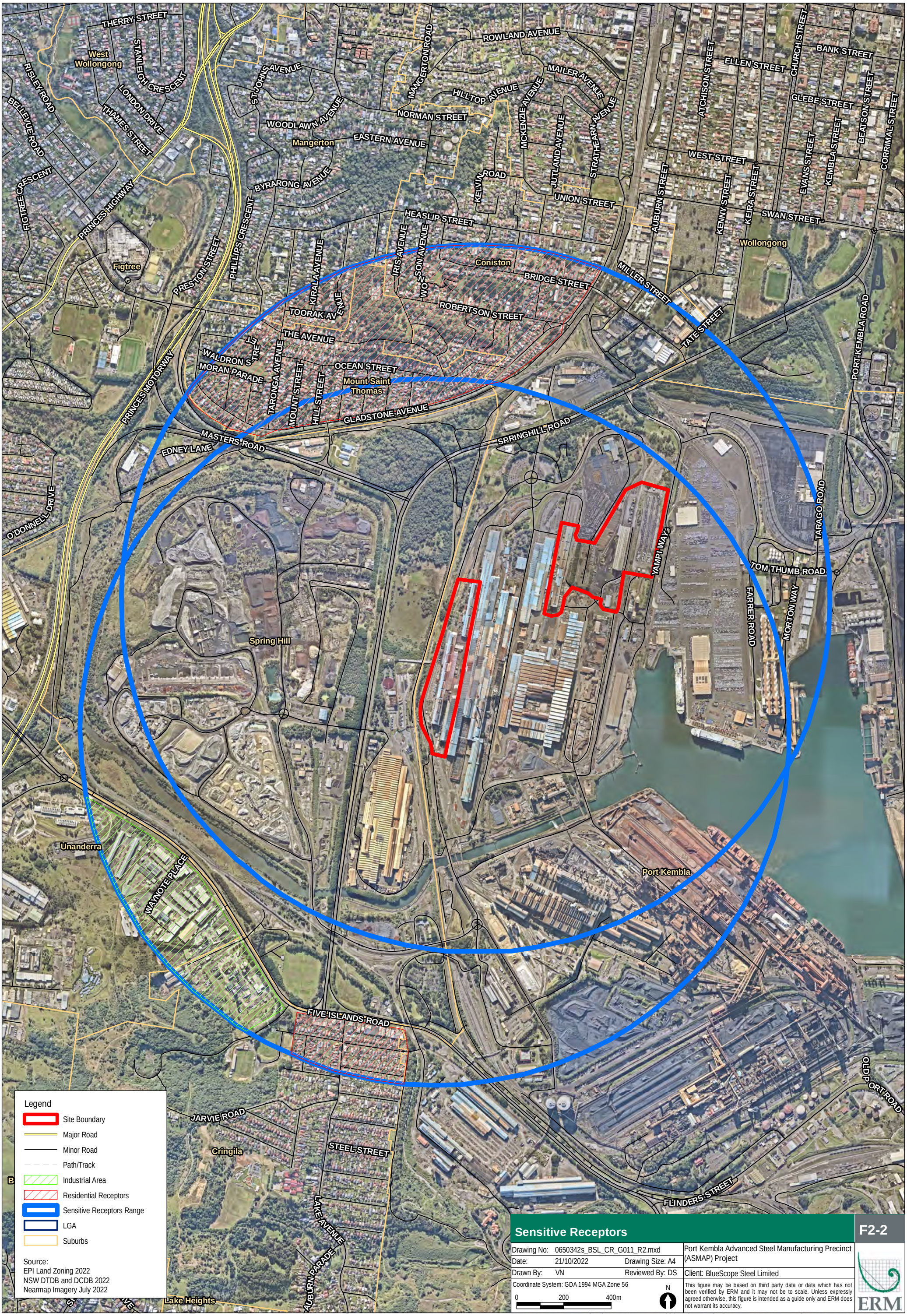
THERRY STREET
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RISLEY ROAD
LONDON DRIVE
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KIRALA AVENUE
TOORAK AVENUE
THE AVENUE
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ROBERTSON STREET
MILLER STREET
AUBURN STREET
KENNY STREET
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ATCHISON STREET
ELLEN STREET
CHURCH STREET
BANK STREET
GLEBE STREET
EVANS STREET
KEMBLA STREET
BEATSON STREET
CORRIMAL STREET
SWAN STREET
Wollongong
TATE STREET
PORT KEMBLA ROAD
WALDRON STREET
MORAN PARADE
TARONGA AVENUE
MOUNT STREET
HILL STREET
OCEAN STREET
Mount Saint Thomas
GLADSTONE AVENUE
PRINCES MOTORWAY
MASTERS ROAD
EDNEY LANE
SPRINGHILL ROAD
O'DONNELL DRIVE
Spring Hill
YAMPI WAY
TARAGO ROAD
TOM THUMB ROAD
FARRER ROAD
MORTON WAY
Unanderra
WAYNOTE PLACE
Port Kembla
FIVE ISLANDS ROAD
OLD PORT ROAD
JARVIE ROAD
Cringila
STEEL STREET
LAKE AVENUE
AUBURN PARADE
FLINDERS STREET
Lake Heights
Legend
Site Boundary
Major Road
Minor Road
Path/Track
Industrial Area
Residential Receptors
Sensitive Receptors Range
LGA
Suburbs
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
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2.1.3 Site Context

The Project Site is located within the broader PKSW located at Five Islands Road, Port Kembla 2505, NSW. The ASMAP Project Site is contained within Lot 1 of DP 606434 and wholly within the WCC LGA. The Project Area is zoned in its entirety as *IN3 Heavy Industrial* under provisions of the *Transport and Infrastructure SEPP 2021*. The elevation across the Project Site is relatively consistent and flat, ranging from 5 m to 12 m above sea level (ASL).

The Project Site is located within the PKSW area. The PKSW is located within the industrial zoning of Port Kembla and has other heavy industrial neighbours, as shown in **Figure 2-1**. The existing plate mill facility at PKSW includes BSL's existing plate mill furnaces, descaling box, descaling pumps, plate processing cutters and cranes.

- PKSW is strategically located with good connectivity to road and rail links to major cities within NSW. The Princes Highway (A48) provides connectivity for Port Kembla to Sydney. The main access to PKSW is provided along its north via the BlueScope Steel Northgate Entrance (Northgate), which provides entry from the Springhill Road (B65). Masters Road connects Springhill Road to the Princes Motorway (M1), which serves as the main arterial road in the Illawarra region. The other entrances to the PKSW include:
- Tom Thumb Road via the NSW Ports Yampi Way entrance gate from the east;
- Five Islands Road (B65) onto the Springhill Road from the west; and
- Flinders Street from the south.
- Additionally, the PKSW facility can be accessed by rail lines from the north (Sydney), south coast and west. PKSW also has direct port access for import (raw materials such as iron ore and coking coal) and exports (coil and finished products).

Boundaries and surrounding land uses of the PKSW are detailed in **Table 2-1** below.

Table 2-1 Boundaries and Surrounding Land Use

Direction	Details
North	Across Springhill Road is the IN3 zoned Shire Steel and Fabrication, Wollongong Sheet Metal and Engineering and Cleary Bros, followed by SP2 Railway zoned area
East	SP1 Special Activities zoned Port Kembla facilities (including Linx Port Services and Australian Amalgamated Terminals) and Port Kembla Harbour including Tom Thumb Lagoon
South	IN3 Heavy Industrial zoned industrial premises including Allans Creek
West	Lysaghts Platform Railway Station and Port Kembla Railway Line followed by IN3 Heavy Industrial zoned industrial premises including Veolia Depot, Cleanaway Port Kembla Liquid Waste Services and Australian Steel Mill Services (both contractors to BSL with licensed sites within PKSW)

2.2 Strategic Framework

The Project will align with various strategies, policies, and plans across National, State (NSW), regional, and local contexts. The strategic framework for the Project is outlined in **Table 2-2** below.

Table 2-2 Alignment with Strategic Framework

Strategy, Policy or Plan	Description	Project Alignment
National Context		
Critical Minerals Strategy 2022 and Modern Manufacturing Strategy	*Australia's 2022 Critical Minerals Strategy* sets out a long-term plan to develop Australia's critical minerals sector and complements the government's initiative of *Modern Manufacturing Strategy* to harness global opportunities and achieve scale. Under this $1.5 billion strategy, the government aims to support projects from industry that will: ■ Harness and build on the sector's strengths and advantages; ■ Provide innovative solutions to overcome constraints that limit value creation and may prevent the sector achieving its full potential; and ■ Transform the sector by growing a high-value, reputable and dynamic manufacturing industry focussed on resources technology and critical minerals processing. Mid-stage critical minerals projects can access the government's $1.3 billion MMI fund which helps companies pilot, demonstrate or scale up the techniques and processes they need to achieve commercial close.	BlueScope Steel has been awarded $55 million from the Federal government's flagship Modern Manufacturing Initiative (MMI) which will help create an Advanced Steel Manufacturing Precinct at PKSW *(subject to finalisation of a funding agreement)*. The Project will see the building of a new facility to manufacture components for the renewable energy, defence and other sectors, as well as upgrades and modernisation of BlueScope's Plate Mill.
Technology Investment Roadmap: Low Emissions Technology Statement 2021	The *Technology Investment Roadmap* is the government's investment strategy to support commercial uptake of low emissions technologies. It is the cornerstone of Australia's Long-Term Emissions Reduction Plan and supports achieving net zero emissions by 2050.	The roadmap will help deliver the best economic and emissions reduction outcomes for Australia. The Project seeks to deploy low emissions technologies and thereby reduce the emissions arising from traditional steel manufacturing operations at PKSW.
NSW Context		
NSW Net Zero Industry and Innovation Program	The NSW Net Zero Industry and *Innovation Program* sets out to support and partner with the industry to reduce emissions and accelerate the development of clean technology and decarbonisation. The program is part of the *NSW Net Zero Plan Stage 1: 2020-2030* to reduce emissions by 50 percent by 2030 and achieve net zero by 2050. The program has three areas of focus: ■ Clean Technology Innovation; ■ New Low Carbon Industry Foundations; and ■ High Emitting Industries.	The program intends to identify facilities to fast-track emission reductions and thereby to implement transformative industrial projects across NSW industry and business. The Project utilizes technologies which have the potential to reduce emissions across steel manufacturing operations at PKSW.

Strategy, Policy or Plan	Description	Project Alignment
NSW 2040 Economic Blueprint	The *NSW 2040 Economic Blueprint* sets out a direction for the continued success of NSW in a changing world and expanding global economy (NSW Treasury, 2019). The Blueprint identifies challenges and risks and highlights major opportunities for the NSW Government to grow industries, innovate and improve our economy. The report was prepared in consultation with stakeholders, and outlines a range of key aspirations for NSW to reach by 2040: ■ The nation's first trillion-dollar economy; ■ Healthy, productive people; ■ Liveable and connected cities; ■ Productive, vibrant regions; ■ Innovative and world class businesses; ■ A sustainable environment with reliable and affordable energy; and ■ Enhanced performance of government.	The NSW 2040 Economic Blueprint focuses on achieving economic growth through advanced manufacturing and new industries. The Project will contribute to these objectives by providing significant capital investment which will deliver benefits to the NSW economy. PKSW has played a significant role in contributing to the economy over the past 90 years and this Project targets long-term viability of steelmaking and continued contribution to the NSW economy under Australia's emission reduction targets.
NSW Climate Change Policy Framework	The *NSW Climate Change Policy Framework* aims to maximise the economic, social and environmental wellbeing of NSW in the context of a changing climate and merging international and national policy settings and actions to address climate change.	The objectives of this Project are consistent with the overarching commitment of the *NSW Climate Change Policy Framework* to achieving net-zero emissions by 2050 and help NSW become more resilient to a changing climate. The ASMAP Project is anticipated to result in improved energy efficiency, improved air emissions, elimination of saltwater cooling and reduced scale generation while leading to improved product quality. The enhanced efficiency of the new furnace will make available additional coke oven gas (COG) for electricity generation.
NSW COVID-19 Recovery Plan	The *NSW COVID-19 Recovery Plan* is the NSW Government's plan to rebuild the economy of NSW following the COVID-19 pandemic (NSW Government, 2020). The Plan identifies various investments and initiatives which aim to boost the NSW economy and promote its future resilience and self-sufficiency. Relevant initiatives outlined within the Plan include: ■ Building a self-sufficient economy through supporting advanced manufacturing and local supply chains; and ■ A Planning System Acceleration Program to support productivity, investment and jobs by reducing the time taken to approve projects.	The Project will contribute to meeting the goals of the *NSW COVID-19 Recovery Plan* by promoting an industrial development that will create employment opportunities. The Project will support the local manufacturing sector and maintain local supply chains. The Project will also provide ongoing employment opportunities during construction and operation, therefore supporting a resilient and self-sustaining NSW economy.

Strategy, Policy or Plan	Description	Project Alignment
Navigating the Future – NSW Ports' 30 Year Master Plan	The Master Plan outlines priorities and the actions required for a sustainable and efficient port supply chain well beyond the 30-year horizon for Sydney, NSW and Australia.	Port Kembla is NSW's port of growth and an economic driver in the Illawarra region. Port Kembla currently handles about 1.5 million mass tonnes of general cargo including steel exports. The Project will provide economic sustainability and the ability to reduce costs.
Building Momentum: State Infrastructure Strategy 2018-2038	The State Infrastructure Strategy 2018-2038 is a 20-year infrastructure investment plan for NSW across each of NSW's key infrastructure sectors – transport, energy, water, health, education, justice, social housing, culture, sport and tourism (Infrastructure NSW, 2019). The Strategy identifies policies and strategies needed to provide the infrastructure that meets the needs of a growing population and a growing economy. It assesses infrastructure challenges and solutions and provides recommendations on how to best grow the State's economy, enhance productivity and improve living standards for the NSW community.	The Project aligns with Recommendation 58 and Recommendation 59, which outline the importance of preserving strategically important industrial land for future industrial development. In addition, the Strategy outlines how economic growth and improved living standards will be achieved through investment in infrastructure projects. These include roads, rail, ports, water, telecommunications, hospitals, schools, and sports facilities, which are generally steel-intensive. The Project will therefore support the aims of the strategy by creating a local source of steel products to downstream manufacturers and the construction industry.
Regional Context		
Illawarra Shoalhaven Regional Plan 2041	The *Illawarra Shoalhaven Region Plan 2041* aims to protect and enhance the region's assets and plan for a sustainable future. The plan applies to the LGAs of Wollongong, Shellharbour, Kiama and Shoalhaven. The region is driven by energy-intensive industrial projects including steelworks and manufacturing and home to an international trade gateway at Port Kembla.	The proposed Project specifically aligns with the below ■ Objective 3: Grow the Port of Port Kembla as an international trade hub; ■ Objective 15: Plan for a Net Zero region by 2050; and ■ *Objective 16: Support the development of a circular economy* – by reduce operating costs and improve environmental outcomes.
Local Context		
Wollongong Local Strategic Planning Statement 2020	The Wollongong Local Strategic Planning Statement (Wollongong LSPS) 2020 was adopted by Council in June 2020 (Wollongong City Council, 2020) to provide a long term strategic vision to describe how the Wollongong LGA should develop over the next 20 years:	The Project is a proposed industrial development that aims to meet the future employment needs of the Wollongong LGA. In relation to the Plate Mill components of the Project, up to 270 jobs will be created during construction, as well as approximately 16 additional permanent operations and maintenance roles.

Strategy, Policy or Plan	Description	Project Alignment
		Similarly, in relation to the new wind tower manufacturing facility, the Project is anticipated to create up to 180 jobs during construction and approximately 140 permanent operational roles. The Wollongong LSPS has been divided into 6 key LGA wide themes and the Project directly aligns with the activities associated with the first theme - *Jobs and Economic growth*.
Our Wollongong Our Future 2032 Community Strategic Plan (Wollongong CSP)	The Wollongong CSP is an overarching Plan which is intended to be a guide for Council's work, decisions and priorities for the next 10 years – including its residents, stakeholders, investors, businesses and community groups to use, to work collaboratively towards agreed goals.	The Project will contribute to economic growth and the future employment needs of the Wollongong LGA. In relation to the Plate Mill components of the Project, up to 270 jobs will be created during construction, as well as approximately 16 additional permanent operations and maintenance roles. Similarly, for the new wind tower manufacturing facility, the Project is anticipated to create up to 180 jobs during construction and approximately 140 permanent operational roles. The Project will directly respond to the Goal 2 of the Wollongong CSP: ■ Goal 2 - We have an innovative and sustainable economy

2.3 Project Justification

2.3.1 Project Benefits

The Project will deliver benefits to the local community including:

- Employ up to 450 people during construction of the Project;
- Approximately 16 new permanent jobs in steel manufacturing and 140 new permanent roles associated with the new wind tower manufacturing facility, during the future operations of the modernised Plate Mill and new wind tower manufacturing facility;
- Ongoing employment for approximately 1,000 workers in associated industries for local contractors performing ongoing maintenance activities during operation of the modernised Plate Mill and new wind tower manufacturing facility;
- The supply of steel products sourced sustainably as required by the *ResponsibleSteel* ™ certification of PKSW; and
- A capital investment of approximately $217-$250 million, including $55.4 million granted to BSL by the Federal government *(subject to finalisation of a funding agreement)*.

In addition, the Project will contribute to the ongoing sustainability of BSL's PKSW by:

- Consolidating and expanding Australian capabilities in steel manufacture to cater for renewable and defence sectors;
- Supporting the growing demand for BSL's business; and
- Diversification of the wind tower supply chain leading to further diversification of BSL's Port Kembla Operations.

By contributing to the sustainability of PKSW, the Project indirectly contributes to the significant benefits which are derived from PKSW at both the local and State level, such as the 4,500 jobs currently provided at PKSW and the adjacent Springhill works operated by BSL.

2.3.2 Site Suitability

The PKSW is considered suitable for the proposed Project for the following reasons:

- The Project is compatible with the existing industrial land uses on and surrounding the PKSW;
- The PKSW is easily accessible via Northgate entrance from Springhill Road which is connected onto the M1 motorway (Princes motorway) via Masters Road;
- The Project is consistent with the IN3 and SP3 zoning. The Project will aim to meet the following objectives of the IN3 zone;
  - To provide suitable areas for those industries that need to be separated from other land uses;
  - To encourage employment opportunities;
  - To minimise any adverse effect of heavy industry on other land uses;
  - To provide transport infrastructure and intermodal facilities; and
  - To allow a diversity of activities that will not significantly detract from the operation of existing or proposed industries.
- The Project will also align with the following objectives of the SP1 zone:
  - To provide for special land uses that are not provided for in other zones;
  - To provide for sites with special natural characteristics that are not provided for in other zones;
  - To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land;
  - To maximise the use of waterfront areas to accommodate port facilities and industrial, maritime industrial, freight and bulk storage premises that benefit from being located close to port facilities;
  - To enable the efficient movement and operation of commercial shipping and to provide for the efficient handling and distribution of freight from port areas through the provision of transport infrastructure;
  - To provide for port related facilities and development that support the operations of Port Botany, Port Kembla and the Port of Newcastle;
  - To facilitate development that by its nature or scale requires separation from residential areas and other sensitive land uses; and
  - To encourage employment opportunities.

3. THE PROJECT

This section provides a description of the Project and its indicative design, components, and operational features. The PKSW and surrounding area are also described, expanding on information from **Section 2.1.**

3.1 Project Area and Project Site

The proposed Project is situated within the PKSW (operated by BSL) which forms the Project Area. It is located at Five Islands Rd, Port Kembla, NSW, on the following legal lot description, Lot 1 of DP 606434. It currently contains BSL's existing Plate Mill facility and associated slab yard, plate rolling and plate processing facilities. The site context of the PKSW is illustrated in **Figure 2-1.**

The ASMAP Project Site location is entirely within the broader PKSW. The Project Site covers an approximate area of 18 ha, as displayed in **Figure 3-1** below. It has an elevation of approximately 5 - 12 metres ASL and is located within an extremely highly disturbed environment with minimal vegetation.

PKSW (Project Area)

F3-1

Drawing No:	0650342s_BSL_CR_G004_R3.mxd		Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Date:	21/10/2022	Drawing Size: A4	
Drawn By:	VN	Reviewed By: DS	Client: BlueScope Steel Limited

Coordinate System: GDA 1994 MGA Zone 56

0 100 200m

N

This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.

ERM

3.2 Project Description

The Project involves the construction and installation of a new Walking Beam Furnace and upgrades and installation of associated equipment at the Plate Mill, together with the construction of a new Wind Tower Manufacturing Facility within BSL's existing PKSW facility at Port Kembla, NSW. While Port Kembla is the preferred location for the Wind Tower Manufacturing facility, this location is subject to detailed road and transport studies being completed to confirm the site's suitability to overcome complex road logistical challenges. The Project has a total capital investment value of approximately $217-$250 million.

Present day operations at PKSW involve production of liquid iron at the blast furnace, which is transformed into crude steel at the Basic Oxygen Steelmaking (BOS) plant. The liquid steel is then cast into slabs. The solid slabs are conveyed to one of two plant areas within the Hot Mills area:

- The Hot Strip Mill, where the slabs are rolled into thinner strip; or
- The Plate Mill, where reheat furnaces and powerful rolling mills transform the slabs into plate steel.

The proposed upgrades to the Plate Mill which form part of the Project will not change the existing process (i.e., reheating of steel slab, rolling through the two (2) Stand Plate Mill, plate cooling, plate processing and despatch of plate).

The Plate Mill has previously produced 340,000 to 474,000 tonnes per year. This Project proposes to increase the throughput to 500,000 to 600,000 tonnes of plate per year, depending on the product grades produced.

The specific works associated with the Project include:

- Installation of a new walking beam furnace, replacing two pusher furnaces servicing the Plate Mill;
- Upgrading the existing descaling system by provide higher capacity pumps. The upgrade will convert direct online starting motors to variable speed drive controlled motors. Removal of scale from the plate surface is done during rolling by spraying high pressure water onto the plates;
- Upgrading the electrical infrastructure, including the construction of a new 11 kilovolt (kV) system dedicated to the Plate Mill, various new low voltage (LV) distribution boards and switchrooms to house them, and upgrades to some other existing high voltage (HV) and LV infrastructure;
- Upgrading the Heavy Plate Cutting Facility by replacing existing plate cutters and upgrading to improve throughput and quality; and
- Installation of a new Wind Tower Manufacturing Facility. This facility will be located within an existing facility known as the KW building and an additional ancillary building in close proximity to the KW building. The proposed location of the Wind Tower Manufacturing Facility is however subject to detailed road and transport studies being completed to confirm the site's suitability to overcome complex road logistical challenges. The facility will include infrastructure to support plate cutting, joining and rolling, areas allocated for welding, blasting, painting area, internal fit out and storage of internal components (Refer to **Figure 3-3**). The works will include the installation of additional overhead cranes, realignment of internal rail lines. Some parts of the existing structure will be clad to enclose the exposed end of the KW building.

3.2.1 Existing Plate Mill Facilities

The existing Plate Mill was constructed at Port Kembla, NSW around 1963 for the production of steel plate. Existing facilities to enable the steel manufacturing process are described below.

3.2.1.1 Slab Yard

Warm slab from the caster is delivered via rail wagons to the Slab Yard. Slabs are unloaded via an overhead tong crane and stored in the slab yard until ready for cutting. When parent slabs (or 'skelp') are <400 °C, the skelps are cut into "child slabs" on the Gega cutter. Child slabs are then stored in the Plate Mill furnace charging area until required by the furnace.

3.2.1.2 Plate Rolling

There are currently two pusher style furnaces at the Plate Mill. Slabs are placed on the charge tables and are pushed into and through the furnace to achieve rolling temperature. Slabs exit the furnace from a brick hearth and drop onto roller tables. From there they are transported through a descaling box to remove scale before being rolled through the 2-stand reversing plate mill. Plates exit the Plate Mill via a cooling bed.

3.2.1.3 Plate Processing

Processing of plate is divided primarily into three processing lines:

- Rotary Line (Finishing Building) - Side trimming of 5-12 mm thick plate. End shear up to 32 mm thick plate;
- Guillotine Line (Finishing Building) - Side trimming and end trimming of plate up to 32 mm;
- Heavy Plate (Normaliser Building) - Oxy cutting up to 250 mm thick plate. Direct despatching uncut plate; and
- Additional Plate Processing is undertaken via the Plasma cutter (Finishing Building) and the Laser Plate area (Despatch Building).

Finally, plate storage and dispatch occurs from various points in the process:

- Heavy plate is transferred from the Normaliser Building to the outdoor storage area prior to being despatched via road or rail; and
- For the Rotary and Guillotine Lines, plate is despatched directly from the Finishing Building or transferred to the Despatch Building where it is sent to customers via road and rail.

3.3 Project Design and Components

The Project is referred to as the Advanced Steel Manufacturing Precinct (ASMAP) and comprises:

- Within the existing Plate Mill:
  - The construction of a new Walking Beam Furnace to replace two existing pusher style furnaces;
  - Upgrades to the descaling system and electrical infrastructure;
  - New equipment for the processing of heavy plate, including oxy cutters, a transfer conveyor, cranes and other ancillary equipment;
- A wind tower manufacturing facility; and
- All ancillary infrastructure to enable completion of ASMAP, including but not limited to internal roads, hardstands, construction compounds and laydown areas.

The key components for the Plate Mill Furnace and associated infrastructure upgrades are displayed in **Figure 3-2** below. Further details of the Wind Tower Manufacturing Facility component of the Project are contained in **Section 3.3.7**. Refer to the preliminary design drawings in **Appendix H** for further detail on the dimensional features of the Project.

SPRINGHILL ROAD

Descaling Pumphouse

Stand 2

Motor Room North - Switchroom

Stand 1

High Voltage Switchroom

Descaling Box

Nitrogen Store

Motor Room South - Switchroom

New Furnace No.3

The Court Yard

Legend

Site Boundary

Site Layout

Minor Road

Source:
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022

Plate Mill Process Components

F3-2

Drawing No:	0650342s_BSL_CR_G009_R2.mxd		Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Date:	21/10/2022	Drawing Size: A4	
Drawn By:	VN	Reviewed By: DS	Client: BlueScope Steel Limited

Coordinate System: GDA 1994 MGA Zone 56

0 20 40m

N

ERM

3.3.1 Plate Mill – Furnace

The Plate Mill presently utilises two COG fired pusher furnaces where slabs are pushed into the furnace which in turn push other slabs through the furnace. The slabs move on the hearth and as slabs are heated, the hot steel oxidizes and forms scale. Once the slabs move through the furnace, scale can be ground into the steel slab surface, causing quality issues ('rolled in wire') that need to be rectified after the plate rolling and plate cooling has occurred. Slabs exit the furnace and fall under gravity onto roller tables that transfer the slab from the furnace to the Descaling Box and then onto Stand 1 (Refer to **Figure 3-2**).

The proposed Project intends to replace both existing furnaces with one (1) new walking beam furnace, which will be located adjacent to the existing furnaces. Given that the plate rolling process operates 24/7, installation of the new furnace will not alter the operational hours in the facility. The existing furnaces including the stacks, will be decommissioned and made safe.

The current furnaces run as dual or single furnace operations depending on production and maintenance requirements. The dual furnace operations deliver nominally 95 t/hr of hot slab with single furnace operations able to deliver nominally 72 t/hr.

The installation of the new walking beam furnace will include:

- Excavation of area nominally 30 m by 50 m and up to 8 m below mill floor;
- Piling (200 Universal Bearing Piles (UBP)) and foundation works, with density of piles to be confirmed during furnace design;
- Enclosing the area between two existing buildings to house the new furnace;
- Erecting a new stack which depending on the preferred design would be either an induction stack (i.e. forced ventilation) of up to 45 m height or a natural draft stack of up to 82 m height (as depicted in **Appendix H**). Additionally, **Appendix E** includes viewpoints of the PKSW showing the location of the proposed new stack. The new furnace will have low nitrogen oxide (NO_X) burner technology; and
- Installing a new Walking Beam Furnace to provide nominal 100 t/hr of heating. The furnace will include Natural Gas fired pilots and Coke Ovens Gas fired main burners. The new furnace is expected to provide a 40% reduction in gas consumption compared to current usage. There will be a slight increase in natural gas usage for the pilot burner (during furnace light up).
- Relocation of existing services to facilitate connection of the new furnace.

The existing furnaces include once through saltwater cooling where water is pumped from the interworks saltwater pump station and discharged at the licensed discharge point to Allans Creek at a rate of approximately 1800 kL/ hr from both furnaces. The new walking beam furnace will no longer use once through saltwater cooling, reducing the volume of water discharged to the Plate Mill Drain and thus the heat load on the saltwater discharge into Allans Creek. The furnace instead will use a closed loop system, utilising industrial fresh water. The closed loop system includes a head tank, water basin, air cooled heat exchangers and pumps. Blowdown of the water is anticipated to be minimal and estimated to be approximately 1.5 kL per year which will enter the Plate Mill recirculated system. This in turn blows down to the Hot Strip Mill Blowdown system.

The main furnace equipment changes are summarised in **Table 3-1** below:

Table 3-1 Furnace Equipment Changes in ASMAP

Existing Furnaces	Proposed New Furnace	Potential Impact
2 Combustion Air Fans (1 per furnace)	2 Combustion Air Fans (1 main, 1 standby)	Reduction from 2 fans in operation (dual furnace ops) to 1 fan
3 Dilution Air Fans (2 for furnace 1, 1 for Furnace 2)	1 Dilution Air Fan	Reduction from 3 fans in operation (dual furnace) to 1 fan
48 burners (24 per furnace)	Up to 40 burners	Ultra-Low NOX burners, can utilise hydrogen fuel, higher gas efficiency
COG Pressure at interworks pressure (4kPa)	COG booster fan	Additional fan to improve heating performance
Stack	Stack with forced induction fan or natural draft	Additional fan to manage furnace pressure and allow stack height to be in line with existing stack heights
COG offtake flare line	6 pilot burners	Significant safety improvement during furnace light up and heat up. Slight increase in natural gas usage during light up
	Pilot Air blower	Additional fan to improve safety performance during furnace light up and heat up
Salt water pumped from Energy Services (Interworks) and supplies cooling water to each furnace for once through cooling	3 Emergency Cooling Water Pumps (2 main, 1 standby)	Replaces pumps used at Energy Services (and long water supply pipes)
	2 sets Air coolers (up to 18 fans in total)	Additional fan sets to cool water. Removes need for salt water to discharge directly to drain
	Emergency Tank and Water Basin	Additional footprint to hold water in event of emergency e.g., power outage to supply cooling water to furnace
	2 Dosing Pumps	Additional pumps to reduce corrosion risk of pipework to maximise life of pipes and equipment
	2 sets Air coolers (up to 18 fans in total)	Additional fan sets to cool water. Removes need for salt water to discharge directly to drain
	Emergency Tank and Water Basin	Additional footprint to hold water in event of emergency e.g., power outage to supply cooling water to furnace
	2 Dosing Pumps	Additional pumps to reduce corrosion risk of pipework to maximise life of pipes and equipment

Advantages of the new furnace installation:

- Improved energy efficiency from the new furnace will free up additional COG for electricity generation to be used within PKSW;
- Improved air emissions due to low-NO_X burners;
- Elimination of saltwater cooling and adoption of closed circuit cooling systems;
- Reduced scale generation; and
- Improved product quality resulting in less rework and additional processing.

3.3.2 Plate Mill – Descaling

In Plate Mill operation, scale builds up on the slab surface when the heated slab is exposed to oxygen. It is necessary to remove scale before rolling by high pressure water sprays in the Descaling Box and spray bars at Stand 1 and Stand 2 (Refer to **Figure 3-2**). The descaling system is basically a high pressure water cleaning system that removes scale from the surface of the plate during the rolling process.

Details of the volume of pressurised water proposed for the descaling system and the wastewater treatment thereof is described further in **Section 3.4.4 (Water supply).**

The existing descaling system includes:

- Four (4) descaling pumps with 3 Megawatt (MW) capacity and powered by 4.2 MVA transformers are shared between the Hot Strip Mill (HSM) and Plate Mill to provide two operational pumps for Hot Strip Mill and one for the Plate Mill, with one spare to be a hot Standby Pump for either the Hot Strip Mill or the Plate Mill. The existing pumps utilise mechanical valving and piping to maintain pressure;
- The descaling box removes scale after heated slabs exit the furnace utilising spray headers in an enclosure delivering water at nominal 150 bar; and
- Manually adjustable sprays at Stand 1 and Stand 2.

The upgrade to the system is expected to improve the surface quality and provide redundancy in the system. The proposed upgrade for the Project includes:

- Separating the pressurised water supplies to HSM and Plate Mill from the descaling pumps;
- Installing two new 3.2 MW pump motors, in a Duty/Standby configuration, controlled by Variable Speed Drives including a 4.3 MVA transformer to provide and maintain 190 bar system pressure;
- Removal of existing descaling box and modifying foundations to accommodate the installation of a new descaling box; and
- Installation of new dynamically adjustable descaling spray headers for Stand 1 and Stand 2.

The upgrade to variable speed drives on the pump motors will increase energy efficiency by allowing the system to dynamically respond to process demand rather than operating at a constant fixed speed as currently occurs. Noise generated by the new pumps will be less than background noise currently generated by the pump house. A 10% reduction in water consumption for the base case design is also anticipated.

3.3.3 Plate Mill – Electrical Infrastructure

The upgrades to the electrical infrastructure include the construction of a new 11 KV sub-system dedicated to the Plate Mill, various new LV distribution and upgrades to the other existing HV and LV infrastructure.

A new 11 kV distribution system is required to be constructed in order to provide the necessary power and associated infrastructure for the proposed new equipment. This is due to the existing 11 kV system not having spare capacity to support any new distribution.

In addition to the HV extension, a new tie circuit will be implemented between Slab Mill 11kV Board and Plate Mill 11 kV Board. This is required to assist in supporting proposed increased loads (5-6 MVA) and increase operational security of the overall Hot Mills 11 kV network by completing the ring configuration of this network.

All aspects of the new distribution system, including switch rooms, will be installed and operated in accordance with relevant Australian standards and provisions of the Building Code of Australia (BCA).

An outline of the electrical upgrade works is listed below, with further details provided following:

- Relocation of HSM Descaling Pump supplies to the HSM Roughing Mill (frees up Plate Mill 11 kV capacity and infrastructure);
- Modification to Existing Plate Mill 11 kV Distribution Board (accommodate new extension board for new equipment);
- New 11 kV Extension Board and Substation (supplies New Furnace, Descaling, Plate Processing and Auxiliary equipment);
- New Descaling 11 kV Drive Supplies and Switch Room;
- New Furnace Electrical Infrastructure (new transformers (4 x 1 MVA), LV distribution and Switch room); and
- New Aux LV Supplies to support Heavy Plate Cutting, New Alternating Current (AC) Cranes in both Plate Processing and Proposed Wind Tower Manufacturing Facility.

3.3.3.1 Switch Rooms

New switch room structures are required to be constructed as described below.

HV Substation

A new 11 kV Sub Station will be constructed in the Plate Mill 'Red Square' area (refer to **Figure 3-2**) which will house an extension of the existing 11 kV Main Board and will comprise of a new HV Switch Room, 11 kV Switch Board and associated auxiliary systems such as battery backup and Supervisory control and data acquisition (SCADA).

The room size will be approximately 15 m x 6 m x 2.7 m.

New Furnace Switch Room

The furnace switch room will house all the LV Distribution Boards, Motor Control Centres and Control Panels required for operating. The structure will be a basement type room integrated into the civil foundations of the furnace. It will not be visible from ground level. Fire suppression, ventilation and water/flood management systems will be included.

The room size will be approximately 20 m x 10 m x 3 m.

New Descaling Switch Rooms

The Descaling system requires Motor Control Panels in two separate mill locations. Two Automation type switch rooms will be constructed as additional structures within the existing Plate Mill Motor Room. The existing Motor Room is not a suitable environment for modern electronic equipment due to dust and temperature, therefore these two new rooms are intended to create a suitable environment within the existing Electrical Motor Room.

The room sizes will be approximately 17 m x 10 m x 3.2 m each.

3.3.3.2 Distribution Boards

A new 11 kV switchboard will be purchased to supply the additional process loads associated with the new equipment. This board will be housed in the new HV Switch room. It will comprise of up to 15x panels/sub circuits.

For each new 11 kV/415V transformer described below in **Section 3.3.3.3**, a new 415 V Distribution Board will be purchased and commissioned. The purpose of these boards is to distribute and protect the required sub circuits for each new package of equipment. These boards will be specified to meet the latest Australian safety standards at a minimum.

The various new boards will be installed in the new switch rooms described in **Section 3.3.3.1**.

3.3.3.3 Transformers

New 11 kV/0.435 kV 1 MVA Transformers will be purchased to supply LV distribution. All transformers will be dry type, non-outdoor type. This transformer type requires installation in an enclosed room to provide protection from weather and elements although does not require any specific environmental control measures as they do not contain any flammable liquids such as that found in an oil type transformer.

The 7 x new transformers required are detailed in **Table 3-2**. below.

Table 3-2 Transformer Details

Function	Transformer Type / Duty Required	Quantity
Plate Mill Walking Beam Furnace (PM WBF) Equipment Package	Dry type IP2 x 1.0 MVA Air Natural Cooled / 1.2 MVA Air Forced Cooled	4
PM Descale Aux Equipment	Dry type IP2 x 1.0 MVA Air Natural Cooled	2
Plate Processing	Dry type IP2 x 1.0 MVA Air Natural Cooled	1

3.3.4 Plate Processing - Cutters

The existing Plate Processing includes two oxy cutters on a single 50m cutting bed.

The Project proposes to replace these cutters. The scope includes:

- The existing Oxy Cutters and Plasma Cutter will be decommissioned;
- Existing Oxy Cutters will be removed;
- Installation of one new high productivity Plasma Oxy Cutting machine with dust collection via baghouse with a 45-60 m long cutting bed in the Normaliser Building; and
- Installation of one new high productivity Plasma Oxy Cutting machine with dust collection via a baghouse with a 30 m cutting bed in the Despatch Building.

Modern technology upgrades will improve throughput and quality. Upgrades to the overhead cranes in the Normaliser will enable increased throughput. Additional improvements include:

- Slag Management to reduce manual handling of slag and swarf;
- Less waste through use of plasma technology; and
- Despatching plates to both internal and external customers.

3.3.5 Plate Processing - Transfer Conveyor

In order to create adequate space with the Despatch Building for the increased number of hot stacks, a new transfer conveyor will be installed to transfer plate from the Finishing Building to the Despatch Building. This will also provide ability to reverse feed product if required. The Transfer Conveyor will accommodate 24 m long plate.

Hot Stacking is a process where warm plate slowly cooled down to prevent quality issues on certain grades of plate. This is done by stacking warm plate on top of each other and placing a cover over the stacked pile of plate to reduce the rate of cooling.

3.3.6 Plate Processing – Cranes

The project includes a mixture of upgrades to existing cranes, complete crane replacements and installation of additional new cranes.

All crane removals consist of lowering the existing crane to the ground and cutting into scrap. Cranes will be recycled at Port Kembla, all metals separated and salvaged.

Existing old cranes are powered from Direct Current (DC) live rails, weighing approximately 200 tonne each.

New cranes typically require AC Drives and will either require the installation of new AC crane live rails or involve a DC to AC conversion on-board the crane. New cranes are to be Siemens PLC controlled, or suitable equivalent, future proofed for potential automation capability with encoders on all motions, laser positioning, anti-collision equipment.

New magnet beams or plate lifters will be required for the crane replacements. There will be an engineering assessment of potential reuse of the existing magnet beams where practical.

The current cranes are cabin controlled, twin hoist with magnet lifting beams (18 tonne self-weight). The plate lifting capacity is 20 t. New cranes will be twin hoist, on a single wide trolley, with overall 40-50t capacity (30 t Plate + 18 t magnet beam). Crane class and speeds will match existing cranes. Design life will be 25 years minimum. There is the potential for heavier plate capacity (up to 25 t) if a new magnet beam is lighter than existing 18 t.

The two existing scale pit cranes are not included in the project scope. Details of the scope of cranes for the Project is provided below in **Table 3-3**.

Table 3-3 Scope of Cranes

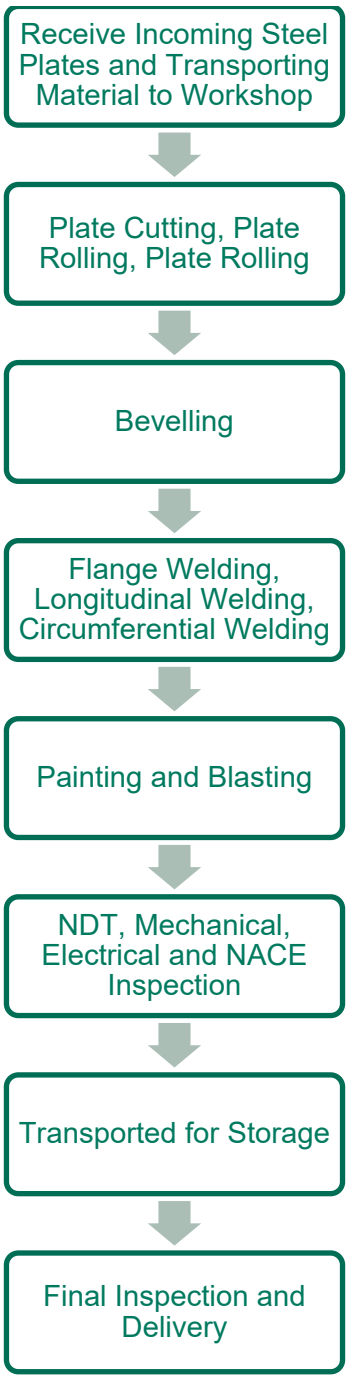
Location	Existing Crane	Proposed Changes
Normalising Building	F696 Overhead Crane (#6)	Upgrade hoisting electrics to provide fine motor control
	#7 Overhead crane	Additional new remote controlled crane, with lower classification and speeds
Plate Finishing Building	F677 Overhead Crane (#3)	Replace with new cabin controlled crane with modern equivalent crane
	F678 Overhead Crane (#4)	Upgrade existing crane electrics, magnet beam, cabin (optional)
	F1097 Overhead Crane (#5)	Upgrade existing crane electrics, magnet beam, cabin (optional)
	#2 Overhead Crane	Additional new cabin controlled crane.

3.3.7 Wind Tower Facility – Infrastructure

The existing KW building is 305 m in length and 40 m wide. The building is partially clad, with the northern 120 m end of the building exposed with elevated overhead crane runway rails.

The new wind tower manufacturing facility will receive incoming steel plates which will undergo a series of processes including plate cutting and bevelling before being transferred to the rolling and welding sections. Flange fitment is done after which the wind tower sections move into the blasting and painting sections of the facility. Following the mechanical and electrical inspections, the wind towers will be transported for storage before final inspection and delivery.

Detailed road and transport studies will be completed to confirm the site's suitability to overcome any complex road and logistical challenges from being located at Port Kembla.



The existing building is used by Toll Logistics to load and unload road and rail transport. The building includes existing services, power, water, and sewer.

The works for the new wind tower manufacturing facility includes:

- Enclosing/cladding of the exposed 120 m of the KW building;
- Building extension – 135 m x 27 m additional annex buildings, storage shed, offices and amenities;
- LED Lighting;
- 11 new cranes – 7 x 60 t, 2 x 40 t, 2 x 30 t – medium duty, heavy structure;
- 440 m AC live rail;

- Installation of new wind tower manufacturing equipment including:
  - Plate cutting;
  - Plate joining;
  - Plate rolling;
  - Flange welding; Longitudinal welding;
  - Circumferential welding / Can doubling;
  - Grow lines; Quality Assurance (QA), welding and blasting area;
  - Blast and Prime area;
  - Painting area – heated paint booths;
  - Internals fit out area;
  - Dust Collection x 2 – blast / metallising and grit cleaning;
  - Steel grit recovery and cleaning area;
  - Paint storage and mixing areas;
  - Compressor house x 2 – blast room and plant air;
  - Gas storage areas (bottled process gas – welding, heating cutting);
  - Welding consumables storage area (controlled environment); and
- Internal component storage area. Services supply – natural gas, compressed air, electrical upgrade to provide high voltage connection to two 1 MVA transformers and LV distribution;
- New Office building for 30 people;
- New Amenities for 50 people / shift;
- New Storage facility – 5000 m^2;
- Road ways / parking infrastructure;
- Site security fencing / gates;
- Fire protection;
- Realignment of rail line immediately east of the KW building to facilitate the installation of additional ancillary buildings; and
- Establish the finished tower section storage yard:
  - Removal of earthen mounds and realignment of rail line;
  - Create new truck entry off Yampi Way and re-establish disused truck exit onto Yampi Way; and
  - Truck loading by mobile machines;

In order to enable the above, existing Toll Logistics operations will need to be relocated from KW Building to the Pickle Line Building. Additionally, a new container staging area and truck staging area will be established by repurposing the existing carpark and with minor realignment of internal roadways. Internal rail realignment will be required to facilitate the installation of buildings adjacent to the KW Building. The wind tower manufacturing facility is expected to generate up to 12 tower sections per week equating to up to 40,000 t per year. Each section will need to be transported by 12 oversized truck movements each week, exiting onto Springhill Road via Tom Thumb Road. The Wind Tower sections are currently limited to 5.2 m diameter due to public transport road height restrictions. Detailed road and transport studies will be completed to confirm the site's suitability to overcome any complex road logistical challenges at Port Kembla (i.e., road height restrictions). **Figure 3-3** below demonstrates the components for the proposed Wind Tower Manufacturing Facility.


Blast Main Dust Collector
Machinery Dust Collector
Blash Machinery Room
Paint Mix
Blast Room Compressor House
Paint Storage
Plate Feed - Open Gantry Crane Area
Finish Tower Storage Area
Container Staging
Truck Staging Area
YAMPI WAY
Pickle Line - Proposed Toll Facility
Plate Processing - Enclosed Annexe
Delding Consumable Sotrage Room
Gas Storage Yard
Office & Amenities Building
Two Storey Office & Employee Facilities
Substation
Storage Warehouse
Legend
Site Boundary
Site Layout
Minor Road
Source:
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Wind Tower Manufacturing Facility Diagram
F3-3
Drawing No: 0650342s_BSL_CR_G010_R4.mxd
Date: 21/10/2022
Drawing Size: A4
Drawn By: VN
Reviewed By: DS
Coordinate System: GDA 1994 MGA Zone 56
0 20 40m
N
Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
ERM

3.3.8 Ancillary Plant and Equipment

The Project will also encompass miscellaneous ancillary upgrades to minor plant items and software, such as installation of scanners to allow plate tracking and inventory management and computer updates to allow “soft linking” of plate with orders.

3.4 Project Operations

3.4.1 Operational Specifications

The Plate Mill facility currently operates 24 hours a day, seven days a week except in the section processing plate from Cooling Bed to Despatch, which currently operates 24 hours a day, five days a week. The proposal for the Plate Mill upgrade is for 24 hours a day, seven days a week for all aspects of operations, including the plate processing operations from Cooling Bed to Despatch.

The operational specifications of the Project are summarised within **Table 3-4.**

Table 3-4 Operational Hours for the Project

	Existing Hours of Operation		Proposed Hours of Operation	
	Operations (including maintenance window)	**Maintenance Window**	**Operations (including maintenance window)**	**Maintenance Window**
Slab Yard	24 hr x 7 day/week	16 hour shift per month (3 Yard)	No Change	No Change
Plate Rolling – from Furnace to Cooling Bed	24 hr x 7 day/week	16 hour shift per month	No Change	No Change
Plate Processing – from Cooling Bed to Despatch	24 hr x 5 day/week	Staggered for different processing lines	24 hr x 7day/week	Staggered for different processing lines
Plate Despatch	24 hr x 7 day/week	Staggered for different processing lines	No Change	No Change
Wind Tower	N/A	N/A	24 hr x 7day/week	

Operation of the Plate Mill facility will require additional shifts in processing and despatch.

For the Plate Mill furnace and associated works, the Project will create up to 270 jobs during construction, and approximately 16 additional permanent operations and maintenance roles. Similarly, for the new wind tower manufacturing facility, the Project is anticipated to create up to 180 jobs during construction and approximately 140 permanent operational roles.

Any proposed workforce increases to the PKSW facility, inclusive of the total car parking requirements for the proposed Project works at PKSW, will be reviewed as part of the assessment of the Project

3.4.2 On-site Storage

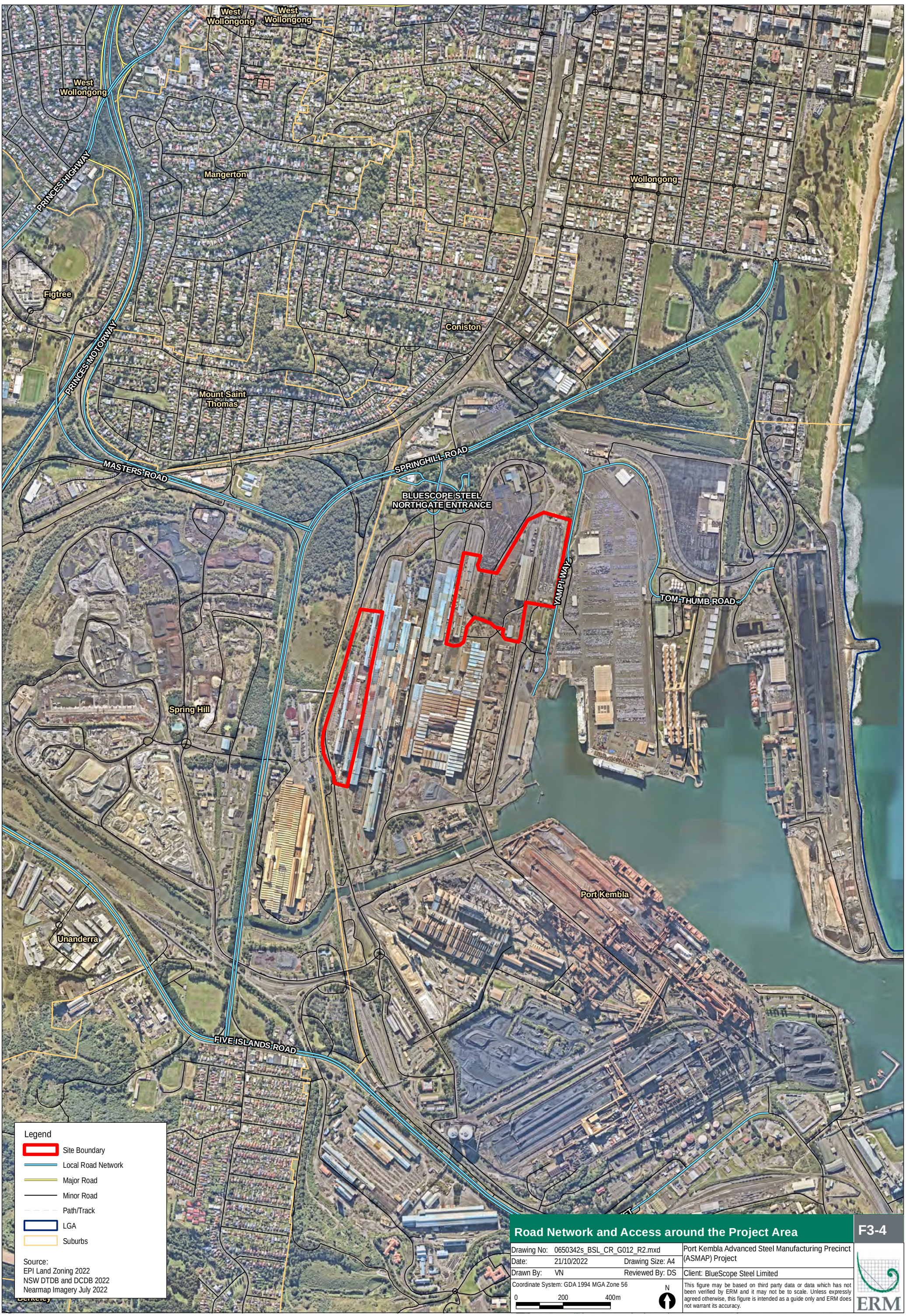
The Plate Mill will utilise the existing storage areas for raw slab and finished plate.

The Wind Tower facility (Refer to **Figure 3-3**) will include establishment of new storage facilities to store the following:

- Flange Storage;
- Plate Storage;
- Gas Storage;
- Welding Consumables Storage;
- Paint Storage;
- Internal Component Storage; and
- Finished Tower Section Storage.

3.4.3 Traffic Movements

All the roads surrounding the Project Site primarily cater to industrial and port-related land uses around the PKSW site. The Project Site is bound by Springhill Road (classified State Road no MR581) to the north and Five Islands Road (classified State Road no MR295) to the west and south, both of which form part of the B65 that connects the Wollongong CBD to Port Kembla. All sectors of PKSW are internally linked by road; the primary accesses to PKSW is provided via the Springhill Road entrance at PKSW Northgate, which is an approximately 180 m local private road. The road network and access surrounding the PKSW and Project Site are shown in **Figure 3-4.**


West Wollongong
West Wollongong
West Wollongong
PRINCES HIGHWAY
Mangerton
Wollongong
Figtree
PRINCES MOTORWAY
Coniston
Mount Saint Thomas
MASTERS ROAD
SPRINGHILL ROAD
BLUESCOPE STEEL NORTHGATE ENTRANCE
YAMPI WAY
TOM THUMB ROAD
Spring Hill
Port Kembla
Unanderra
FIVE ISLANDS ROAD
Legend
Site Boundary
Local Road Network
Major Road
Minor Road
Path/Track
LGA
Suburbs
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Road Network and Access around the Project Area
F3-4
Drawing No: 0650342s_BSL_CR_G012_R2.mxd
Date: 21/10/2022
Drawing Size: A4
Drawn By: VN
Reviewed By: DS
Coordinate System: GDA 1994 MGA Zone 56
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Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
ERM

The existing road traffic fleet at the PKSW consists of Floats (which can carry up to 75 t), Tri-axles (up to 25 t limit), B Doubles and Rigid vehicles. Road despatch rates for the existing Plate Mill operations average around 14,000 t per month and peak at 18,000 t per month, which equates to approximately 900 trucks per month, assuming an average load of 20 t.

There will be an increase in operational road and rail traffic to and from the PKSW as a result of the Project, with up to 26,000 t per year of additional steel plate being transported by truck and up to an additional 24,000 t per year transported by rail. In addition, there will be up to an additional 50,000 t per year of completed wind tower sections being transport by road – typically transported by oversized truck movements. There will be only a small increase, up to 5 trucks per week on average, of inbound traffic to provide deliveries for Wind Tower consumables. Expected road traffic movements and loads associated with the operation of the Project are outlined in**Table 3-5.**

Table 3-5 Proposed Road Traffic Movements

Truck movement	Material	Average truck load (tonnes)	Proposed movements per week (approx.)	Increase from existing movements (approx. Average per week)
Internal float	Plate for Wind Tower	60	0	24-58
Oversized	Finished Tower sections	100	0	12
External flat bed	Plate	20	225	27-52
Inbound	Paint/welding/other consumables	10	0	5

In Gauge (IG) means plate less than 2500 mm wide whereas Out of Gauge (OG) means plate greater than 2500 mm which applies to road and rail networks. The PKSW rail traffic fleet consists of 50 IG wagons and 55 OG wagons carrying approx. 60-65 t per wagon. Tilt wagons are used for OG plate, while Flat wagons are used for IG plate. Rail despatch rates average around 13,500 t per month and peak at 17,000 t per month. Rail freight includes other products from PKSW including hot rolled coil, coated products, beams on other wagons. It is expected that the increased volumes will result in additional wagons being used, but no additional services. Refer to **Table 3-6.**

Table 3-6 Proposed Rail Traffic Movements

Rail movement	Material	Average rail load (tonnes)	Proposed movements per week (approx.)	Increase from existing movements (approx. Average per week)
Wagons (South/west bound)	Plate	Up to 60-65 t per wagon	Up to 7 services per week	No additional services. Only 3 additional wagons per service each week
Wagons (North bound)	Plate	Up to 60-65 t per wagon	Up to 5 services per week	No additional services. Only 3 additional wagons per service each week

The Plate Mill will utilise existing internal rail transport to receive steel slab. There will be an increase in plate despatched internally via truck, as well as external trucks and external rail movements

The Wind Tower facility will utilise:

- Steel plate produced onsite with no external traffic movements;
- Flanges delivered by vessel; and
- Consumables (paint, welding consumables) utilising approximately five (5) trucks per week.

- It is anticipated that the Wind Tower facility will deliver on average 12 finished wind tower sections per week using oversized truck movements. Internal truck movements are utilised to transport the steel scrap from the Plate Mill to the recycling area.

3.4.4 Utility Supplies

Power Supply

The proposed upgrades at the Plate Mill will require a new 11 kV distribution system that will be constructed to provide the necessary power. Further description of the same and associated infrastructure for the proposed new equipment.is provided in **Section 3.3.3** of this Scoping Report.

The Wind Tower facility is expected to utilise existing power infrastructure with the provision of new distribution boards to accommodate the new points of supply for the Wind Tower manufacturing equipment.

Coke Ovens Gas (COG) Supply

COG is currently supplied to the two existing furnaces at the Plate Mill at 4 KiloPascal (kPa) and ambient temperature (approximately 20 ^{o}C). It is the fuel source for combustion inside the furnace to heat the slabs.

The new furnace will use the coke ovens gas supply from Furnace 2 (tee-piece to be installed after Furnace 2 water seal and slip plate) and supply the burners. The COG supply will be provided at a maximum flow rate of 8500 Nm^3/hr. The new COG pipe run to the new furnace will be approximately 50 m.

The existing COG supply to the 2 current furnaces will be safely isolated once decommissioned.

The new COG system will include instrumentation, seal pots (for condensate collection) and isolation valving.

The COG system will be compliant to AS3814*: Industrial and Commercial Gas-Fired Appliances*.

Natural Gas Supply

Natural gas is used in the Plate Mill roll shop for heaters and burners. It is supplied via a 2-inch pipe at 300-400 kPa and ambient temperature (approximately 20 ^{o}C). It will be used to fuel pilot burners for ignition inside the new Walking Beam Furnace with an estimated flow of 10 Nm^3/hr. The existing natural gas supply to the roll shop is adjacent to the proposed location of the new furnace, hence an additional 50 m (approximately) of new pipe for the natural gas to the pilots will be provided.

The natural gas system will be compliant to AS3814 and be certified by the necessary authorities.

Water Supply

The water supply for the proposed ASMAP Project will be provided via the existing industrial water supply at the PKSW. Industrial water is a mix of both recycled water from the Sydney Water operated Wollongong Water Recycling Plant and unfiltered Avon Dam water. The proportion of these components and the relative use within the PKSW is shown in **Figure 3-5**.

Metering and capacity requirements for the ASMAP Project will be explored further during the EIS phase.

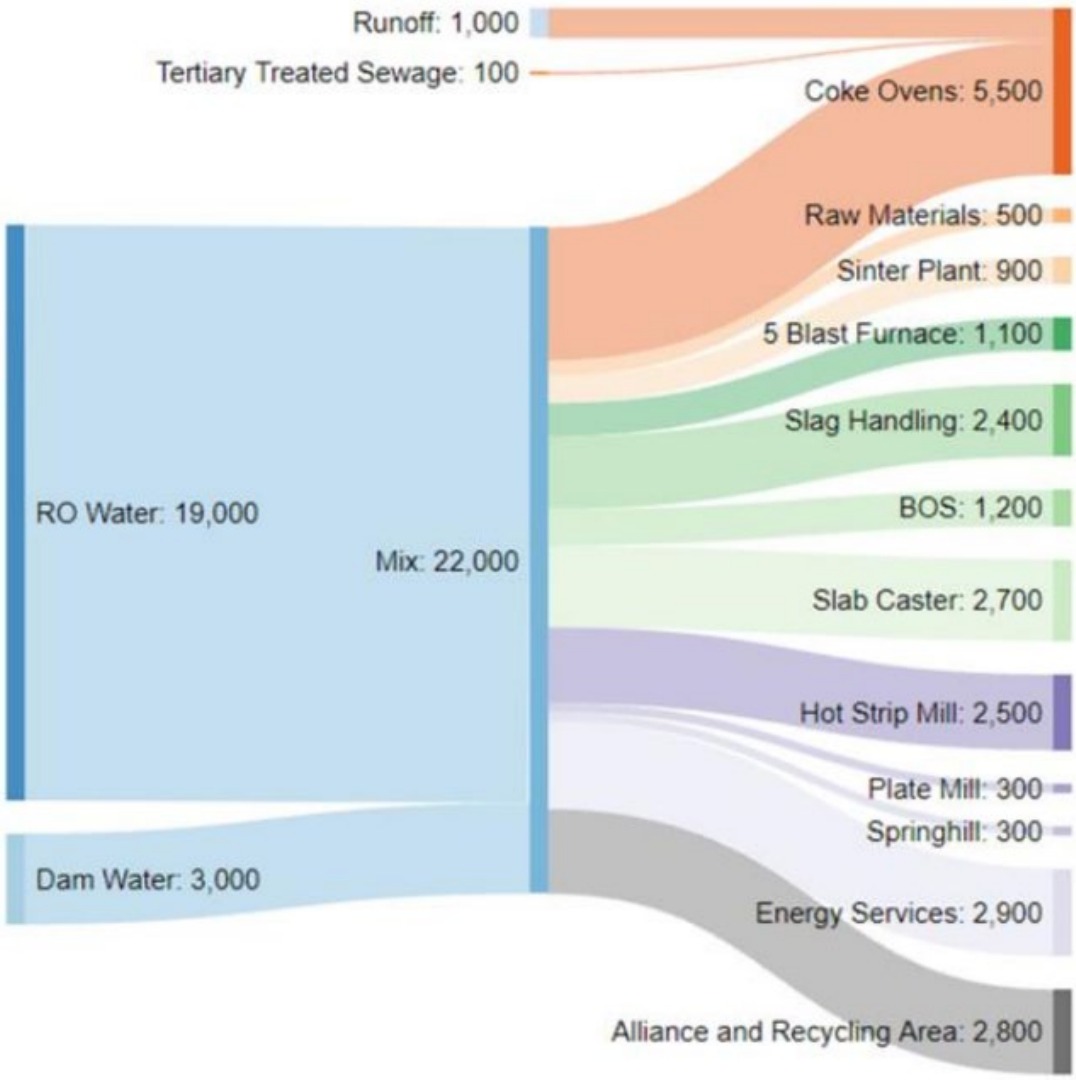


Figure 3-5 Existing Site Water Balance at PKSW

Furnace cooling will be a closed-circuit system. The furnace will no longer use once through saltwater cooling, reducing the volume of water discharged to the Plate Mill Drain (from the current volume of approximately 1800 kL/hr from both furnaces) and the heat load on the saltwater discharge into Allans Creek. The furnace will use a closed loop system, which incorporates industrial fresh water. The closed loop system includes a head tank, water basin, air cooled heat exchangers and pumps. Blowdown of the water (minimal, estimated to be approximately 1.5 kL per year) will enter the Plate Mill recirculated system, which in turn blows down to the Hot Strip Mill Blowdown system.

The closed loop cooling water system will recirculate approximately 500 m^3/hr of cooling water, with a temperature change of approximately 15 ^oC, and a delivery pressure of 4 bar. Industrial water will provide minimal make up to maintain a consistent flow. The head tank will provide emergency cooling water to the furnace as required.

The recirculated water system at the Plate Mill uses general service water (600 kPa) to supply the mill for cooling and descaling. The system includes scale pits, polymer dosing, a clarifier and cooling tower. The water treatment plant removes solids (via scale pits, clarifier and polymers) as well as cooling down the water temperature by approximately 5 ^oC.

The upgrade to the descaling system and new furnace is estimated to have minimal overall impact to the water balance. A simplified diagram of the water balance of the Plate Mill recirculated water system is shown below in **Figure 3-6**.

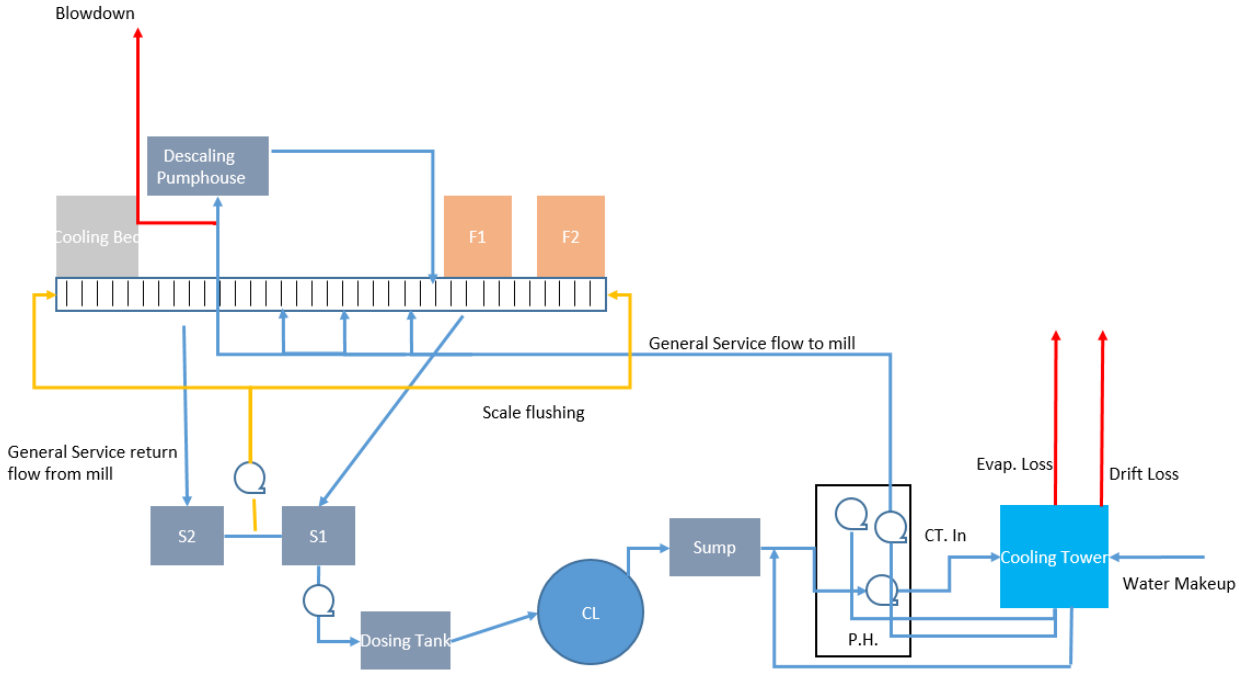


Figure 3-6 Plate Mill Water Balance Diagram (Recirculated Water System)

A breakdown of the total water flow from and to the Plate Mill is presented below in **Table 3-7**.

Table 3-7 Total Water Flow for the Plate Mill

Stream	Comment	Result (KL/h)
General Service flow to Plate Mill	Flow through the Plate Mill	1145
Scale flushing		355
Total flow to Plate Mill		1500
Water Make Up	Water added to system (Industrial Fresh Water)	21
Flow from Plate Mill to Water Treatment Plant		1363
Blowdown to Hot Strip Mill		8.5
Balance	Includes evaporation and drift losses from Cooling Tower	108
Total flow from mill		1500

Total flow to the Plate Mill is made up of general service (1145 kL/hr) and scale flushing (355 kL/hr) while total flow from the Plate Mill incorporates make up water, flow to the water treatment plant, hot strip mill blowdown and balance.

General Service water and scale flushing are used throughout the Plate Mill for descaling, flushing and cooling. Some of the general service water enters the descaling pump house, where it is boosted to between 150 to 190 bar, before use in descaling applications.

All water drains to the scale pits where the scale is removed. The water is then treated in the water treatment plant. Treatment includes flocculation via a polymer, solid settling via the clarifier, cooling via the cooling tower, and bacteria treatment through chemical addition. The treated water is recirculated back through the Plate Mill.

A small amount of the recirculated water is blown down from the Plate Mill to the Hot Strip Mill where it combines with the Hot Strip Mill recirculated water system. This water is used around the Hot Strip Mill for descaling, cooling and flushing. Water treatment at the Hot Strip Mill includes a settling pond, gravel filters, cooling towers and chemical treatment. After water treatment some of this water can be either transferred to the BOS for reuse or discharged to the Slab Mill drain (EPL 6092 Licenced Discharge Point No. 80).

Under exceptional circumstances, such as high rainfall events, some treated water may be discharged to the Plate Mill Cooling Tower Drain from the Cooling Tower basin (EPL 6092 Licenced Discharge Point No. 81).

There is not expected to be a significant change to the discharge of water to drain as a result of the upgrade to the Plate Mill descaling system.

The system makes up approximately 21kL/hr of Industrial Fresh Water.

The General Service water flow to the Plate Mill is 1145 kL/hr and scale flushing is 355 kL/hr, leading to an overall usage of 1500 kL/hr.

The return flow from the Plate Mill is 1363 kL/hr, and 8.5 kL/hr is blown down to the Hot Strip Mill. The balance of water is a combination of make-up and losses including evaporation and drift losses.

3.5 Project Staging

For the proposed Project, a timeline of four (4) years is expected from the commencement of the Project feasibility stage to the commencement of operations. The anticipated staging of the Project is summarised in Table 3-8**.**

Table 3-8 Project Staging

Stage of Project	Estimated Date/Year of Completion
Project Feasibility (in progress)	Q2 2023
Planning and Approvals Process (in progress)	Q2 2023
Construction	Staged from 2023 to 2025
Commissioning and Operations	Staged from 2023 to 2026

3.6 Phases

3.6.1 Construction

Once all necessary planning approvals for the proposed Project are obtained and any pre-conditions met, construction works are anticipated to begin in Q3 2023. All on-site construction activities are estimated to take approximately 33 months to complete, including commissioning of the Project. During the construction phase of the Project, a peak workforce of up to 270 full time equivalent employees for the Plate Mill upgrade works and up to 180 full time equivalent employees for the Wind Tower Manufacturing Facility is anticipated.

Construction and operation of the Project will require a range of skills including engineering, trades (electrical, mechanical, construction), transport, building material providers, equipment operators, consultants and administrative staff.

The supply and construction of the new furnace is the critical path for this Project. Construction works will commence during planned Plate Mill outages where there are interactions with the Plate Mill, such as removal of the existing Descaling box and relocation of services. Construction activities with minimal interaction with the Plate Mill will occur in parallel with Plate Mill operations during the hours of 7 am and 6 pm during weekdays and 7 am to 5 pm on weekends during peak construction works. There may periods of 24 hour construction for critical activities such as the installation of the descaling box or installation of the new furnace charge end which can only occur during planned Plate Mill outages.

Early construction activities may include the installation of cranes and cutters using equipment that is typically used during regular onsite maintenance activities e.g., mobile cranes.

A description of the construction stages, the likely equipment and machinery to be used, and the proposed duration of each stage for construction of the new furnace, processing equipment and all ancillary infrastructure is outlined in **Table 3-9** below.

Table 3-9 Construction Staging and Equipment

Construction Stage	Description	Construction Equipment	Duration
Cutters	■ Installation of Cutters	■ Excavators ■ Mobile and overhead cranes ■ Truck movements for materials delivery	Three (3) months
Cranes	■ Installation of overhead cranes	■ Mobile cranes ■ Truck movements for materials delivery	Staggered over three (3) years
Descaling Pumps	■ Installation of pumps	■ Mobile Cranes ■ Truck movements for materials delivery	Two (2) months
Descaling Box	■ Removal of old and installation of new Descaling Box	■ Mobile Cranes ■ Truck movements for materials delivery	One (1) month
Electrical infrastructure	■ Installation of Switchrooms ■ Installation of Transformers & Electrical Panels	■ Mobile Cranes ■ Excavators ■ Truck movements for materials delivery	Staggered over two (2) years
Roller Tables	■ Roller tables ■ Transfer table ■ Turnover table	■ Excavators ■ Dump Trucks ■ Mobile Cranes	Staggered over two (2) years
Furnace Foundation works	■ Excavation ■ Piling ■ Removal of soil.	■ Truck floats ■ Excavators ■ Dump Trucks ■ Piling rig ■ Semi-trailers for material delivery ■ Concrete pump and concrete trucks ■ Mobile cranes varying in size from up to 300T	Seven (7) months

Construction Stage	Description	Construction Equipment	Duration
Erection of furnace	■ Crane lifts in the laydown area and within the building	■ Multiple Mobile cranes, varying in size up to 300 t ■ Truck floats	Six (6) months
Wind Tower buildings	■ Establish new and modify existing buildings including cranes	■ Truck floats ■ Excavators ■ Dump Trucks ■ Mobile Cranes ■ Semi-trailers for material delivery ■ Concrete pump and concrete trucks ■ Elevated Work Platforms	Six (6) months
Wind Tower Road and Rail works	■ Realign road and rail ■ Establish truck staging area	■ Truck floats ■ Excavators ■ Dump Trucks ■ Road working equipment ■ Rail track machinery ■ Semi-trailers for material delivery ■ Concrete pump and concrete trucks	Six (6) months
Wind Tower equipment installation	■ Installation of Wind Tower Manufacturing equipment	■ Mobile Cranes ■ Truck movements for materials delivery	18 months

3.6.2 Operations

Plate Mill operations will continue as they have done for the foreseeable future. During operation of the Project, the Plate Mill will operate on a 24 hour basis, utilising 2 x 12 hour x 7 days shift patterns. The Wind Tower Manufacturing Facility, once completed, is proposed to be operated on a 3 x 8 hr x 7 day shift pattern. During operation of the Project, the workforce at PKSW will increase by approximately 16 new jobs in the Plate Mill facility, up to 140 permanent roles associated with the new Wind Tower Manufacturing Facility and up to 1,000 more in associated industries.

3.6.3 Decommissioning and Rehabilitation

Detailed discussion on the decommissioning and rehabilitation activities for the Project will be presented during the EIS stage of the Project.

3.7 Project Alternatives

Alternatives to the Project have been explored, including alternative site location and layouts.

3.7.1 Alternative Site Locations and Alternative Site Layouts

There were no alternative site considerations for the Plate Mill upgrade, however, consideration was given to alternative site layouts, including:

- Furnace Location –consideration was initially given to a location immediately adjacent to the existing furnaces; however, this was deemed too high a risk during construction; it would also require the existing furnace 2 to be turned off for a significant portion of the construction duration. The final location separates the construction of the new furnace from operating plant.
- Cutters – There were three options considered

- Option (i): Both cutters in the Normaliser Building;
- Option (ii): One Cutter in the Normaliser and one in the Despatch Building; and
- Option (iii): Both Cutters in the Despatch Buildering.

Option (ii) was chosen as it provides the greater operational benefit.

Potential site alternatives were considered for the Wind Tower Manufacturing Facility. Initial consideration was given to the Pickle Line Building (as shown in **Figure 3-3**) however, it was not considered to be operationally feasible, nor were any other sites within the PKSW considered operationally feasible. Hence the current location – the KW building within the PKSW - was selected as the potential site for the facility. While Port Kembla is the preferred location for the Wind Tower Manufacturing Facility, this location is subject to detailed road and transport studies being completed to confirm the site's suitability.

4. STATUTORY CONTEXT

This section outlines the key statutory requirements for the Project under the *Environmental Planning and Assessment Act* 1979 and other relevant NSW and Commonwealth legislation with regard to the *State Significant Development Guidelines – Preparing a Scoping Report* (DPIE, 2021a).

Relevant statutory requirements for the Project will be outlined in further detail within the EIS.

4.1 Power to Grant Consent

Approval for the Project will be sought under Part 4, Division 4.7 of the EP&A Act, which outlines the approval pathway for development deemed to be State Significant Development (SSD). Section 4.36(2) of the EP&A Act states:

> *(2) A State environmental planning policy may declare any development, or any class or description of development, to be State significant development.*

Power to grant consent for the Project is determined by *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP). Under the provisions of Clause 2.6 (1) of the Planning Systems SEPP, a development is classified as SSD if it is specified in Schedule 1 or 2:

> *(a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and*
>
> *(b) the development is specified in Schedule 1 or 2.*

Schedule 1, Clause 9 of the Planning Systems SEPP determines 'metal, mineral and extractive material processing' to be SSD if it meets the following criteria:

> *Development that has a capital investment value of more than $30 million for any of the following purposes—*
>
> *(a) metal or mineral refining or smelting, metal founding, rolling, drawing, extruding, coating, fabricating or manufacturing works or metal or mineral recycling or recovery,*
>
> *(b) brickworks, ceramic works, silicon or glassworks or tile manufacture,*
>
> *(c) cement works, concrete or bitumen pre-mix industries or related products,*
>
> *(d) building or construction materials recycling or recovery.*

The Project involves development for the purpose of steel manufacturing and will have a capital investment value of more than $30 million. Therefore, the Project is classified as SSD under Part 4 of the EP&A Act.

4.2 Permissibility

The permissibility of the Project is determined by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP). The PKSW is zoned *IN3 Heavy Industrial* and *SP1 Special Activities* pursuant to ***Chapter 5: Three ports—Port Botany, Port Kembla and Port of Newcastle*** of the Transport and Infrastructure SEPP.

Permissible uses of the IN3 zone are outlined in **Table 4-1** below.

Table 4-1 IN3 Land Use Table

Zone IN3 General Industrial	Description
Objectives of zone	■ To provide suitable areas for those industries that need to be separated from other land uses. ■ To encourage employment opportunities. ■ To minimise any adverse effect of heavy industry on other land uses. ■ To provide transport infrastructure and intermodal facilities. ■ To allow a diversity of activities that will not significantly detract from the operation of existing or proposed industries.
Permitted without consent	Environmental protection works
Permitted with consent	Depots; Food and drink premises; Freight transport facilities; Heavy industries; Port facilities; Roads; Transport depots; Warehouse or distribution centres; Waste or resource management facilities.
Prohibited	Any development not specified in item 2 or 3.

Permissible uses of the SP1 zone are outlined in **Table 4-2** below.

Table 4-2 SP1 Land Use Table

Zone IN3 General Industrial	Description
1. Objectives of zone	■ To provide for special land uses that are not provided for in other zones. ■ To provide for sites with special natural characteristics that are not provided for in other zones. ■ To facilitate development that is in keeping with the special characteristics of the site or its existing or intended special use, and that minimises any adverse impacts on surrounding land. ■ To maximise the use of waterfront areas to accommodate port facilities and industrial, maritime industrial, freight and bulk storage premises that benefit from being located close to port facilities. ■ To enable the efficient movement and operation of commercial shipping and to provide for the efficient handling and distribution of freight from port areas through the provision of transport infrastructure. ■ To provide for port related facilities and development that support the operations of Port Botany, Port Kembla and the Port of Newcastle. ■ To facilitate development that by its nature or scale requires separation from residential areas and other sensitive land uses. ■ To encourage employment opportunities.
Permitted without consent	Jetties; Moorings; Roads
Permitted with consent	Capital dredging; Environmental facilities; Environmental protection works; Maintenance dredging; Navigation and emergency response facilities; Neighbourhood shops; Port facilities; Wharf or boating facilities; Any other development not specified in item 2 or 4.
Prohibited	Artisan food and drink industries; Business premises; Caravan parks; Cemeteries; Centre-based child care facilities; Crematoria; Educational establishments; Entertainment facilities; Function centres; Funeral homes; Garden centres; Hardware and building supplies; Medical centres; Office premises; Places of public worship; Recreation facilities (indoor); Registered clubs; Residential accommodation; Respite day care centres; Restricted premises; Shops; Specialised retail premises; Tourist and visitor accommodation; Vehicle sales or hire premises.

Under the provisions of the land-use table under Chapter 5 of the Infrastructure and Transport SEPP ***Heavy Industries*** are permissible with consent within the *IN3 Heavy industrial* zone.

The proposed ASMAP Project meets the definition of “Heavy Industry”, is consistent with surrounding land uses and is a permissible land use for the Project Site.

4.3 Other Approvals

Other approvals required under relevant NSW and Commonwealth legislation (or which would be required if not for the classification of the Project as SSD) are detailed in **Table 4-3.**

Table 4-3 Other Approvals required under NSW and Commonwealth Legislation

Approval Category	Legislation	Requirement
Consistent Approvals Section 4.42 of the EP&A Act outlines that these approvals cannot be refused if necessary for carrying out an approved SSD and are to be consistent with the terms of the SSD approval.	Roads Act 1993 (Roads Act)	For any works undertaken within a road reserve, the Project will require consent from the appropriate roads authority under Section 138 of the Roads Act. The impacts of the Project on roads and traffic will be assessed within the EIS.
	Protection of the Environment Operations Act 1997 (POEO Act)	Under the provisions of Schedule 1, Clause 26 of the POEO Act, activities requiring an environment protection licence (EPL) include metal processing with a capacity to process more than 10,000 tonnes of metal per year. The Project is anticipated to meet this threshold, and therefore an EPL is required for the Project. The Project seeks to process up to 500,000 to 600,000 plate tonnes per year. EPL 6092 which is applicable to the current operations of PKSW may be revised to include/exclude the applicable scheduled activities associated with the Project.
Native Title	Native Title Act 1993 (NT Act)	Under Section 13 of the NT Act, an individual can apply to the Federal Court for a determination of native title. A review of the potential for native title will be undertaken for the Project in the EIS, however the Native Title Vision (NTV) online mapping tool (NNTT, 2022) currently indicates there are no Native Title claims over the PKSW.
EPBC Act Approval	Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Approval from the Minister for the Commonwealth Department of Agriculture, Water and the Environment (DAWE) is required for any action that will or is likely to have a significant impact on one or more Matters of National Environmental Significance (MNES). As discussed in **Section 6.4**, the Project development footprint does not support any threatened species or ecological communities and no significant habitat features have been identified. Based on the long history of vegetation clearance and disturbance within the PKSW, it is unlikely that the Project would result in any significant impacts on ecological values listed under the EPBC Act.
Other Approvals	Water Management Act 2000	The Project may require water access licences under the *Water Management Act 2000*. The soil and water assessment will identify whether any water access licences will be required for the Project.

Approval Category	Legislation	Requirement
	Biodiversity Conservation Act 2016 (BC Act)	The Project development footprint does not support any threatened species or ecological communities and no significant habitat features have been identified. Based on the long history of vegetation clearance and disturbance, it is unlikely that the Project would result in any significant impacts on ecological values listed under the BC Act. SSD applications are required to be accompanied by a Biodiversity Development Assessment Report (BDAR) under Section 7.9 of the BC Act. However, as the proposed development will not result in any significant impact on biodiversity values, a waiver to the provision of a BDAR under Section 7.9 of the BC Act has been requested.
	Contaminated Land Management Act 1997 (CLM Act)	The Project Site has a long history of heavy industrial use. The EIS assessment will include consideration of the extent to which contamination exists at the wider PKSW site, and any measures to be undertaken to ensure compliance with the CLM Act.
Approvals not required under SSD Section 4.41 of the EP&A Act states the following approvals, permits. are not required for an approved SSD.	Fisheries Management Act 1994	The Project will not require a dredging or reclamation work permit under Section 201, a marine vegetation regulation of harm permit under Section 205, or a passage of fish not to be blocked permit under Section 219.
	Heritage Act 1977	The Project will not require a Part 4 approval to carry out an act, matter or thing referred to in Section 57(1), or an excavation permit under Section 139.
	National Parks and Wildlife Act 1979	The Project will not require an Aboriginal heritage impact permit under Section 90.
	Rural Fires Act 1997	The Project will not require a bush fire safety authority under Section 100B, as the development does not involve subdivision for residential or rural residential development. A Bushfire Assessment will be prepared as part of the EIS
	Water Management Act 2000	The Project will not require a water use approval under Section 89, a water management work approval under Section 90, or an activity approval (other than an aquifer interference approval) under Section 91.

4.4 Mandatory Matters for Consideration

The consent authority is required to consider a range of matters when deciding whether to grant consent for the Project. These are referred to as mandatory considerations, which are detailed in **Table 4-4** below.

Table 4-4 Mandatory Considerations

Statutory Reference	Mandatory Consideration
Considerations under the EP&A Act and Regulation	
Section 1.3 - Objects of the Act	Pursuant to Section 1.3 of the EP&A Act, the Objects of the Act are: a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources, b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment, c) to promote the orderly and economic use and development of land, d) to promote the delivery and maintenance of affordable housing, e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats, f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage), g) to promote good design and amenity of the built environment, h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants, i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State, j) to provide increased opportunity for community participation in environmental planning and assessment.
Section 4.15 - Evaluation	Pursuant to Section 4.15 of the EP&A Act, the consent authority is required to take the following matters into consideration in determining a development application, which will be considered in the EIS: ■ Relevant environmental planning instruments including: – State Environmental Planning Policy (Transport and Infrastructure) 2021; – State Environmental Planning Policy (Planning Systems) 2021; – State Environmental Planning Policy (Resilience and Hazards) 2021; – State Environmental Planning Policy (Industry and Employment) 2021; and – Wollongong Local Environmental Plan 2009. ■ Relevant development control plans including: – Wollongong Development Control Plan 2009. ■ The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality; ■ The suitability of the site for the development; ■ Any submissions made in accordance with this Act or the regulations; and the public interest.
Considerations under other NSW legislation	
Biodiversity Conservation Act 2016 – Section 7.14	The Minister for Planning and Homes is required to take into account the impact of the development on biodiversity values as assessed in the BDAR. The Minister may (but is not required to) further consider under the Act the likely impact of the proposed development on biodiversity values. As the Project will not result in any significant impact on biodiversity values, a waiver to the provision of a BDAR has been requested under Section 7.9 of the BC Act.

Statutory Reference	Mandatory Consideration
Considerations under relevant Environmental Planning Instruments (EPIs	
State Environmental Planning Policy (Transport and Infrastructure) 2021	The Transport and Infrastructure SEPP is the relevant Environmental Planning Instrument for the Project. According to Section 2.7(1) under Part 2.1 of the Transport and Infrastructure SEPP, the above provisions prevail over any inconsistency in any other planning instruments, including the Wollongong LEP 2009. The EIS will address relevant components of the Industry and Employment SEPP including: ■ Section 2.1 – Aims of Chapter; ■ Section 2.10 – Zone objectives and land use table; and ■ Section 2.19 – Ecologically sustainable development (ESD).
State Environmental Planning Policy (Resilience and Hazards) 2021 – Chapter 3	Chapter 3 of the Resilience and Hazards SEPP assesses the potential hazards associated with the proposed development by providing definitions and guidelines for hazardous industry, offensive industry, hazardous storage establishments, and offensive storage establishments. In accordance with Clause 3.7 of the Resilience and Hazards SEPP, consideration will be given to current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development, including: ■ Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) 2021; ■ Assessment Guideline: Multi-level Risk Assessment (Department of Planning and Infrastructure, 2011); ■ Hazardous Industry Planning Advisory Paper No 6: Hazard Analysis (HIPAP No 6) (Department of Planning, 2011); and ■ Hazardous Industry Planning Advisory Paper No 7: Construction Safety (HIPAP No 7) (Department of Planning, 2011).
State Environmental Planning Policy (Resilience and Hazards) 2021 – Chapter 4	Chapter 4 of the Resilience and Hazards SEPP provides a statewide planning approach to the remediation of contaminated land. Under Clause 4.6 (1) of the Resilience and Hazards SEPP, a consent authority is required to consider whether a proposed development site is affected by soil or other contaminants before granting consent. ■ An assessment will be prepared as part of the EIS to determine the potential contamination risk associated with the Project. The assessment will take into consideration historical land use that may have resulted in contamination within and surrounding the PKSW.
Wollongong Local Environmental Plan 2009	The PKSW is situated within the City of Wollongong LGA, where the relevant LEP is the Wollongong Local Environmental Plan 2009 (Wollongong LEP). However, as the relevant EPI is the Transport and Infrastructure SEPP, the Wollongong LEP does not apply to the Project.
Considerations under Development Control Plans	
Wollongong Development Control Plan 2009	The Wollongong Development Control Plan 2009 (Wollongong DCP) is the relevant DCP that supports the controls contained within the Wollongong LEP under the provisions of Division 3.6 of the EP&A Act. Under Clause 2.10 of the Planning Systems SEPP, DCPs do not apply to SSD projects: *11 Exclusion of application of development control plans* *Development control plans (whether made before or after the commencement of this Policy) do not apply to—* *(a) State significant development, or*

Statutory Reference	Mandatory Consideration
	(b) development for which a relevant council is the consent authority under section 4.37 of the Act. The Project will be classified as SSD. As such, the Wollongong DCP does not apply and is not a mandatory consideration for the Project.
Considerations under existing licences and approvals	
Environment Protection Licence (EPL) No. 6092	The existing operations at PKSW are subject to the requirements of Environment Protection Licence (EPL) No. 6092 and due consideration will be given to the existing conditions in the EPL.

5. COMMUNITY ENGAGEMENT

5.1 Engagement Overview

5.1.1 Engagement Principles

Best practice engagement involves the community and stakeholders in all decision-making stages of a proposal. The community plays a role from conception, through the assessment process and on to the construction and operational phases of a proposal. Effective community consultation has three important functions:

- To facilitate deeper understanding of potential issues and decisions required for a proposal;
- To enhance the quality of decisions made for a proposal; and
- To allow people to contribute to decisions that affect their lives.

BSL's community engagement approach is based on living up to 'Our Bond', which is the company's set of guiding principles that outline how 'we choose to do what is right' and that 'our local communities are our homes'. BSL prides itself on upholding its strong reputation by being a good corporate citizen. In August 2020, BSL announced its new Purpose and Corporate Strategy, which reinforced the commitment to 'Strengthening our Communities'.

According to Reptrak, who produce the Corporate Reputation Index globally, BSL has a very 'Strong' reputation in Australia. Out of the Top 60 companies in Australia, BSL has consistently ranked in the top 10 to 20 and is the leading manufacturer/industrial company amongst the Benchmark 60.

5.1.2 Engagement Context

The engagement approach for the Project recognises the unique characteristics of Port Kembla Steelworks (PKSW), due to its positioning within the existing industrial precinct of Port Kembla. The PKSW operation was established in 1928 when the first (No.1) blast furnace was commissioned. Since then, the site has grown to house and activate heavy industrial steelmaking operations. Today, Port Kembla is an international trade gateway for bulk agricultural, construction, and mining industries and is home to the state's largest grain export terminal; it is also the state's second largest coal export port.

Port Kembla is a beachside suburb south of the centre of Wollongong LGA, and contains a variety of land uses including residential, heavy industrial and infrastructure. The suburb recorded a population of 5,088 people in 2021 (ABS, 2021).

5.1.3 Stakeholder Engagement Strategy

BSL has demonstrated a commitment to engaging proactively with the local community and gaining an appreciation for the community's needs, concerns and aspirations. To facilitate this commitment, BSL has developed a targeted Stakeholder Engagement Strategy (SES) attached as **Appendix B** to support the scoping stage and inform the EIS stage of the Project.

The engagement objectives in the SES are to:

- Facilitate targeted consultation with nearby neighbours and specifically identified-stakeholders;
- Gather community and stakeholder feedback to inform the scoping report;
- Identify and analyse any community and stakeholder concerns that need to be considered in the Project planning and delivery; and
- Support BSL in maintaining a positive corporate image.

5.2 Scoping Phase Engagement

5.2.1 Stakeholder Identification

The SES has been designed to enable community members to be part of the Project planning and development process and to provide them with the opportunity to engage in a meaningful way. Stakeholder identification was undertaken in the SES as part of the scoping phase for the Project, and a summary of the Project stakeholders is outlined in **Table 5-1**. The intention of the broader stakeholder assessment is to inform how communications and engagement will occur beyond the scoping phase to support the proposal through its planning and delivery.

An aerial assessment of adjacent and nearby neighbours indicated that the site's closest neighbours are existing BSL steelmaking sites. External to BSL's operations, nearby neighbours include NSW Ports, Inside Industry and BSL tenanted IN3 Heavy Industrial zoned premises (such as Veolia Depot and Australian Steel Mill). Given BSL's direct ownership and operation of adjacent landholdings and nearby sites to the Project location, the primary focus for the scoping engagement activities were focused on the broader community, representative and special interest groups, government agencies and elected officials and PKSW employees.

A summary of the Project stakeholders is outlined in **Table 5-1**.

Table 5-1 Project Stakeholders

Stakeholder group	Targeted stakeholders	Key areas of concern
Nearby Neighbours	Inside Industry; NSW Ports; BSL owned and operated steelmaking sites	■ Transport access impacts or changes (i.e. to tour operations) ■ Environmental changes ■ Community benefits ■ Construction impacts
Broader Community and Region	Illawarra region (residents and businesses); and the BSL Community Consultative Committee	■ Environmental changes ■ Community benefits ■ Construction impacts ■ Transport impacts or changes
Representative or Special Interest Groups	First Nations representatives and organised groups; I3net; RDA Illawarra; Business Illawarra; Greater City Commission; Clean Energy Taskforce; Rechange Illawarra; Relevant neighbourhood forums	■ Environmental changes (energy use, cultural heritage) ■ Transport access impacts or changes ■ Community benefits ■ Construction impacts ■ Local procurement / resourcing ■ Consideration of impacts
Government Agencies and Elected Representatives	Wollongong City Council; Department of Regional NSW; NSW Department of Planning and Environment; Transport for NSW; NSW Environment Protection Authority; EnergyCo; Federal and State Elected Ministers and Shadow Ministers;	■ Community benefit ■ Consideration of impacts ■ Consideration and mitigation of concerns ■ Changes and proposed mitigation / management strategies ■ Transport access impacts or changes
BSL Employees (PKSW)	All Port Kembla Steelworks employees	■ Assessment process ■ Community benefit ■ Regional economic development ■ Operational considerations (i.e. rostering)

5.2.2 Engagement Activities

Engagement activities were undertaken as part of the scoping phase to discuss the Project with targeted stakeholders and to build an understanding of potential concerns and opportunities. These activities also aimed to gather information that could inform the broader communication required to support the development application and delivery stages.

Ongoing stakeholder engagement will occur as per the SES following submission of the Scoping Report and issuing of the Project SEARs. This will involve re-engaging the broader community, including relevant industry and local community groups, to help achieve broader understanding of the Project, capture potential issues and opportunities, and work through potential mitigation measures, if required. It will also provide an opportunity to continue BSL's positive long-term relationship with the local community and regional stakeholders.

5.2.2.1 Government and Key Stakeholders

Details of consultation undertaken with government agencies and key stakeholders during the scoping phase is outlined in **Table 5-2.**

Table 5-2 Summary of Consultation Events – Government and Key Stakeholders

Stakeholder	Date and Type	Purpose and Outcomes
Illawarra Aboriginal Corporation	7 April 2022, 12 & 26 November 2021.	To introduce and provide ongoing updates on BSL's major projects at PKSW including ASMAP, inform of engagement activities completed to date / stakeholder feedback, and invite ongoing face-to-face meeting / site visits at IAC's request. No concerns were raised.
I3net	14 May 2022 Townhall event (in person)	To present an update to members (over 90 in attendance) on all BSL major projects at PKSW, including ASMAP. Key updates were provided to members outlining the consultation and planning approval steps, and a call to identify any local procurement opportunities. No concerns were raised and members expressed an interest to be kept up-to-date on the Project milestones and potential tender/employment opportunities.
Department of Regional NSW	24 May 2022 Teams meeting	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, and invite face-to-face meeting / site visit. Also, to understand any overlapping stakeholders and engagement considerations during and post Project scoping phase. No concerns were raised and support was offered to assist BSL where required with State Government agency project engagement.
NSW Department of Planning and Environment; NSW Environment and Protection Agency	1 June 2022 Site visit and briefing	To present an update on all BSL major projects at PKSW, with a focus on ASMAP. This included a visit to the operational/non-operational sites to better understand proposed works and gain feedback on the appropriate approval pathway and key considerations / concerns (i.e. from the DPE Hazards Team). No concerns were raised and dialogue followed on the potential approval pathway process and existing consents held at PKSW.

Stakeholder	Date and Type	Purpose and Outcomes
UOW and Business Illawarra Journey to Low Emissions forum	1 June 2022 Forum	Participated in a discussion on 'the transition to low emissions' including outlining BSL's roadmap and stream of advanced manufacturing and decarbonisation projects, including ASMAP. BSL was represented on a panel discussion by Chief Executive Australian Steel Products (ASP), John Nowlan. Over 100 local business representatives, industry groups, education institutions, elected government representatives and government agencies were in attendance. No concerns were raised on the Project.
Recharge Illawarra	10 June 2022 Briefing	To introduce the Project, discuss the wind tower facility component in further detail including offshore potential. It was a positive discussion with clear support on all aspects of the Project.
The Hon. Natalie Ward, MLC Member of the Legislative Council Minister for Metropolitan Roads, and Minister for Women's Safety and the Prevention of Domestic and Sexual Violence	24 June 2022 Briefing and site visit	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, and raise key transportation and logistics challenges (current and emerging). Logistics concerns were noted for consideration.
Jo Haylen MP Shadow Minister for Transport	27 June 2022 Briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, and raise key transportation and logistics challenges (current and emerging). Logistics concerns were noted for consideration.
The Hon. Samuel Farraway, MLC Minister for Regional Transport and Roads	5 July 2022 Briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, and raise key transportation and logistics challenges (current and emerging). Logistics concerns were noted for consideration.
Greater Cities Commissioners (Executive Directors); Business Illawarra; Wollongong City Council and Department of Regional NSW	12 July Briefing and site visit	To introduce the Project as one of BSL's major projects at PKSW, inform of engagement activities completed to date and project timeline, gain feedback on the proposal (including and concerns), and visit key project locations including the proposed wind tower fabrication facility. It was a positive discussion with clear support on all aspects of the Project.
NSW Government Clean Energy Taskforce	14 July 2022 Briefing and site visit	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback and visit the key project locations including the proposed wind tower fabrication facility. No concerns were raised and all were supportive of what the project would deliver including a reduction in GHG emissions (associated with the new walking beam furnace).

Stakeholder	Date and Type	Purpose and Outcomes
State and Federal Labor MPs: Member for Whitlam, Stephen Jones MP, Member for Cunningham, Alison Byrnes, Member for Gilmore, Fiona Phillips MP, Member for Wollongong, Paul Scully MP, Member for Keira, Ryan Park MP and Member for Shellharbour, Anna Watson MP	22 July 2022 Site visit and briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, gain feedback on the proposal (including any concerns) and visit key project locations including the proposed wind tower fabrication facility. Logistics concerns were noted for consideration and broad support was given for all aspects of the project, in particular the capacity to increase sovereign capability.
NSW Department of Planning and Environment (Development Assessment team)	27 July 2022 Site visit and briefing	To provide a follow up discussion on the Project, inform on engagement activities completed to date / stakeholder feedback, gain feedback on the proposal (including any concerns) and visit key project locations including the proposed wind tower fabrication facility. No concerns were raised regarding ASMAP and a commitment was shared to continue dialogue on the planning approval process for BSL's major projects at PKSW.
RDA Illawarra and Transport for NSW (Executive Directors)	27 July 2022 Site visit and briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, and raise and seek feedback on key transportation and logistics challenges (current and emerging). A site tour followed and included highlighting the Plate Mill and proposed wind tower facility location. The meeting enabled dialogue to continue with key representatives within TfNSW and BSL on project logistics considerations.
Illawarra Local Aboriginal Land Council CEO, Adell Hyslop	28 July 2022 Briefing	To provide ILALC's new CEO with an update and overview of the ASMAP and other major projects proposed at PKSW, outline the consultation and planning approval steps, and identify feedback and answer any questions. BSL offered to coordinate a site visit to include ASMAP and other major projects within the PKSW. The discussion also enabled for positive discussion and proposed follow up engagement regarding BSL's First Nations Framework and Aboriginal procurement and employment opportunities
Department of Regional NSW, Aboriginal Partnerships Manager, Scott Morgan	2 & 31 August 2022 Briefing	To provide DRNSW new Aboriginal Partnership Manager with an update and overview of the ASMAP and other major projects proposed at PKSW, outline the consultation and planning approval steps, and identify feedback and answer any questions. BSL offered to coordinate a site visit to include ASMAP and other major projects within the PKSW. The discussion facilitated positive opportunities for BSL to connect with relevant local Aboriginal groups as part of the project engagement.

Stakeholder	Date and Type	Purpose and Outcomes
Ports Land Roundtable	3 August 2022 Briefing	BSL provided an update on all major projects underway and proposed at PKSW, including ASMAP and invited further follow up discussions and feedback on the project including engagement considerations during and post Project scoping phase. Representatives included senior representatives at Wollongong City Council, NSW Ports, NSW Department of Planning and Environment, Department of Regional NSW and BSL.
NSW Shadow Minister for Finance, and Shadow Minister for Industry and Trade Annoulack Chanthivong MP; and NSW Shadow Minister for Emergency Services and Shadow Minister for Energy and Climate Change, Jihad Dibb MP	4 August 2022 Site visit and briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, gain feedback on the proposal (including any concerns) and visit key project locations including the proposed wind tower fabrication facility. Broad support was given for all aspects of the project, in particular the capacity to increase sovereign capability and the circular economy, economic and employment benefits that would be created from all BSL major projects at PKSW.
I3net; Wollongong City Council; Business Illawarra; Department of Regional NSW	5 August 2022 Briefing	To provide stakeholders with an update and overview of the Project, outline the consultation and planning approval steps, and identify local procurement opportunities and understand resourcing challenges and solutions in the Illawarra for ASMAP and other proposed major projects in the Illawarra region. A commitment to continue discussions with i3net and other participants was made to assist in better understanding the skills and capability requirements for all major projects in the Illawarra.
Transport for NSW	12 August 2022 Teams meeting	Follow up meeting to discuss proposed transportation of wind tower section.
EnergyCo briefing	16 August 2022 Site visit and briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, gain feedback on the proposal (including any concerns) and visit key project locations including the proposed wind tower fabrication facility. No concerns were raised regarding the Project. EnergyCo provided an update on activities underway across the state and discussed transmission and energy requirements associated with ASMAP and BSL's long term goal to be net zero by 2050 (and renewable energy supply needs).
The Hon. Matthew Kean NSW Treasurer, and Minister for Energy The Hon. Peter Poulos MLC Parliamentary Secretary for the Illawarra	7 & 25 July, 23 & 29 August 2022	This includes a series of discussions, meetings and correspondence between BSL and the NSW Treasurer on BSL's major projects at PKSW, including ASMAP. Specific discussions were held with the Treasurer on the proposed wind tower fabrication facility and plate mill modernisation project including associated planning approval requirements, applicable local content policies and co-investment discussions.

Stakeholder	Date and Type	Purpose and Outcomes
Senator for NSW the Hon, Tim Ayres Assistant Minister for Manufacturing and Assistant Minister for Trade	26 August 2022 Site visit and briefing	To introduce the Project, inform of engagement activities completed to date / stakeholder feedback, gain feedback on the proposal and visit the project locations including the proposed wind tower fabrication facility. Broad support was noted for all BSL major projects, including ASMAP. Assistant Minister Ayres announced at the meeting that the recent federal government grant awarded to the project (also covering other projects at PKSW) would continue having previously been placed on hold following a change in government.
EPA and BSL Environment Department Liaison Meeting	5 April 2022 22 May 2022 12 July 2022 23 August 2022	The EPA and BSL Environment Department meet on a regular basis. The ASMAP project is discussed at each meeting to gain feedback prior to lodging the project Scoping Report. Initial introduction to the project providing an outline of the project scope. The Project Manager ran the EPA through the project scope in some detail. Aspects discussed included potential for noise from the changes at the Plate Mill and the new wind tower facility. Water quality and drain discharges were also considered. Generally, an overview of the project was provided including the location of the new and upgraded facilities and processes. The Project was well received by the EPA attendees (comprising of the Wollongong branch representatives). Areas of interest included noise, air and water quality impact. Project update provided relating to the preparation of the Scoping Report. Project update provided. Overall, the EPA is supportive of the Project and the domestic benefits from the manufacture of/and end-use of key building and construction products.

5.2.2.2 Community Engagement

Details of consultation undertaken with the community during the scoping phase are outlined in **Table 5-3.**

Table 5-3 Summary of Consultation Events – Community

Stakeholder	Date and Type	Purpose and Outcomes
Nearby Neighbours (NSW Ports)	14 May 2022 and 3 August 2022 Townhall and briefing	NSW Ports were engaged on the Project at key stakeholder briefings noted in Table 52. This included at the i3net BSL Townhall on 14 May 2022 and at the Ports Land Roundtable meeting held 3 August 2022. No significant concerns were raised regarding the Project.

Stakeholder	Date and Type	Purpose and Outcomes
Nearby Neighbours (Inside Industry Board via BSL/Inside Industry quarterly partnerships meetings)	19 May 2022 18 August 2022 Briefing	BSL engaged with members of Inside Industry Board on the Project via ongoing quarterly partnership meetings. This included updating representatives on proposed major projects at PKSW. The Board were supportive of the project and other major projects proposed at PKSW. Key considerations noted regarding the project included any potential impact on Inside Industry's public tours during the construction phase. While impacts are unlikely to occur, this feedback has been included for consideration during the design and proposed construction phases of the project.
Broader Community (Community Open Day)	9, 12 April 2022 Community Open Day	The Community Open Days were established as part of BSL's No.6 Blast Furnace Project. BSL held two community information sessions to inform the community of the reline project and other major projects proposed at the Port Kembla Steelworks, including ASMAP. Senior BSL representatives were on hand to talk to representatives of the community about the Project and answer any questions. The sessions, advertised broadly in the Illawarra Mercury, were attended by a total of 24 participants and no concerns were raised regarding ASMAP. General comments were made by participants recognising the value the Project will add to the region in terms of its economic impact and boost to enhance sovereign capability. It was noted that further community information sessions regarding ASMAP will be held following the completion of the Project's Environmental Impact Statement (EIS).
Broader Community (Community information session)	7 October 2021 Online Community Information Session	The online community information session was established to provide the broader Illawarra community with information on the No.6 Blast Furnace Reline Project. The information session also noted several other proposed major projects including ASMAP and BSL's decarbonisation projects. The session was advertised in the local newspaper (Illawarra Mercury) and via the BSL Illawarra website. The townhall was attended by hundreds of local community members, businesses, special interest group (environmental) representatives and BSL employees. Senior BSL leaders facilitated the session which allowed for a dedicated and open Q&A session at the conclusion of the two-hour information briefing. No questions or concerns were raised from attendees regarding ASMAP. A recording and presentation of the session is available on BSL's website at https://www.bluescopeillawarra.com.au/pksw-no6-blast-furnace-reline/

Stakeholder	Date and Type	Purpose and Outcomes
BSL Community Consultative Committee (BCCC)	4 April 2022 28 July 2022 Meeting	Members of BlueScope's Community Consultative Committee meeting were informed and updated on the Project at the most recent two meetings held 4 April and 28 July 2022. While minimal feedback was provided by members present at both meetings, general comments were made recognising the value of modernising the Plate Mill to be able to produce plate for wind tower fabrication. Further, positive feedback was shared on the economic benefits the Project would provide both during construction and ongoing operation. BSL advised a site visit will be held to proposed locations associated with ASMAP and other major projects within the PKSW at the next meeting proposed in October 2022. The BCCC is comprised of representatives from Wollongong City Council; NSW EPA; Local Schools (Principal, Cringila PS), NSW Ports, Community Industry Group, Neighbourhood Forum 5 and 7, Healthy Cities Illawarra; Inside Industry and Port Kembla Pollution Meeting (PKPM). Minutes of the meeting can be found on BSL's website at https://www.bluescopeillawarra.com.au/community/community-consultative-committee/
PKSW Employees	15 March 2022, 9 June 2022, 1 August 2022 Employee engagement platforms including Workplace and ASP chat.	Briefings to engage BSL PKSW with the Project have been held on several occasions throughout late 2021 and in 2022. Engagement increased following BSL's successful request for funding (*subject to finalisation of a funding agreement*) from the Federal Government as part of its Modern Manufacturing Initiative (MMI). Engagement has largely been focused on providing detail on Project inclusions (at the plate mill and proposed wind tower fabrication facility), the planning assessment process and work completed to date (as part of the scoping work). The Project was well received with the workforce excited about the opportunities it presents with several positive comments shared on creating sovereign capability, the reduction of GHG emissions, surface defect elimination, delay reduction and increased throughput. Updates have been shared via the Company's online engagement platform, Workplace (known as 'Facebook for workplaces') and through ongoing ASP chat sessions, held online with Chief Executive Australian Steel Products, John Nowlan. The ASP chat sessions also enable employees to submit questions during the live chat session and the session is recorded and remains accessible on Workplace for those unable to make the 'live' session. Further briefings will be held throughout each stage of the NSW Government Planning Assessment process.

The stakeholder and community discussions identified strong support for the Project. All those engaged commented on the appropriate location for the Project, given the longstanding operation of the Port Kembla Steelworks and proposed minimum impact working on a brownfields site (with key infrastructure already in place, i.e., buildings and minimal disturbance to community and other stakeholders). Many commented on the significant project investment value, job creation, and strengthening of sovereign capability in the Illawarra region.

The stakeholders were asked to identify any issues or areas for clarification as the planning progresses, which were largely consistent in each conversation. A summary of the key issues identified by the community and details of feedback received is summarised in **Table 5-4**.

Table 5-4 Key Issues Summary

Topic	Feedback Received	Assessment Methodology
Traffic and Access	■ Increase in heavy vehicles and traffic during construction period ■ Increase in oversized load truck movements associated with the operation of a wind tower fabrication facility on key commuter / public roadways	■ Potential impacts of the Project on traffic and access will be assessed within the Traffic Impact Assessment prepared for the EIS. ■ Further discussion is provided in Section 6.6.
Construction and Traffic Management	■ Potential impact on public and organised tours associated with construction / traffic activities i.e. access to site, increased contractors and heavy vehicle movements associated with delivery of material ■ Management of potential dust and noise generated during construction activity	■ Potential impacts to non-BSL commercial operations as a result of construction and traffic management will be assessed within the Traffic Impact Assessment prepared for the EIS. ■ Potential impacts of construction noise and dust will be assessed within the Noise Impact Assessment and Air Quality Impact Assessment prepared for the EIS. ■ Further discussion is provided in Section 6.3.
Local Procurement / Project Resourcing	■ Potential resourcing challenge to fill key roles due to competing local projects and worker shortage / accommodation availability	■ Potential challenges in resourcing project requirements will be in the EIS prepared for the ASMAP Project. ■ Further discussion is provided in Section 6.7.
Environmental Changes	■ Increase in energy usage at PKSW associated with updates to the Plate Mill and the introduction of a new wind tower fabrication facility ■ Potential impacts to areas of cultural significance	■ Potential impacts associated with energy consumption will be detailed in the EIS prepared for the ASMAP Project. ■ Potential impacts to Aboriginal Cultural Heritage items will be assessed within the Heritage Assessment Report prepared for the EIS. ■ Further discussion is provided in Section 6.4.

5.3 Proposed Engagement

Broader engagement will occur during the EIS phase to inform and gain feedback from the current identified stakeholder list and other stakeholder groups located in the community. The SES outlines the details of stakeholder consultation that will be undertaken during the preparation of the EIS, which includes the following activities:

- Establishment of a Project website and dedicated contact points;
- Open house information sessions promoted through public notice in the local newspaper;
- Online survey to capture broader opinion and feedback;
- Distribution of Project updates and fact sheets;
- Stakeholder emails (targeted);
- Ongoing Council, DPE, TfNSW meetings (including other agencies as outlined by the SEARs);
- Ongoing meetings with nearby businesses and organisations;
- Ongoing internal engagement with the PKSW workforce;
- Meetings with elected officials; and
- Development of a range of engagement channels for viewing information on the Project, including podcasts, animations / videos and icon displays.

There are opportunities to build upon existing positive and collaborative relationships with the community and Project stakeholders. This relationship can be developed meaningfully by continuing to share information on the Project, clarifying key areas, and demonstrating how feedback has been applied to the Project.

BSL has a longstanding history of supporting the communities in which it operates, and the Project will contribute to the ongoing financial support provided by BSL to community groups and community facilities located in Port Kembla and surrounding suburbs via the BSL WIN Community Partnerships Program.

6. PROPOSED ASSESSMENT OF IMPACTS

6.1 Categorisation of Assessment Matters

This section outlines matters requiring further assessment in the EIS, the level of assessment that should be undertaken for each matter, and the proposed assessment approach.

A preliminary environmental assessment was undertaken to identify the potential matters associated with the proposed construction and operation of the Project. The following were considered in the identification of matters requiring further assessment in accordance with the Scoping Report Guidelines:

- The scale and nature of the likely impacts of the Project and the sensitivity of the receiving environment;
- Whether the Project is likely to generate cumulative impacts;
- The ability to avoid, minimise and/or offset the impacts of the Project, to the extent known at the scoping stage; and
- The complexity of the technical assessment of the Project.

Each matter and its proposed level of assessment categorised as either *detailed* or *standard* is identified in **Table 6-1.** Detailed assessments include environmental aspects that present a potential high constraint to the development, and other aspects which require detailed assessment by technical specialists. Standard assessments include environmental matters that are unlikely to have significant impacts on the matter, including cumulative impacts. In addition, the matters have been categorised to align with those identified in the Scoping Report Guidelines. A Scoping Summary Table has been included in **Appendix A.**

The key matters requiring more detailed assessments have been identified based on a preliminary assessment of the Project Site and by taking into consideration other industrial activities in the wider PKSW operations.

Table 6-1 Proposed Assessment

Level of Assessment	Aspect
Detailed	Access – Traffic and Transport Air Quality and GHG Noise and Vibration
Standard	Visual Amenity Biodiversity Hydrology and Groundwater Quality Heritage –Aboriginal and Historic Social Hazards and Risks – Contamination Hazards and Risks - Preliminary Hazard Analysis Hazards and Risks – Bushfire Soil and Geology (Geotechnical) Waste Management

The EIS will be prepared in accordance with the SEARs to be issued by DPE in response to this Scoping Report and will incorporate the issues which have been outlined in **Table 6-1** above. All assessments (including specialist assessments) will be completed by taking into consideration the outcomes of consultation with stakeholders and industry best practice guidelines.

6.2 Visual Amenity

6.2.1 Existing Environment

The PKSW is zoned *IN3 – Heavy Industrial* and *SP1 – Special Activities* and is located within an existing industrial area adjacent to Tom Thumbs Lagoon and Port Kembla Harbour. The closest residential areas are within a radius of 1.5 km from the boundaries of the broader PKSW site. Located in a northerly direction are Coniston and Mount Saint Thomas and south of the site is Cringila as depicted in **Figure 2-2.**

Construction of the Project has a slight potential to create temporary visual impacts at sensitive visual receptors such as residences, roads, and open areas due to the work occurring within the PKSW site boundary. However, these visual impacts during construction are considered minor as construction activities would be constrained to the Project Site and are limited in their extent and duration.

Operation of the Project may have the potential to create longer lasting visual impacts. One (1) stack associated with the new furnace at the Plate Mill will be erected. Depending on the preferred design, it would be either an induction (i.e. forced ventilation) stack of up to 45 m high or a natural draft stack of up to 82 m above ground level (agl) as shown in **Appendix H**, which would have potential to create visual impacts for nearby receivers. **Appendix E** includes viewpoints of the PKSW from three surrounding locations as follows:

- Wollongong (circa 4 km) to the north;
- Farmborough Heights (circa 5.5 km) to the west; and
- Lake Heights (circa 3 km) to the south.

Each of the viewpoints show the location of the proposed new Plate Mill furnace stack in the context of the overall PKSW viewshed. (*Note*: The images in **Appendix E** are not to scale).

There will also be some relatively small scale additional buildings constructed around the KW building as the proposed location for the Wind Tower Manufacturing Facility.

However, the proposed Project works will be confined and consistent with the current visual landscape and will be visually integrated within the existing industrial character of the PKSW site and its surrounding areas. Visual impacts from the Project are therefore expected to be minimal.

6.2.2 Assessment Approach

A Landscape and Visual Impact Assessment (LVIA) will be prepared to consider the potential visual impacts of the Project from sensitive visual points both in the immediate vicinity and the wider region. Considering the existing infrastructure within the PKSW facility, the new stack at the Plate Mill and additional buildings around the KW building is not anticipated to pose a significant impact on the visual amenity. The assessment will examine the sensitivity of the landscape and capacity to incorporate the Project without further visual impact. The assessment will also identify measures to avoid, mitigate and manage the potential impacts during construction and operation.

The purpose of the LVIA is to determine the potential impact of the proposed development in the context of the existing character and provide recommendations for mitigation of any potential impacts identified, and includes the following key steps:

- A review of existing relevant base data, including aerial photography, as well as the proposed works and review of relevant sub-consultants reports and existing planning policies;
- Discussion of specific concerns in regard to visual impact through liaison with the Applicant, relevant sub-consultants and relevant authorities and stakeholders;
- A site visit and photographical survey; and
- Preparation of draft written LVIA report including relevant figures, recommendations on improvements to the visual character through mitigation methods and diagrams.

6.3 Noise and Vibration

6.3.1 Existing Environment

The PKSW site is located at Five Islands Road, Port Kembla, NSW, within an established industrial precinct. The site is surrounded by other existing clusters of industries.

The acoustic environment at PKSW is described as industrial with the main noise contributors being existing operational noise from activities at PKSW, other industrial operations in the Port Kembla area, and local road traffic and freight train noise.

The closest existing most sensitive areas are within a radius of 1.5 km from the boundaries of the Project Site. Located in a northerly direction are Coniston and Mount Saint Thomas and south of the site is Cringila as depicted in **Figure 2-2**. The sensitive receptors include residential suburban dwellings, day-care centres, school, aged care facilities and commercial premises**.**

The acoustic environment at the closest existing most sensitive areas can be described as a typical suburban area with characteristically local intermittent traffic flows or with some limited commerce or industry. The evening ambient noise levels of the area can often be defined by the natural environment and human activity.

6.3.2 Assessment Approach

The Project will result in new noise sources during construction activities (temporary), manufacturing operations (including baghouses at plate processing and the Wind Tower Manufacturing Facility), and additional traffic on the local road network. The Project may also result in an increase in the overall noise impact levels from the PKSW site and other industrial sites at the closest sensitive areas. The noise impact of the Project and its cumulative noise impact will be assessed in detail during the EIS phase.

Vibration impacts from the construction activities and operational equipment from powered mechanical equipment items including compressors, fans and pumps, are considered negligible but will also be assessed in the EIS phase.

A Noise and Vibration Impact Assessment (NVIA) will be prepared in the EIS phase to address the noise and vibration impacts of the Project across both its construction and operational stages. The NVIA will include an assessment of:

- Operational impact(s);
- Construction impact(s);
- Additional operational and construction road traffic noise impact(s) on the local road network; and
- Mitigation and management controls for construction and operational noise and vibration;

The NVIA will be prepared in accordance with the following standards and guidelines:

- Wollongong LEP 2009;
- The Transport and Infrastructure SEPP 2021;
- EPA NSW Noise Policy for Industry (NPI) 2017;
- The NSW Department of Environment and Climate Change, Interim Construction Noise Guideline (ICNG) (DECC, 2009);
- NSW Road Noise Policy (RNP) (DECCW, 2011); and
- NSW Department of Environment and Conservation, Assessing Vibration: a technical guideline (DEC, 2006).

6.4 Biodiversity

6.4.1 Existing Environment

The existing PKSW site consists of a highly disturbed environment with minimal vegetation (dominated by planted species or opportunistic weeds) and retains limited biodiversity value.

The Project Site is heavily developed and contains planted and landscaped vegetation in a modified condition only. Planted native and non-native vegetation across the Project Area includes Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*), *Ficus sp*., Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp*. This vegetation does not make up a Plant Community Type (PCT). The Project will result in the removal of a small portion of this planted vegetation only.

Based on a review of the Illawarra PCT Vegetation Map (VIS_ID 4678, 2016), no native vegetation is mapped within the PKSW site, and no TECs are likely to occur.

A search of the NSW BioNet database for threatened species records within the last 50 years was undertaken on 12 July 2022 which includes species listed under the BC Act EPBC Act. No threatened species are recorded within the Project Site.

The nearest threatened species records are of the Sooty Oystercatcher (*Haematopus fuliginosus*) within the broader PKSW site. Within 1 km of the PKSW site, there are records of Green and Golden Bell Frog (*Litoria aurea*) listed as Endangered under the EPBC Act and BC Act, Grey-headed Flying Fox (*Pteropus poliocephalus*) listed as Vulnerable under the BC Act, and the Black-necked Stork (*Ephippiorhynchus asiaticus*) listed as Endangered under the BC Act.

Habitat for the Green and Golden Bell Frog, Black-necked Stork, and Sooty Oystercatcher is not present within the Project Site; however, highly mobile species may fly over the Project Site as part of their generalist habitat requirements. Limited suitable habitat for the Grey-headed Flying-fox is present within the Project Site, in the form of *Eucalyptus, Corymbia, Ficus* and *Lophostemon* species. These trees are not considered to make up a PCT, are not considered critical foraging habitat for the Grey-headed Flying-fox and are not unique to the locality with similar vegetation planted across the broader PKSW Project Area.

Therefore, the Project development footprint does not support any threatened species or ecological communities and no significant habitat features have been identified. Based on the long history of vegetation clearance and disturbance, it is unlikely that the proposed Project would result in any significant impacts on ecological values listed under the BC Act or the EPBC Act.

6.4.2 Assessment Approach

It is anticipated that there will be negligible impact to biodiversity values as a result of this proposed Project at PKSW. A Biodiversity Development Assessment Report (BDAR) Waiver has been prepared for the Project and will be submitted concurrently with the request for SEARs. The BDAR Waiver is included as **Appendix D**.

6.5 Heritage

6.5.1 Existing Environment

6.5.1.1 Aboriginal Cultural Heritage

Preliminary Aboriginal heritage assessment was undertaken to identify the potential for Aboriginal heritage values and Aboriginal objects to be present across the PKSW. The heavily disturbed PKSW site is located within the Illawarra Local Aboriginal Land Council (LALC). The presence of Aboriginal heritage items is considered to be highly unlikely as the land has been subject to extreme levels of disturbance for a multitude of industrial activities.

A review of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 21 July 2022 to develop an understanding of any Aboriginal sites which may have been registered within a 1 km buffer of the PKSW. The search resulted in the identification of one (1) Aboriginal site being recorded in or near the PKSW location and no Aboriginal places. The results of the AHIMS search are shown in **Figure 6-1**.

An extensive AHIMS search was undertaken on 16 August 2022 to identify the recorded site as BSS-OS-1 (AHIMS Site ID 52-2-3618) located (Easting 304670, Northing 6185580, Zone 56), approximately 280 m west to the new Plate Mill. The site consists of two flaked stone artefacts in a disturbed landscape context associated with Springhill Road / The Horse Paddock.

Further desktop assessment was undertaken for the site and details of this assessment are included in **Appendix F**.

6.5.1.2 Historic Heritage

A search of all relevant historic heritage databases including the Commonwealth Heritage List, National Heritage List, State Heritage Register, Wollongong LEP 2009 and the Transport and Infrastructure SEPP 2021 identified no items of historic heritage and no interim heritage orders or declared Aboriginal places within the Project Site. The nearest historic heritage item is the locally listed Commonwealth Rolling Mills (CRM) and a house on Bridge Street, both of which are listed on the NSW State Heritage Register.

6.5.2 Assessment Approach

Following discussions between DPE and BSL in August and September 2022 and in the context of the other projects proposed for the PKSW operations, as a component of the EIS, it has been agreed to prepare a heritage assessment report based on:

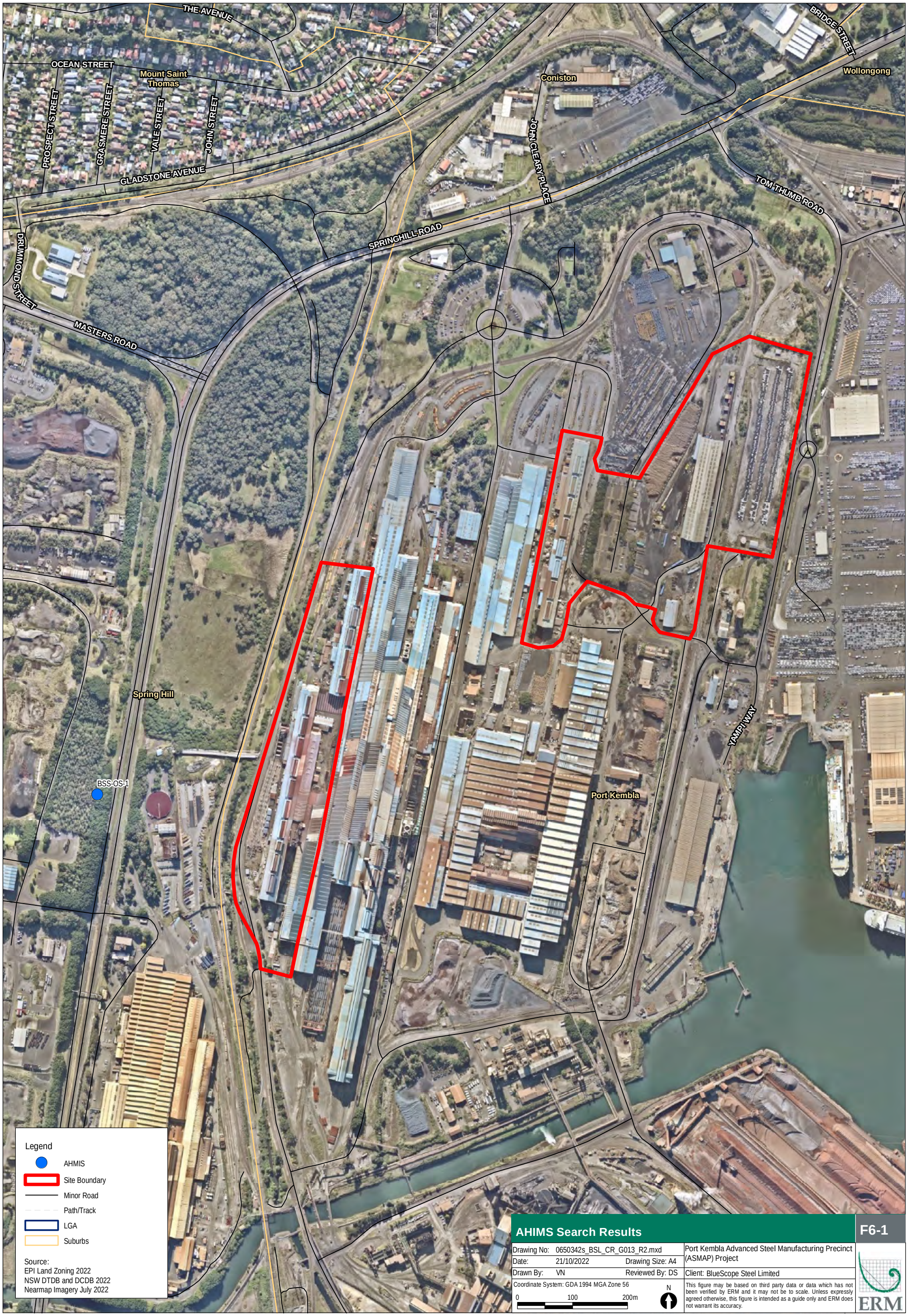
- Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010);
- Heritage Act 1977;
- NSW Heritage Manual (HO and DUAP, 1996); and
- The Burra Charter (ICOMOS Australia, 2013).

The Assessment Report as part of the EIS will be completed in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* and will include consultation with Registered Aboriginal Parties (RAPs) for the ASMAP Project and other proposed BSL projects.

The following steps will be utilised to consult with RAPs and complete the Aboriginal heritage assessment for the ASMAP Project:

- Background research and predictive modelling;
- Aboriginal Community Consultation, which will consist of:
  - Task 1: Identification of Aboriginal stakeholders;
  - Task 2: Site meeting and survey; and Task 3: Aboriginal heritage assessment.

The report will detail the background research, results of the site inspection, details of the proposed development, evidence of the engagement work undertaken, highlight and address key issues raised during consultation, details of any impact on any evidence of Aboriginal occupation or Aboriginal objects by the proposed development and management recommendations. Once the draft Aboriginal heritage assessment has been developed it will be issued to all RAPs for review as part of the consultation process. Details on the methodology for the Aboriginal heritage assessment of the ASMAP Project is described in **Appendix F**.


THE AVENUE
OCEAN STREET
Mount Saint Thomas
PROSPECT STREET
GRASMERE STREET
VALE STREET
JOHN STREET
GLADSTONE AVENUE
Coniston
JOHN CLEARY PLACE
BRIDGE STREET
Wollongong
TOM THUMB ROAD
SPRINGHILL ROAD
DRUMMOND STREET
MASTERS ROAD
Spring Hill
BSS-OS-1
Port Kembla
YAMPI WAY
Legend
AHMIS
Site Boundary
Minor Road
Path/Track
LGA
Suburbs
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
AHMIS Search Results
F6-1
Drawing No: 0650342s_BSL_CR_G013_R2.mxd
Date: 21/10/2022
Drawing Size: A4
Drawn By: VN
Reviewed By: DS
Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
Coordinate System: GDA 1994 MGA Zone 56
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This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
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6.6 Access – Traffic and Transport

6.6.1 Existing Environment

Traffic and access associated with PKSW is provided mainly via Springhill Road from the north, which connects to the Princes Motorway (via Masters Road) and Five Islands Road from the south, which connects to the Princes Motorway. Thereon vehicles use private internal roads including Yampi Way, Tom Thumb Road and an unnamed local road that provides entry to the BSL Northgate Entrance (Northgate) to access specific sites within PKSW. The PKSW site is internally well linked by road and rail. Local roads are displayed in **Figure 3-4** above.

The existing road traffic fleet at the PKSW consists of Floats, Tri-axles B Doubles and Rigid vehicles while the rail traffic fleet consists of 50 IG wagons and 55 OG wagons.

Road despatch averages around 14,000 t per month and peak at 18,000 t per month, which equates to approx. 900 trucks per month, assuming an average load of 20 t. Rail despatch rates average around 13,500 t per month and peak at 17,000 t per month. Rail freight includes other products from PKSW including hot rolled coil, coated products, beams on other wagons.

The Northgate entrance from Springhill Road and onto the internal road network of the Project Site would most likely be impacted during the construction and operation stages of the Project. While the construction stage has potential to generate light and heavy vehicle traffic from additional construction workers activity on site, the operational stage would also generate traffic primarily from the movement of finished products from the Plate Mill and wind tower manufacturing facilities which has been discussed in **Section 3.4.3**. Designated parking areas are located in the PKSW site and the requirement of temporary parking areas during construction and permanent parking areas during operation will be considered and assessed in the EIS phase.

6.6.2 Assessment Approach

Access to the PKSW, including traffic and transport are key considerations during both the construction and operational phases of the Project. A Traffic Impact Assessment (TIA) will be undertaken for the EIS, which will aim to identify potential traffic, transport and access impacts of the Project, and include a route assessment for truck movements to the PKSW. The TIA will also address the issue of transport of large wind tower components and additional traffic from employees commuting to the wind tower manufacturing facility,

The assessment will incorporate the following components:

- Reviewing existing access arrangements;
- Estimating the volume and distribution of construction and operational traffic;
- Identifying appropriate mitigation measures; and
- Reviewing site access and parking arrangements.

The assessment will be undertaken in accordance with the following guidelines and resources:

- Guide to Traffic Generating Developments, Version 2.2 (RTA, 2002);
- Austroads *Guide to Road Design;* and
- Austroads Guide to Traffic Management.

6.7 Social

This section provides the first phase Social Impact Assessment (SIA) for the Project, undertaken in accordance with the DPE *Social Impact Assessment Guideline: For State Significant Projects* (the Guideline) (Department of Planning, Industry and Environment [DPIE], 2021b) and DPE's *Technical Supplement: Social Impact Assessment Guideline for State Significant Projects* (Technical Supplement) (DPIE, 2021e).

The first phase SIA involves scoping and preliminary assessment, identifies the level of assessment to be applied, and sets further parameters for the second phase SIA (the assessment report to be appended to the EIS) (DPIE, 2021b, p. 12)

Accordingly, the first phase SIA includes:

- Defining the Project's Social Locality;
- Describing the profile of the community in a preliminary social baseline, outlining the potential social impacts; and
- Outlining the approach that will be undertaken to complete the second phase SIA during the EIS phase.

6.7.1 Existing Environment

6.7.1.1 Social Locality

Determining the Social Locality for the Project involves understanding the nature of the Project, the characteristics of the surrounding communities, and how potential positive and/or negative impacts will be experienced by different community members and groups.

In determining the Social Locality, the following was taken into consideration:

- The Project Description, including the nature of fabrication techniques to be used in the precinct, and the associated plant throughput;
- The location and layout of the precinct and any ancillary infrastructure, relevant to the Project Site and surrounding sensitive land uses; and
- Construction and Operation Phase activities, such as:
  - Workforce requirements, including skills required, accommodation arrangements and daily transportation to and from the site;
  - Goods and services required by the Project; and
  - Transportation and haulage routes to and from the Project Site.

When considering these aspects, it was determined that the Project's Social Locality should include the Project Site, the surrounding area wherein noise, visual, air quality and other amenity impacts may occur, as well as the communities that may provide workers or goods and services to the Project.

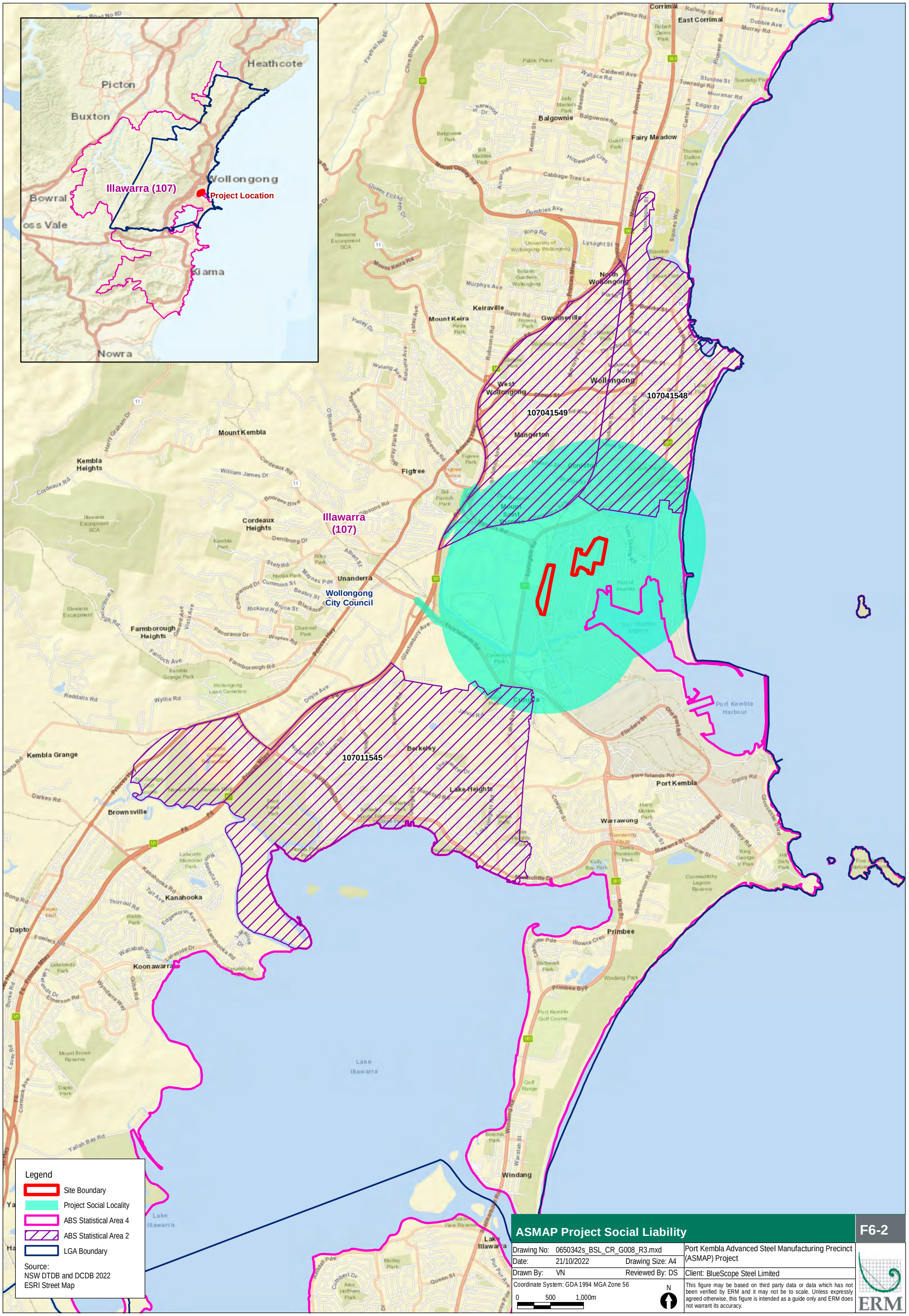
The Project comprises an upgrade of an existing facility, including repurposing of an existing building to become a Wind Tower Manufacturing Facility, located within Port Kembla heavy industry zone, located wholly within the Wollongong LGA. The Project Site is accessed by vehicular traffic from the north and west via Springhill Road, which connects the facility to the Princes Motorway (M1) via Masters Road, by rail via the Australian Rail Track Corporation's (ARTC) Port Kembla line, and by deep-water port via Port Kembla.

The Project's Social Locality, as defined for the purposes of the SIA, is comprised of the following three components:

- The immediate surrounds of the Project Site encompassing the Australian Bureau of Statistics (ABS) Statistical Areas Level 2 (SA2) of Wollongong – East, Wollongong – West, and Berkeley – Lake Heights – Cringila, containing nearby residencies and other sensitive land uses.[1] SA2 data has been used to identify key baseline indicators for the Social Locality, where applicable. Additionally, LGA level data for the Wollongong LGA and Statistical Areas Level 4 (SA4) data for the Illawarra region was used to provide an understanding of the broader and comparative social context within which the Project is located.
- The transportation and haulage routes, comprising vehicular routes to and from the site which will be used during construction and operations.
- The surrounding communities in the Wollongong LGA region from where goods and services to support the Construction and Operation Phases of the Project will be sourced.

The Project Site and immediate surrounding areas (comprising the SA2s, LGA and SA4 areas), and transportation and haulage routes are depicted in **Figure 6-2**.

[1] The Project is located within the Port Kembla Industrial SA2 area: https://www.abs.gov.au/census/find-census-data/quickstats/2016/107011133 (ABS SA2 Area Code: 107011133), but as no residents were recorded during the most recent census this has been scoped out of the assessment.



ASMAP Project Social Liability

F6-2

Drawing No:	0650342s_BSL_CR_G008_R3.mxd		Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Date:	21/10/2022	Drawing Size: A4	
Drawn By:	VN	Reviewed By: DS	Client: BlueScope Steel Limited

Coordinate System: GDA 1994 MGA Zone 56

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6.7.1.2 Community Profile

The community profile presented in this section will inform the social baseline in the second phase SIA (as part of the EIS) and draws on the latest available ABS data (2021 census). **Table 6-2** outlines the primary ABS datasets used to provide key demographic data across the Project's Social Locality. For the purposes of the first phase SIA, only 2021 ABS datasets were considered; however, in the second phase SIA, relevant 2016 ABS data will also be used for the purposes of trend analysis.

Table 6-2 Summary of Relevant ABS Datasets

Location	2021 ABS Census Data Reference (Area Code)
Wollongong LGA	18450 (LGA)
Wollongong – East SA2	107041548 (SA2)
Wollongong – West SA2	107041549 (SA2)
Berkeley – Lake Heights – Cringila SA2	107011545 (SA2)
Illawarra	107 (SA4)
NSW	1

In addition to the above listed ABS datasets, the second phase SIA social baseline will be informed by a desktop review of sources including from public health advisory bodies, principally NSW Health and local hospitals (i.e., regarding physical and mental health issues prevalent in the local community), and educational institutions, principally the NSW Department of Education and local schools, where relevant. Information relating to the economic profile of the Project is also provided by ABS 2021 Census data, while information on developmental priorities and challenges in the region will be provided by local and state government planning documents.

Table 6-3 draws on the ABS datasets listed in **Table 6-2** to provide a demographic overview of the Project's Social Locality. The ABS Statistical Areas are the primary source providing details of the potentially impacted community's defining characteristics, and are used to provide a preliminary understanding of the demography and vulnerable groups within the Project's immediate Social Locality.

Table 6-3 also includes the ABS' Socio-Economic Indexes for Areas (SEIFA)[2] to provide an indication of comparative socio-economic advantage and disadvantage. It should be noted that the SEIFA data provided is relevant to the 2016 census, as the SEIFA for the 2021 census has not been released.

[2] Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census, available at: https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/2033.0.55.001Main+Features12016?OpenDocument.

Table 6-3 Key Indicators for all ABS Datasets* across the Project's Social Locality

	ABS Statistical Area	Wollongong LGA (18450)	Wollongong – East SA2 (107041548)	Wollongong – West SA2 (107041549)	Berkeley – Lake Heights - Cringila SA2 (107011545)	Illawarra SA4 (107)	NSW (1)
Population	Population 2021	214,564	16,020	16,551	14,200	313,842	8,166,757
	Population expected in 2041**	276,936**	28,527**	24,541**	17,726**	-	9,872,934**
	Annual % pop Δ to 2041**	1.15%**	2.61%**	1.51%**	0.89%**	-	0.95%**
	Median age	39	36	34	39	40	39
	Population under 14 / over 65	17.5% / 18.6%	7.7% / 20.1%	14.4% / 14.6%	19.6% / 18.2%	17.9% / 19.1%	18.2% / 17.7%
	Indigenous population	3.2%	2.1%	2.1%	5.2%	3.6%	3.4%
	Households where a non-English language is used	19.3%	23.7%	31.4%	32.4%	17.0%	29.5%
Education	Educational attainment year 12 or equiv.	20.9%	8.8%	14.9%	22.7%	21.6%	20.9%
	Educational attainment vocational, university or equiv.	28.6%	53.5%	41.7%	18.9%	26.0%	23.8%
Income & Housing	Household Income median weekly	$1,682	$1,578	$1,595	$1,251	$1,684	$1,829
	Unemployment rate	4.9%	5.2%	6.2%	6.6%	4.6%	4.9%
	Housing tenure Owned / mortgaged / rented	34.2% / 32.0% / 31.0%	24.8% / 17.3% / 54.2%	26.0% / 25.0% / 46.4%	34.9% / 28.0% / 33.5%	35.1% / 33.0% / 29.0%	31.5% / 32.5% / 32.6%
	Households where mortgage / rental repayments are > 30% of household income	14.0% / 37.1%	17.5% / 35.7%	13.7% / 35.2%	19.4% / 39.4%	14.3% / 37.5%	17.3% / 35.5%
	Dwelling count Number unoccupied (%)	5,460 (6.3%)	1,156 (12.9%)	585 (8.2%)	321 (5.9%)	8,496 (6.8%)	8,496 (9.4%)
	***SEIFA Percentile in NSW	72	59	50	6	-	-
Health	Incidence of asthma / cancer / lung conditions	8.6% / 3.2% / 2.1%	7.8% / 3.4% / 1.7%	7.9% / 2.1% / 1.7%	9.0% / 2.6% / 2.7%	8.7% / 3.2% / 2.1%	7.8% / 2.9% / 1.7%

	ABS Statistical Area	Wollongong LGA (18450)	Wollongong – East SA2 (107041548)	Wollongong – West SA2 (107041549)	Berkeley – Lake Heights - Cringila SA2 (107011545)	Illawarra SA4 (107)	NSW (1)
	Count of selected long-term health conditions: one condition / two conditions / three or more conditions	20.6% / 6.7% / 3.6%	20.1% / 6.6% / 3.3%	19.4% / 6.0% / 2.7%	21.0% / 7.7% / 4.4%	20.7% / 6.8% / 3.7%	18.3% / 5.7% / 3.0%

** All datasets are from the 2021 Census (ABS 2022) unless otherwise noted.*

*** Population Projections data supplied by NSW Department for Planning, Industry and Environment (DPE 2022) (Note DPE's population estimates differ from the ABS').*

**** SEIFA data provided in ABS 2018.*

6.7.1.3 Social Infrastructure Overview

The Project Social Locality is characterised by densely populated residential areas: to the north in the suburbs of Mount St Thomas, Coniston, Mangerton and Wollongong; to the west in the suburbs of Figtree and Unanderra; and to the south in the suburbs of Cringila, Berkeley, Lake Heights, Warrawong, and Port Kembla. The suburb of Spring Hill adjacent to the Project Site does not contain any residential areas. The remainder of the industrial area is located in the suburb of Port Kembla.

Wollongong LGA

As the fourth largest population centre in NSW, Wollongong has a wide variety of educational, medical, accommodation, retail and other services available. This includes the University of Wollongong, TAFE Illawarra, Wollongong Hospital and Wollongong Private Hospital. The suburbs surrounding the industrial area of Spring Hill and Port Kembla tend to offer smaller localised services such as pre, primary and secondary schools, GP clinics, places of worship, a wide variety of sporting clubs and facilities, cultural associations, social and community services, retail businesses and emergency services. The region is serviced by local bus and Sydney Train's passenger services on the Port Kembla line (including the Lysaghts, Port Kembla North and Port Kembla stations), and South Coast line (including Unanderra Station) which connect the region with Sydney.

Port Kembla Industrial Area

Industrial activities at Port Kembla are well established with development beginning with construction of a private jetty by the Mount Kembla Coal and Oil Co. in 1882. Coal exports commenced shortly after, before a coke works constructed in the late 1890s, followed by construction of stone breakwaters to expand the port facility during 1900. The Electrolytic Refinery and Smelting Company of Australia began copper smelting and refining in 1908 while Hoskins' Australian Iron and Steel (AIS) commenced operations in 1928. In 1935 BHP acquired AIS and alongside other companies expanded operations and the port facility during the 1950s bolstered by labour influx following the Second World War. By the mid-1970s the steel output exceeded four million tonnes and the steel-making workforce had exceeded 20,000 but would decline in the proceeding decades. Alongside other steel making assets, BSL was spun-off BHP in a corporate restructure between 1999-2002 and in 2011 steel production at BSL facility was halved.[3]

Relative industrial decline in the region has prompted a shift towards science and innovation to leverage the industrial heritage. This is demonstrated in the Wollongong Council's 'City of Innovation' branding, development of the University of Wollongong's Innovation Campus and associated business accelerators and science museum.[4] The Project represents a reversal of the trend in industrial decline experienced over recent decades and an opportunity for expansion of industrial employment in the region through direct and indirect job opportunities.

Community Health Impacts associated with Heavy Industries

The coincidence of community health impacts from heavy industries has been documented in a variety of international contexts.[5] Air quality is implicated in higher incidences of heart disease and respiratory illnesses such as asthma, particularly among more vulnerable individuals and groups (such as children or the elderly).

[3] Wollongong City Library 2022, 'Port Kembla', https://www.wollongong.nsw.gov.au/library/explore-our-past/your-suburb/suburbs/port-kembla, accessed 16 August 2022; Bluescope Illawarra 2022, 'Our History', https://www.bluescopeillawarra.com.au/about-us/our-history/, accessed 16 August 2022.

[4] Regional Development Australia 2018, 'Illawarra Shoalhaven Smart Region Strategy', https://www.rdaillawarra.com.au/assets/ACDC-Project/e1e2cfa76c/Illawarra-Shoalhaven-Smart-Region-Strategy-Endorsed-with-Logos-1.pdf, accessed 16 August 2022; Wollongong City Council 2018, 'Our Wollongong 2028: Community Strategic Plan', https://www.wollongong.nsw.gov.au/__data/assets/pdf_file/0025/34918/Our-Wollongong-2028.pdf, accessed 16 August 2022.

[5] Rahman, M.M., Alam, K. and Velayutham, E., 2021, 'Is industrial pollution detrimental to public health? Evidence from the world's most industrialised countries', *BMC Public Health*, 21(1), pp.1-11.

The incidence of long-term health conditions for the Illawarra region are higher across all categories reported in the 2021 Australian Census when compared to the NSW and Australian averages,[6] including respiratory illnesses and cancers. A number of sensitive receptors including residential areas, schools and aged care facilities are within close proximity (<2 km) of the Project Site, including a number of public schools and aged care facilities. Potential public health impacts associated with industrial pollutants which may be generated by the Project will therefore be a key area of focus in the second phase SIA.

6.7.2 Potential Social Impacts

The scoping of potential social impacts was initially facilitated through consideration of the updated SIA Scoping Tool that complements the SIA Guideline (DPE 2021a, 2021c). The scoping tool identifies the social impacts that are considered likely to occur, and the corresponding level of assessment for each social impact. Use of the updated SIA Scoping Tool allows for the level of assessment for the potential social impacts to be identified, which in this case was determined to be 'detailed assessment'.

The social impact assessment approach utilised follows DPE's Social Impact Assessment Technical Supplement guidance on evaluating the likely significance of both potential positive and negative social impacts (DPE, 2021b). The first phase SIA provides a preliminary desktop assessment of these potential impacts while the second phase SIA, that will be incorporated into the EIS, develops this preliminary assessment into a full assessment report. The full assessment report provides a detailed analysis of the potential impacts and incorporates primary data informed by key stakeholder feedback.

An outline of the methodology the second phase SIA will follow is provided below. The second phase SIA will elaborate potential cumulative impacts in view of recent and proposed industrial and other large-scale projects in the Project's Social Locality.

As this is a first phase SIA, this impact assessment is preliminary in nature and makes assumptions based on the desktop assessment and prior industrial development SIA experience. The identified potential impacts listed in **Table 6-4** will be ground-truthed, supplemented by key stakeholder feedback, and reviewed against any changes associated with further design development subsequent to issuing the SEARs. Further development of this assessment in the second phase SIA will include application of DPE's social impact significance matrix, and an assessment of both pre and post management and mitigation scenarios.

Table 6-4 Preliminary Social Impact Assessment

Impact activity	Description of Impact	Impact Categories	Project Phase
Construction Amenity (including Noise, Vibration, Dust)	Potential negative impacts from earthworks and/or other heavy machinery used during construction activities, dust from ground disturbance.	Way of Life, Health and Wellbeing	Construction
Construction Traffic	Potential negative impacts from increased traffic due to construction related activities, including the transportation of goods and workers to site.	Way of Life, Health and Wellbeing	Construction

[6] Australian Bureau of Statistics 2022, *2021 Census Community Profiles*, https://www.abs.gov.au/census/find-census-data/search-by-area, accessed 15 August 2022.

Impact activity	Description of Impact	Impact Categories	Project Phase
Construction and Operation Employment	Potential benefits from increased employment within the local community stimulated by the Construction and Operation Phases of the Project.	Way of Life, Livelihoods	Construction
Construction Procurement	Potential benefits for local suppliers and supporting industries associated with procurement for the Construction Phase of the Project.	Way of Life, Livelihoods	Construction
Operational Traffic	Potential impacts from increased traffic due to operation related activities, including the transportation of goods to and from the site, and increased employee numbers.	Way of Life, Health and Wellbeing	Operation
Operation Amenity (including Noise, Vibration, Visual)	Potential negative impacts including perceived negative impacts on surrounding sensitive receptors due to increased operational noise and vibration levels, and/or changed visual amenity.	Way of Life, Health and Wellbeing	Operation
Operational Human Health and Safety (Air Quality and Community Health)	Potential negative impacts including perceived negative impacts and community health impacts on surrounding sensitive receptors due to air emissions.	Way of Life, Health and Wellbeing	Operation
Operational Human Health and Safety (Hazardous Substances)	Potential negative impacts from the transportation, storage, and use of hazardous substances on site.	Way of Life, Health and Wellbeing	Operation
Closure and Decommissioning Employment	Potential impacts from loss of employment associated with Project closure and decommissioning.	Way of Life, Livelihoods	Closure and Decommissioning

6.7.3 Assessment Approach

This section outlines the plan for developing the second phase SIA, in accordance with the requirements of the Social Impact Assessment Guideline and Technical Supplement (DPE, 2021a, 2021b). Accordingly, the second phase SIA will be structured according to the following sections:

1. **Introduction, Project Description, Regulatory Context**

   This section will provide a detailed overview of the Project locality, components, stages, and history. It will also provide a detailed review of the legislative and regulatory framework applicable to the SIA, taking into account relevant company policies.

2. **Social Locality and Stakeholder Identification**

   This section will elaborate on the preliminary outline of the Project's Social Locality. The update will incorporate regulator and client feedback on the preliminary identification and provide an updated stakeholder list as the SIA moves into the second phase and more information becomes available.

3. Methodology

The impact assessment methodology to be applied to the second phase SIA follows DPE's (2021b, pp 12-13) Social Impact Significance matrix, as depicted in **Table 6-5**.In this matrix, the likelihood level refers to the probability of a social impact's occurrence as a result of the Project while the magnitude is considered in terms of the following elements:

- **Extent:** Who specifically is expected to be affected (directly, indirectly, and/or cumulatively), including any potential vulnerable people? Which location(s) and people are affected? (e.g., near neighbours, local, regional).
- **Duration:** When is the social impact expected to occur? Will it be time-limited (e.g., over particular Project phases) or permanent?
- **Severity**: What is the likely scale or degree of change? (e.g., mild, moderate, severe).
- **Intensity:** How sensitive/vulnerable (or how adaptable/resilient) are affected people to the impact, or (for positive impacts) how important is it to them? This might depend on the value they attach to the matter; whether it is rare/unique or replaceable; the extent to which it is tied to their identity; and their capacity to cope with or adapt to change.
- **Level of Concern/Interest**: How concerned/interested are people? Sometimes, concerns may be disproportionate to findings from technical assessments of likelihood, duration and/or severity. Concern itself can lead to negative impacts, while interest can lead to expectations of positive impacts.

The characteristics of the magnitude of impact combine with their likelihood of occurrence to yield a rating of social impact significance, as indicated in **Table 6-5**. The social impact significance matrix depicted in **Table 6-5**will be applied to yield the initial evaluation of social impacts that are likely to be experienced by different groups within the Project's Social Locality.

Table 6-5 Adapted Social Impact Significance Matrix

Likelihood level	Magnitude level: 1 Minimal	2 Minor	3 Moderate	4 Major	5 Transformational
An Almost certain	Medium	Medium	High	Very High	Very High
B Likely	Low	Medium	High	High	Very High
C Possible	Low	Medium	Medium	High	High
D Unlikely	Low	Low	Medium	Medium	High
E Very unlikely	Low	Low	Low	Medium	Medium
F Positive	P1	P2	P3	P4	P5

4. Stakeholder Engagement for SIA

This section will provide a summary of stakeholder engagement relevant to the SIA. Key stakeholder interviews specific to the SIA will be conducted as part of wider stakeholder engagement activities. SIA tailored questions and discussion topics will guide semi-structured interviews with key informants in a manner designed to elicit honest responses underpinned by free, prior informed consent of the participants. The broad categories of stakeholders to be targeted for the SIA include: host landowners, neighbouring landowners, Traditional Owner groups, local governments, local businesses and representative groups, social and community service providers, and the wider community. More extensive details of stakeholder engagement activities will be included in appendices, where relevant.

The draft BSL Stakeholder Engagement and Communications Strategy provides an overview of the communication and engagement activities, and timing including key engagement during 2022. Stakeholder inputs required for the SIA will be coordinated within the broader program of stakeholder engagement outlined in the draft Plan.

5. **Social Baseline**

   This section will update and expand on the community profile outlined above. The preliminary desktop assessment will be supplemented and ground-truthed with data obtained during fieldwork, including from stakeholder engagement activities outlined above.

6. **Social Impact Assessment and Management**

   This section addresses potential social impacts providing an impact assessment informed by stakeholder engagement. This section also provides a summary of all of the impact assessment mitigations which have applied to the Project through all phases, including earlier phases of planning and development. Two ratings will be provided in the impact assessment table covering pre- and post-mitigation/management levels of impact significance, including residual impacts.

7. **Monitoring and Management Framework**

   This section will provide an overview of the recommended monitoring and social impact management measures that are to be put in place covering both the construction and operation phases of the Project. For the post-mitigation impact significant levels to be achieved, the social impact mitigations outlined in this section will need to be implemented according to the plan outlined in this section.

8. **References**

   List of all documents and other resources cited in the SIA.

9. **Appendices**

   Appendices will include community profiles and other supporting information such as summaries of stakeholder engagement and primary research.

6.8 Hazards and Risks

This section provides a preliminary assessment of environmental hazards and risks that could arise during the operation of the Project. Specifically, it considers hazards and risks associated with hazardous materials, contamination, and bushfire.

6.8.1 Preliminary Hazard Analysis (PHA)

6.8.1.1 Existing Environment

As part of the current operations at PKSW, existing hazardous or potentially hazardous activities may be undertaken or could be undertaken during the construction, commissioning, operational and decommissioning phases of the proposed Project, given that the site is located within an industrial precinct. Chapter 3 of the Resilience and Hazards SEPP applies to all developments that are considered to be potentially hazardous industry or potentially offensive industry and aims to ensure that industrial proposals only proceed if they are suitably located and are able to demonstrate that they can be built and operated with an appropriate level of safety.

6.8.1.2 Assessment Approach

- A PHA will be undertaken as a component of the EIS, which will assess the potential hazards and risks associated with the Project in accordance with the requirements of Chapter 3 of the Resilience and Hazards SEPP.

- The PHA will evaluate the potential safety issues and impacts during construction and operation of the Project including emergency matters and propose management and mitigation measures where appropriate. It will include a detailed risk assessment for construction and operational hazards and risks for the Project, and will incorporate the following:
- Operational Hazards and Risk Assessment; and
- Construction Safety Study.
- The PHA will be prepared in accordance with the following guidelines and resources:
- Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) 2021;
- Assessment Guideline: Multi-level Risk Assessment (Department of Planning and Infrastructure, 2011);
- Hazardous Industry Planning Advisory Paper No 6: *Hazard Analysis* (HIPAP No 6) (Department of Planning, 2011); and
- Hazardous Industry Planning Advisory Paper No 7: *Construction Safety* (HIPAP No 7) (Department of Planning, 2011).

6.8.2 Contamination

6.8.2.1 Existing Environment

The wider PKSW site is impacted by contamination of soil and groundwater given the site's current and previous land uses. Review of the acid sulfate soil risk mapping (DPE,2022) indicated that the ASMAP Project Site is not mapped as having probability of acid sulfate soils (ASS). Given that the wider PKSW site exists on an area developed from the reclamation and extensive filling from Tom Thumb Lagoon, the fill material at the ASMAP Project Site comprises of gravelly sand fill with slag and sandy gravelly clay.

A search of the POEO Act register (NSW EPA, 2021) identified that an Environmental Protection Licence (EPL) was issued to BSL on 04 August 2000 for the PKSW (EPL 6092). Additionally, a search of the list of NSW contaminated sites notified to the EPA (NSW EPA, 2022) identifies the PKSW as a contaminated site.

BSL continues to conduct an annual groundwater monitoring event by a third-party consultant and compare groundwater and surface water results against relevant criteria and historical results in order to meet compliance with EPL 6092 Condition E3.1 (Contamination Monitoring and Assessment Program).

During construction phase, there is potential to encounter contaminated materials during excavation works and a potential for fuel spills to occur. Operational impacts include potential spills from vehicle movements. All contamination impacts will be assessed during the EIS phase, according to the requirements of Chapter 4 of the Resilience and Hazards SEPP.

6.8.2.2 Assessment Approach

An assessment of soil contamination at the Project Site will be undertaken as a component of the EIS. The assessment will involve undertaking a review of existing operations and land use to ensure that the activities of the ASMAP Project do not further contribute to the soil contamination in areas previously known to be contaminated within the PKSW site.

The assessment will incorporate the following:

- A review of the previous environmental investigations including the recent borehole well sampling across the existing plate mills site (August 2022), regulatory agency statements / reports and other relevant databases searches;
- A site inspection to confirm available information collected during the desktop assessment; and
- A draft Preliminary Site Investigation (PSI) report will be prepared in accordance with NSW EPA regulatory guidance if the results of the review and site inspection indicate it is required.

6.8.3 Bushfire

6.8.3.1 Existing Environment

Bushfire presents a threat to human life and assets and can adversely impact ecological values. Bushfire risk can be considered in terms of environmental factors that increase the risk of fire (fuel quantity and type, topography and weather patterns), as well as specific activities (such as hot works and construction activities) or infrastructure components that exacerbate combustion or ignition risks (such as transmission lines and other electrical components).

A review of the NSW RFS Bushfire Prone Land mapping (RFS, 2015) confirms that the PKSW is not currently recognised as bushfire prone. However, other neighbouring properties to the north, north-west and west are mapped as bushfire prone land (refer to **Figure 6-3**).

6.8.3.2 Assessment Approach

The EIS will include a Bushfire Risk Assessment, which will aim to identify potential hazards and risks associated with bushfires / use of bushfire prone land. The assessment will aim to demonstrate that the Project can be designed, constructed and operated to minimise ignition risks and provide for asset protection consistent with the *NSW Rural Fire Service Guidelines - Planning for Bushfire Protection 2019* (RFS, 2019).

The Bushfire Risk Assessment and mitigation strategies will be guided by the following factors that contribute to bushfire risk:

- Fuels, weather, topography, predicted fire behaviour and local bushfire history;
- Suppression resources, access (roads, tracks) and water supply; and
- Values and assets.

Mitigation will be a combination of complementary strategies, all of which are required to provide the best possible protection outcome for the PKSW operations and the community.


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NORMAN STREET
WOODLAWN AVENUE
ST JOHNS AVENUE
EASTERN AVENUE
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SEAWALL ROAD
TARAGO ROAD
TOM THUMB ROAD
FARRER ROAD
MORTON WAY
YAMPI WAY
CHRISTY DRIVE
JARVIE ROAD
STEEL STREET
LAKE AVENUE
PARADE
FLINDERS STREET
ARAWATA DRIVE
OLD PORT ROAD
FORESHORE ROAD
FIVE ISLANDS ROAD
WATTLE STREET
DARCY ROAD
KING STREET
SHELLHARBOUR ROAD
STEELTOWN LANE
COWPER STREET
THIRD AVENUE
SECOND AVENUE
FIRST AVENUE
BENT STREET
ANNA AVENUE
JANE AVENUE
Legend
Site Boundary
Major Road
Minor Road
Path/Track
Bushfire Prone Land
Vegetation Category 1
Vegetation Buffer
Source:
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Bushfire Prone Land Mapping
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Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
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6.9 Hydrology and Groundwater Quality

6.9.1 Existing Environment

Hydrology and Groundwater

The PKSW is located within the Allans Creek Catchment, which has a total area of 45 km^2 and serves as the main source of freshwater inflow into Port Kembla Harbour. The overall topography of the PKSW is relatively flat at approximately 5-12 m ASL with only slight variances in elevation. The local hydrology is displayed in . Given the general topography and based on previous borehole studies, the inferred direction of groundwater beneath the site generally flows towards Allans Creek.

Groundwater contamination has been monitored from 2013 (Stage 1) under EPL 6092 through an extensive groundwater monitoring network of 54 wells, including routine monitoring and assessment of identified contamination against relevant criteria, licence limits and historical contaminant levels. Groundwater monitoring continued in 2015 (Stage 2) which included risk based targeted soil and groundwater investigation of identified areas of environmental concern. Previous groundwater monitoring studies (JBS&G, 2019-2021) as part of the annual monitoring program have indicated that on-site groundwater has elevated concentrations of heavy metals, organic and inorganic contaminates above the relevant screening criteria.

Under the *Water Management Act 2000*, water access licences and controlled activity approvals are required for certain activities. It is not anticipated that the activities to be carried out as part of the ASMAP Project will require water access licences.

Flooding

The Allans Creek Flood Study was prepared by Advisian (2019) on behalf of the Wollongong Council LGA, and this study included the recent improvements in flood modelling technology, availability of new data, and changes in the catchment. The study mentioned that Allans Creek catchment has a history of flooding over the past decades with the most significant flood events recorded back in August 1998 and October 1999. A review of the Design Flood Mapping Extent in the study showed that the Project site is not mapped within the 1% Annual Exceedance Probability (AEP) event and the Probable Maximum Flood (PMF) extent. The Project Site is located predominantly upstream of the Allans Creek catchment and till to date there are no known flooding events reported to have occurred on BSL land at PKSW near to Allans Creek. The Project site will be contained within existing buildings at the Plate Mill and KW building and thereby potential erosion and sediment run-off risks during construction and operation phase of the Project is not currently anticipated. Further assessment of the implications of flooding risks on and from the Project will be studied during the EIS phase.

6.9.2 Assessment Approach

A Hydrology and Flooding Assessment will be undertaken for the Project, which will include a review of standard construction and operational environmental management plans to ensure that impacts are adequately mitigated through avoidance, minimisation and management. The assessment will be 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).

In addition, the assessment will also aim to:

- Determine the preventive maintenance furnace cooling system changes from once through saltwater to closed circuit cooling detailed in **Section 3.4.4** above;
- Review existing stormwater (assets and discharge points) and catchment conditions;
- Consider the potential impacts of the Project on hydrology and groundwater and determine whether there is need for further hydrological investigations and management of contaminated groundwater;

- Review the onsite and offsite effects of the Project on surface water, through understanding water demands and supplies, water management measures, water reuse and recycling and water treatment;
- Assess flood risks and floodwater interaction with the PKSW;
- Identify and quantify sources of water required during construction and operation of the Project;
- Determine whether any water access licences under the *Water Management Act* 2000 will be required and whether the existing site EPL will require modification in relation to the two licensed discharge points impacted by the ASMAP Project. All required licences and approvals will be obtained prior to the commencement of construction activities.
- The Hydrology and Flooding Assessment will be generally undertaken in accordance with the following guidelines and resources:
- Managing Urban Stormwater; Soils & Construction (Landcom, 2004);
- Floodplain Risk Management Guidelines (Department of Environment and Climate Change, 2016); and
- Floodplain Development Manual: The management of flood liable land (NSW Government, 2005).

Local Hydrology

F6-4

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6.10 Soil and Geology

6.10.1 Existing Environment

Soils

A review of the DPE's eSpade soil and land information database and soil and land capability mapping data for Port Kembla (OEH, 2015) indicates that the site and surrounding area fall within landscapes classified as *Disturbed terrain*. The original soil within the Project Site has been removed, greatly disturbed or buried. The disturbed sites are eventually artificially topsoiled and revegetated or covered by concrete and bitumen. Most of these areas have been levelled to slopes of <5% and the original vegetation has been completely cleared. The land use within and immediately around the PKSW site is a multipurpose industrial area which is used for operations, manufacturing, ancillary facilities, storage, port berths, internal roads and offices.

A preliminary review of the Soil and Land Capability Mapping data for NSW (OEH, 2012) suggests that the land under the Project Site and the wider PKSW has not been assessed. The north of the site is classified as *Class 6 – Very severe limitations* whereas the west of the PKSW site is classified as *Class 4 – Moderate to severe limitations*. The Soil and Groundwater Investigation at the Mills and Packaging Sites at PKSW (JBS&G, 2016) inferenced that well ID# MP_MW10 (located at the proposed plate mill furnace) to be consisting of fill material comprising of gravelly sand fill, with slag up to 6 m below ground level (bgl) and then sandy gravelly clay up to 10 m bgl. Fill material was generally underlain by brown and grey sands and sandy clays.

A search of the Australian Soil Classification (ASC) Soil Type Map of NSW (OEH, 2017) reveals that a large extent of the PKSW site has not been assessed. However, the north of the site predominantly consists of Kurosols (KU) soils which are formed from parent materials that are highly siliceous, siliceous to intermediate in composition. A map of land and soil capability classes in the vicinity of the PKSW is provided in **Figure 6-5**.

A search of the Acid sulfate soil risk mapping via eSPADE.v2 indicated that the Project Site is mapped as *Disturbed terrain* (X4) indicating areas which have been previously mined or filled or have been subjected to other significant soil disturbance activities. A map unit having the landform code X4 indicates that the area is disturbed terrain (X) with an elevation > 4 m AHD. Assessment of environmental risk in areas of disturbed terrain will require soil investigation based on the nature of the existing land disturbance and elevation of the site.

Geology and Surrounds

The geology at the Project Site consists of artificial fill and includes dredged sand or mud, rocks and local soil materials that was reclaimed to form the foreshore area. The JBS&G report (2016) identified the local geology at the site to broadly consist of:

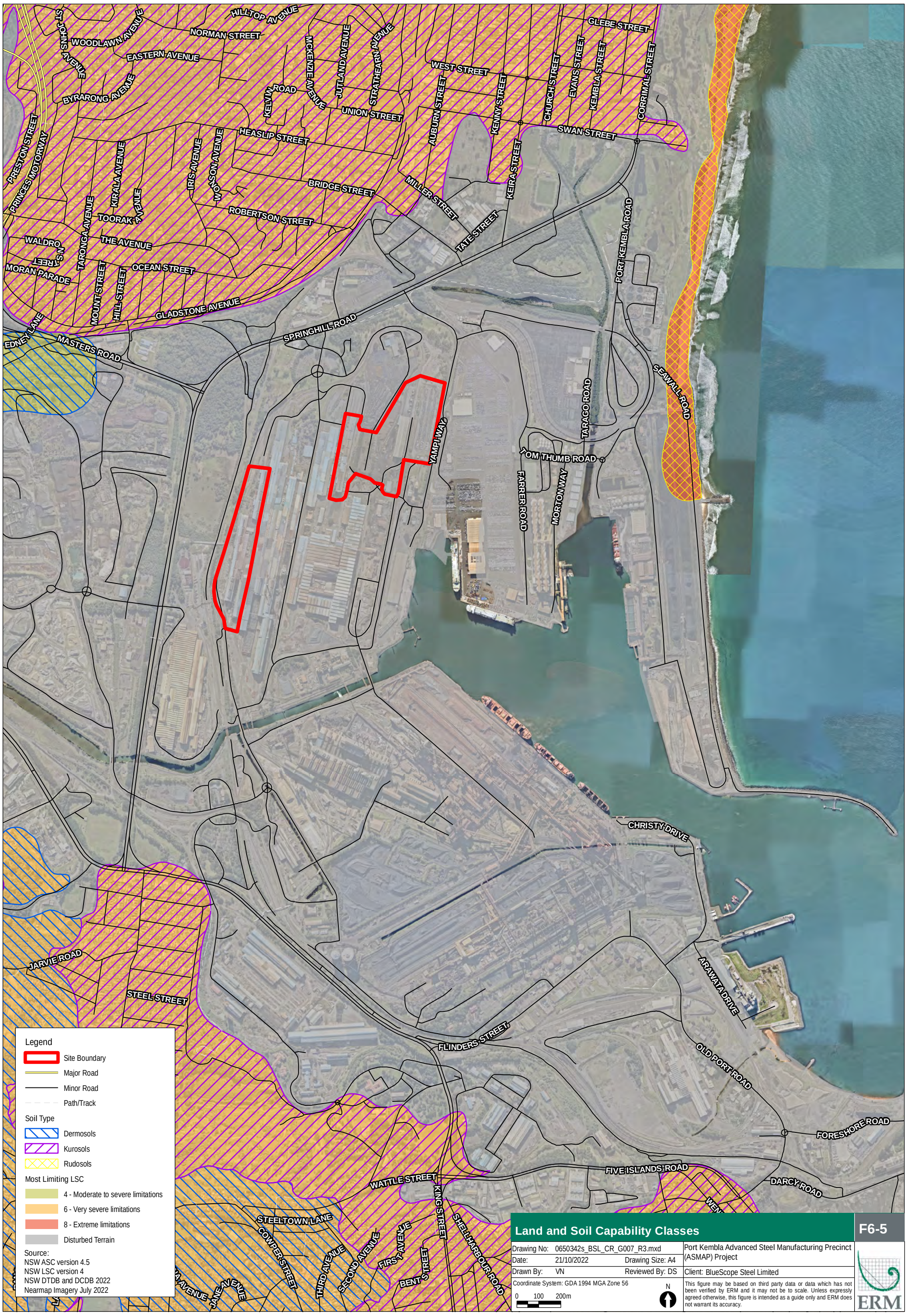
- Fill material (0-6 m) - variable quality and composition of slag material, dredged sands and coal wash materials of varying thicknesses, generally in the order of 4-6 m deep and of high permeability;
- Estuarine sediments (6-15 m) - including interbedded sands, silts, clays and muds of variable thicknesses; and
- Deeper bedrock material - reported as present at depths from 19 m bgl as weathered latite underlain by sandstone in some areas.

6.10.2 Assessment Approach

The proposed Project Site has been in operation for over 60 years and there is a history of soil and ground contamination in its vicinity. A detailed geotechnical assessment of the soil and landform of the Project Site will be undertaken for the EIS. The assessment will consider the impacts of soil disturbance and erosion from excavation works and propose mitigation measures during construction and operation of the Project.

The Geotechnical Assessment will assess the subsurface soil and groundwater conditions across the Project Site, in order to determine:

- An appropriate site classification in accordance with the requirements of AS2870-2011 (Residential Slabs and Footings);
- An appropriate foundation system for the Project's footing options;
- Suitable parameters for the design of new pavements; and
- Site preparation measures for buildings and pavements together with any earthworks requirements.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TOM THUMB ROAD
FARRER ROAD
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SHELLHARBOUR ROAD
STEELTOWN LANE
COWPER STREET
THIRD AVENUE
SECOND AVENUE
FIRST AVENUE
BENT STREET
JANE AVENUE
Legend
Site Boundary
Major Road
Minor Road
Path/Track
Soil Type
Dermosols
Kurosols
Rudosols
Most Limiting LSC
4 - Moderate to severe limitations
6 - Very severe limitations
8 - Extreme limitations
Disturbed Terrain
Source:
NSW ASC version 4.5
NSW LSC version 4
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Land and Soil Capability Classes
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Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
ERM

6.11 Air Quality and Greenhouse Gas Assessment

6.11.1 Existing Environment

Meteorological data from the Port Kembla Signal Station (068053) located in Port Kembla (BoM, 2022) indicated that the mean annual maximum temperature was 21 °C while the mean annual minimum temperature was 14.4 °C upon using all years of data. The mean annual rainfall was ~1260.6 mm with most of the rainfall occurring between October and March. It was observed that the mean annual 9 am wind speed was 17.4 km/hr in the south-west direction. The mean annual 3 pm wind speed was 24.4 km/h and predominantly in the north-east and south directions.

The air quality assessment will specifically address the potential emissions anticipated from the proposed sources of emissions (e.g., new Walking Beam Furnace stack) and potential air quality impacts arising from the new Wind Tower Manufacturing Facility. Other point and fugitive emission sources will be considered for determining the impact on air quality during the construction and operation phases of the Project.

6.11.2 Assessment Approach

Air emissions from the existing and proposed operations at PKSW will be assessed within an Air Quality Impact Assessment (AQIA) that is conducted in accordance with *The Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (NSW EPA 2022).

The AQIA will be required to demonstrate compliance with ambient air quality criteria that are applied in NSW as being protective of air quality. Where compliance is not demonstrated, the Applicant is required to review emission control measures, and subsequently demonstrate that compliance is achieved. The EIS will include a qualitative assessment of potential air quality impacts for the construction phase of the project and propose appropriate management and mitigation measures. The EIS will also include a quantitative assessment of potential air quality impacts for operational air emissions and include any cumulative impacts.

Air emission limits developed within the AQIA are commonly carried/updated into the EPL for the site, to ensure that adverse air quality impacts are not generated during the operational phase. The AQIA will also consider dust/fume extraction and collection system in the plate cutters and in the wind manufacturing facility.

Quantification of Greenhouse Gas (GHG) emissions will also be included in the assessment, given that the Project is expected to introduce a number of improvements with the installation of the new walking beam furnace, better utilization of the coke oven gas and upgrades to the electrical systems. The assessment will be carried out in accordance with the GHG Protocol (WRI & WBCSD, 2004), IPCC and Australian Government GHG accounting/classification systems.

6.12 Waste Management

Management of the waste generated will be undertaken in accordance with the principles of the waste management hierarchy. Waste streams that are generated during the construction/demolition and operational phases of the project will be quantified and classified in accordance with the *Waste Classification Guidelines (NSW EPA, 2014)* during the EIS phase of the Project. Specific items to be discussed will include:

- Slag and Scale Management in the operational phase including handling and recycling;
- Asbestos waste management from existing equipment; and
- COG condensate residues from existing furnaces at the facility.

The EIS will also place emphasis on the identification of waste handling procedures, necessary management measures and waste minimisation and potential reuse opportunities.

6.13 Cumulative Impacts

A consideration of the anticipated cumulative impacts for the Project will be undertaken as required by *DPE's Cumulative Assessment Guidelines (2021)*.

The proposed Project is situated within the PKSW industrial precinct, which primarily serves industrial and port-related land uses. The Project Site is located within the PKSW and projects in the vicinity of the proposed Project include:

- HyKembla – Hydrogen Electrolyser Pilot Plant Project;
- BSL's No. 6 Blast Furnace Reline and Operations;
- Commodity Logistics and Import Project;
- Port Kembla Gas Terminal Project;
- Port Kembla Power Station Project;
- Port Kembla Bitumen Import and Dispatch; and
- Manildra - Port Kembla Bulk Liquid Terminal Project.
- 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.

Table 6-6 Potential cumulative impacts associated with existing operations

Aspect	Potential Cumulative Impacts
Air Quality	Emissions from the operations at the existing PKSW are vented via numerous stacks, including 88 licensed stacks as identified in EPL 6092. With the associated point and fugitive emission sources of the ASMAP Project, the emission profile might be altered for the overall PKSW operations. The potential cumulative impacts of the Project on air quality will be assessed within the AQIA prepared for the EIS.
Noise	The Project may have potential noise impact in the locality and on the existing and future development on nearby land zones in the locality and may result in significant cumulative impacts. The potential cumulative impacts of the Project on noise will be assessed within the detailed assessment prepared for the EIS.
Traffic	Current road and rail traffic movements at the PKSW are detailed in **Section 3.4.3** and an increase in traffic movements for the proposed Project has the potential to have cumulative impacts on local traffic. Potential cumulative impacts of the Project on traffic will be subject to detailed assessment within the TIA prepared for the EIS.
Contamination	The potential cumulative impacts of the Project specifically in relation to soil and groundwater contamination will be assessed within the PSI prepared for the EIS.

6.13.1 Cumulative Impact Assessment Approach

The Cumulative Impact Assessment Guidelines for State Significant Projects (DPIE, 2021c) provides a framework for assessing and managing project-level cumulative impacts. The guideline defines six key steps in cumulative impact assessment, as detailed in **Figure 6-6.**

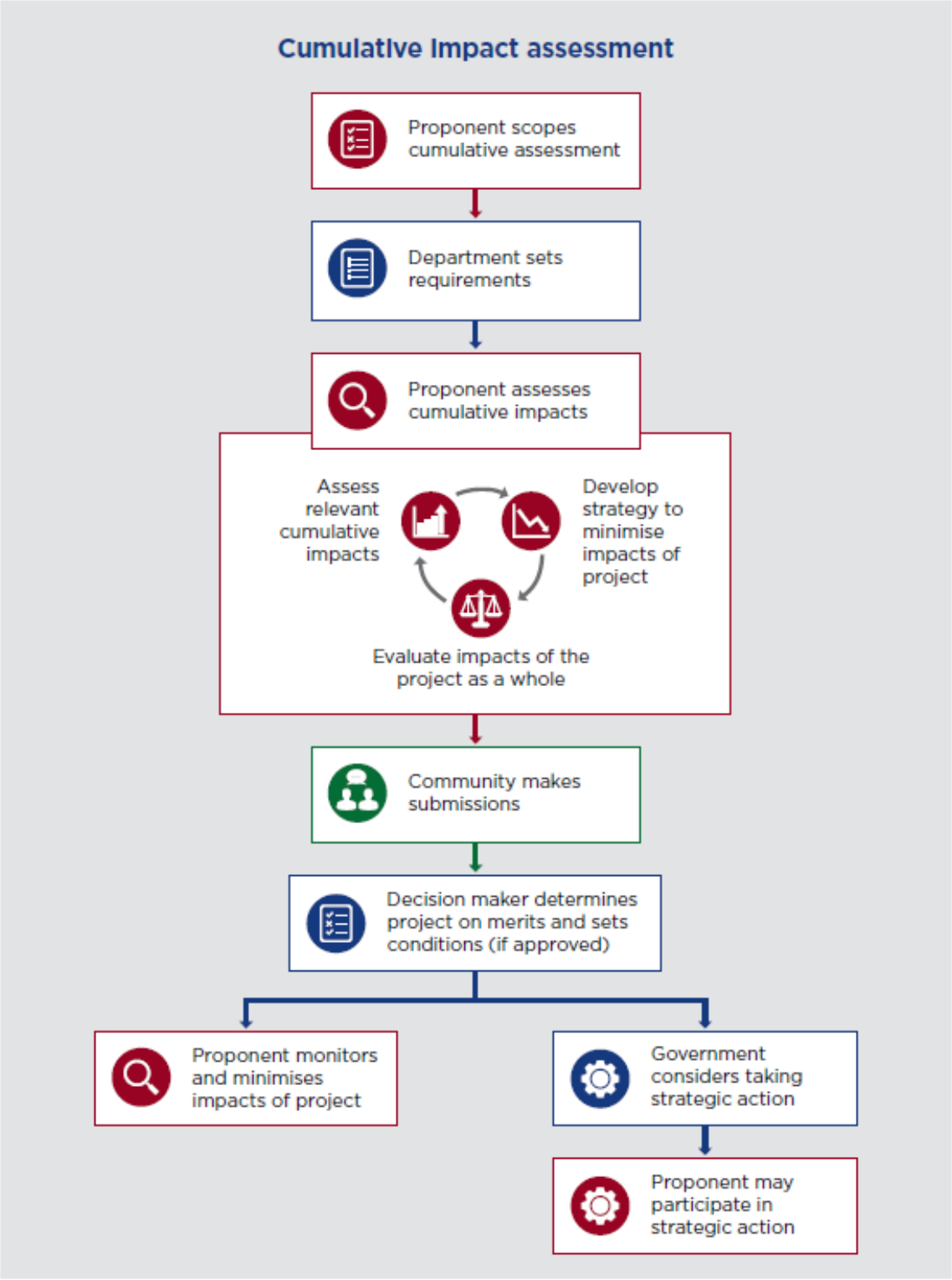

Figure 6-6 Key Steps in Cumulative Impact Assessment

Source: (DPIE, 2021c)

The cumulative impact assessment to be undertaken as part of the EIS is scoped during the Scoping Report phase, and is to include consideration of key questions, as detailed in **Table 6-7**. The potential cumulative impacts during each stage of the Project are outlined in **Table 6-8**.

Table 6-7 Scoping Cumulative Impacts – Key Questions

Scoping Questions	Considerations	Commentary
What to assess	Government strategic planning framework for the area having regard to any relevant legislation, plans, policies or guidelines	Consideration of key legislation, plans, policies or guidelines is provided in **Section 4**. Site setting and features from a regional and local context are discussed in **Section 2.1**, which notes: ■ The new walking beam furnace, wind tower manufacturing facility and all other works associated with the proposed Project will be within the wider PKSW operated by BSL. ■ The key land uses and economic activities within the immediate vicinity of the PKSW are industrial. ■ The closest residential areas are within a radius of 1.5 km from the site. Located in a northerly direction are Coniston and Mount Saint Thomas and south of the site is Cringila. The PKSW is located within the Allans Creek Catchment, which serves as the main source of freshwater inflow into Port Kembla Harbour. ■ The proposed Project is located within the PKSW area which is an industrial precinct and is surrounded by a number of industrial developments as detailed in **Section 2.1.3**. There is potential for the impacts of these proposed projects to combine with the potential visual and environmental impacts of the Project, generating cumulative impacts that are greater than the impact of each project individually. The following broad key matter categories have been identified as having potential cumulative impacts that will require further consideration at the EIS stage: ■ Access (transport and traffic); ■ Amenity (noise); ■ Air Quality; and ■ Contamination.
	The Project and other potentially relevant future projects that may be developed over the same time period or similar timeframes as the Project	
	Potentially material impacts on features including National Parks and other protected areas, environmentally sensitive areas, threatened species and ecological communities, important natural resources, culturally significant resources, key infrastructure and industries, sensitive landuse zones, population centres, settlements and residential areas.	
	The likely scale and nature of the cumulative impact of these projects.	
What study area	Study area selected for the cumulative impact assessment of each matter will vary depending on the specific characteristics of the assessment matter and the scale and nature of the potential impacts on the matter resulting from the project with other relevant future projects.	The study area for each matter will be subject to cumulative assessment and will be guided by the relevant technical assessments and locality features.
Over what time period	Like the study area, the time period selected for the cumulative impact assessment on each matter will vary depending on the characteristics of the matter and the scale and nature of the potential impacts on the matter. In most cases, the period selected is likely to match the life of the project (e.g., 25 years). However, in some cases the period selected may be much shorter than this and cover a single phase of the project, or much longer.	The proposed timeframe for the development of the Project is: ■ Planning and Approvals: completion Q2 2023 ■ Construction: Staged from 2023 to 2025 ■ Operation: from 2026 Various levels of cumulative impacts may occur during the various Project phases, as detailed in **Table 6-8.**

Scoping Questions	Considerations	Commentary
What projects to include	Build upon past and current operating project assessments by considering the cumulative impacts of the proposed project on key matters when other future proposed projects are included in the assessment.	The proposed Project is located in the PKSW industrial precinct and is surrounded by a number of industrial developments as detailed in **Section 0**. There is potential for the impacts of these proposed projects to combine with the potential visual and environmental impacts of the Project, generating cumulative impacts that are greater than the impact of each project individually. There may also be cumulative benefits to local communities from these projects, through the creation of new employment opportunities and through their contribution to the local and regional economies.

Table 6-8 Cumulative Impacts and Timeframes

Project Phase	Estimated Timeframe	Likely Scale of Impact	Duration of Impact	Potential Cumulative Impacts
Assessment		Minor	Temporary	Social – community health and wellbeing
Approval		Minor	Temporary	Social – community health and wellbeing
Construction		Moderate	Temporary	Air Quality Noise and vibration Transport and traffic Hazards and Risks – Contamination
Operation		Minor to Moderate	Ongoing during operations	Air Quality Noise and vibration Transport and traffic
Decommissioning		Moderate	Temporary	Social – community health and wellbeing Air Quality Noise and vibration Transport and traffic Hazards and Risks – Contamination

There may also be cumulative benefits to local communities from these projects, through the creation of new employment opportunities and through their contribution to the local and regional economies. Consideration of cumulative impact is provided in the Scoping Summary Table (**Appendix A**). In addition, a cumulative assessment will be undertaken as a component of the EIS in accordance with the Cumulative Impact Assessment Guidelines for State Significant Projects (DPIE, 2021c).

As per the DPIE Cumulative Impact Assessment Guidelines, a summary of the cumulative impacts to be assessed is provided in **Appendix G**.

7. CONCLUSION

A preliminary environmental assessment was undertaken to identify the potential matters associated with the proposed construction and operation of the Project that will require further assessment in the EIS. This preliminary assessment considered:

- The scale and nature of the likely impacts of the Project and the sensitivity of the receiving environment;
- Whether the Project is likely to generate cumulative impacts;
- The ability to avoid, minimise and/or offset the impacts of the Project, to the extent known at the scoping stage; and
- The complexity of the technical assessment of the Project.

The below **Table 7-1** identifies environmental aspects for which either a detailed or standard assessment is proposed to be undertaken.

Table 7-1 Proposed Assessment

Level of Assessment	Aspect
Detailed	Access – Traffic and Transport Air Quality and GHG Noise and Vibration
Standard	Visual Amenity Biodiversity Hydrology and Groundwater Quality Heritage –Aboriginal and Historic Social Hazards and Risks – Contamination Hazards and Risks - Preliminary Hazard Analysis Hazards and Risks – Bushfire Soil and Geology (Geotechnical) Waste Management

The EIS will be prepared in accordance with the SEARs to be issued by DPE in response to this Scoping Report. All assessments (including specialist assessments) will be completed by taking into consideration consultation with stakeholders and industry best practice guidelines.

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APPENDIX A SCOPING SUMMARY TABLE

Scoping Summary Table

Level of Assessment	Matter	Scale of Impact [7]	Nature of Impact [8]	Sensitivity of receiving environment[9]	Mitigation Measures Required	Cumulative Impact Assessment	Engagement	Relevant government plans, policies and guidelines	Scoping Report Reference
Detailed	Noise and Vibration	Moderate	Direct Cumulative Perceived	Sensitive (receptors)	Likely	Yes	General	■ EPA NSW Noise Policy for Industry (NPI) 2017 ■ The NSW Department of Environment and Climate Change, Interim Construction Noise Guideline (ICNG) (DECC, 2009) ■ NSW Road Noise Policy (RNP) (DECCW, 2011) ■ NSW Department of Environment and Conservation, Assessing Vibration: a technical guideline (DEC, 2006).	**Section 6.3**
Detailed	Access - Traffic and Transport	Moderate	Direct Indirect Cumulative	Sensitive (disturbance to other road users)	Likely	Yes	Specific	■ Guide to Traffic Generating Developments (RTA, 2002) ■ Austroads Guide to Road Design ■ Austroads Guide to Traffic Management	**Section 6.6**
Detailed	Hazards and Risks - Contamination	Moderate	Direct Indirect	Sensitive (safety)	Likely	Yes	General	■ Managing Land Contamination: Planning Guidelines SEPP 55 - Remediation of land (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)	**Section 6.8.2**
Detailed	Hydrology and Flooding	Moderate	Direct Indirect	Sensitive (local hydrology and water quality)	Likely	No	General	■ Managing Urban Stormwater; Soils & Construction (Landcom, 2004) ■ Floodplain Risk Management Guidelines (Department of Environment and Climate Change, 2016) ■ Floodplain Development Manual: The management of flood liable land (NSW Government, 2005)	**Section 6.9**
Detailed	Air Quality	Moderate	Direct Indirect Cumulative Perceived	Sensitive (local air quality)	Likely	Yes	General	■ The Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (NSW EPA, 2017). ■ National Greenhouse Accounts Factors (Australian Government, 2021) ■ NSW Climate Change Policy Framework (Office of Environment and Heritage, 2016)	**Section 6.11**
Standard	Amenity – Landscape and Visual	Low	Direct Cumulative Perceived	Sensitive (receptors)	Likely	Yes	General	■ Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment Third Edition (2013)	**Section 6.2**
Standard	Biodiversity	Low	Direct Indirect	Sensitive (ecological values)	Likely	No	General	■ Biodiversity Assessment Methodology (DPIE, 2020) ■ Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia, 2013) ■ Commonwealth Department of the Environment – Survey Guidelines for Nationally Threatened Species (various)	**Section 6.4 6.4**
Standard	Heritage – Aboriginal and Historic	Low	Direct Indirect	Sensitive (heritage values, cultural values)	Likely	No	Specific	■ Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010); ■ Heritage Act 1977; ■ NSW Heritage Manual (HO and DUAP, 1996);and ■ The Burra Charter (ICOMOS Australia, 2013).	**Section 6.46.4**
Standard	Social	Low	Direct Indirect Cumulative Perceived	Sensitive (social, environmental and economic values)	Likely	Yes	Specific	■ Social Impact Assessment Guideline for State Significant Projects (DPIE, 2021b) ■ Technical Supplement: Social Impact Assessment Guideline for State Significant Projects (Technical Supplement) (DPIE, 2021e)	**Section 6.7**
Standard	Hazards and Risks – Preliminary Hazard Analysis	Low	Direct Indirect Perceived	Sensitive (safety)	Likely	No	General	■ Chapter 3 of the State Environmental Planning Policy (Resilience and Hazards) 2021; ■ Assessment Guideline: Multi-level Risk Assessment (Department of Planning and Infrastructure, 2011);	**Section 6.8.1**

[7] Scale of Impacts – based on the severity of the impact, the geographical location and the duration of the impact as detailed in Appendix C of State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021).
[8] Nature of Impact - type of impact, i.e. direct, indirect, cumulative, perceived, as detailed in Appendix C of State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021).
[9] Sensitivity of the receiving environment – expressed in legislation, societal values, or vulnerability to change, as detailed in Appendix C of State Significant Development Guidelines – Preparing a Scoping Report (DPIE, 2021).

Level of Assessment	Matter	Scale of Impact [7]	Nature of Impact [8]	Sensitivity of receiving environment[9]	Mitigation Measures Required	Cumulative Impact Assessment	Engagement	Relevant government plans, policies and guidelines	Scoping Report Reference
								■ Hazardous Industry Planning Advisory Paper No 6: Hazard Analysis (HIPAP No 6) (Department of Planning, 2011); and ■ Hazardous Industry Planning Advisory Paper No 7: Construction Safety (HIPAP No 7) (Department of Planning, 2011).	
Standard	Hazards and Risks – Bushfire	Low	Direct Indirect	Sensitive (safety)	Likely	No	General	■ Planning for Bushfire Protection 2019 – NSW Rural Fire Service (RFS, 2019)	**Section 6.8.3**
Standard	Soil and Geology (Geotechnical)	Low	Direct Indirect	Sensitive (environmental values, landuse)	Likely	No	General	■ Soil and Landscape Issues in Environmental Impact Assessment (OEH, 2000); ■ AS 2870-2011: Residential Slabs and Footings; and ■ Assessment and Management of Hazardous Ground Gases: Contaminated Land Guidelines (EPA, 2020).	**Section 6.10**
Standard	Waste Management	Low	Direct Indirect	Sensitive (environmental values, safety)	Likely	No	General	■ Waste Classification Guidelines (DECCW, 2009)	**Section 6.12**

APPENDIX B STAKEHOLDER ENGAGEMENT STRATEGY

DRAFT Stakeholder Engagement Strategy (SES)

Port Kembla Steelworks
Advanced Steel Manufacturing Precinct (ASMAP) Project

1 September 2022

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1. Project Overview

BlueScope produces a wide range of steel products with operations located in Australia and across the world. The Port Kembla Steelworks (PKSW) is the largest steel production facility in Australia specialising in the production of flat steel products, including slab, hot rolled coil, cold rolled coil, plate, and coated and painted steel products.

BlueScope is proposing to upgrade certain existing steel manufacturing facilities location at PKSW to service new and growing markets in the renewables and defence sectors. BlueScope intends to modernise a part of the existing steel manufacturing facilities within PKSW. The Project is collectively referred to as the Advanced Steel Manufacturing Precinct (ASMAP) Project.

The ASMAP Project aims to enhance the supply of Australian steel by upgrading the existing plate steel production facility and to install a new wind tower manufacturing facility. It is anticipated that the proposed ASMAP project will also meet the *Responsible Steel* Standard attained by BlueScope in 2022.

The Project will require approval from the NSW Government. To formally initiate this process, BlueScope will prepare a Scoping Report to submit to the NSW Government signalling the start of the approval process.

The purpose of the Project Stakeholder Engagement Strategy (SES) is to provide an overview of the communication and engagement activities and timing including key engagement during each phase of the regulatory approvals process.

1.1 Objectives

The ASMAP SES documents the communications and consultation framework and activities that will be undertaken by BlueScope during the Project lifecycle spanning across development, construction and operational phases.

The strategy is intended to establish proactive communication and engagement with stakeholders in the community and help ensure that their concerns or issues are clearly understood and resolved.

The objectives of this strategy are to:

- Identify stakeholders with an interest in the Project;
- Develop a clear action plan for future engagement approaches across all stakeholder groups;
- Outline communications tools and channels;
- Provide clear, consistent and compelling messages about the benefits of the development;
- Identify opportunities for stakeholders and the community to raise concerns and provide feedback; and
- Identify opportunities to build positive sentiment across local media, businesses and other stakeholders.

The current version of the SES was prepared based on the information available at the time, and as part of the Scoping Report to be submitted to the NSW Government Department of Planning and Environment (DPE) in support of an application for Secretary's Environmental Assessment Requirements (SEARs) for the Project. The SES is a working document and will be updated over the project lifecycle.

1.2 Background

The engagement approach recognised the unique characteristics of Port Kembla Steelworks (PKSW), due to its positioning within the existing industrial precinct of Port Kembla. The PKSW operation was established in 1928 when the first (No.1) blast furnace was commissioned. Since then, the site has grown to house and activate heavy industrial steelmaking operations. Today, Port Kembla is an international trade gateway for bulk agricultural, construction, and mining industries and is home to the state's largest grain export terminal; it is also the state's second largest coal export port.

Port Kembla is a beachside suburb south of the centre of Wollongong LGA, and contains a variety of land uses including residential, heavy industrial and infrastructure. The suburb recorded a population of 5,088 people in 2021 (ABS, 2021).

2. Stakeholder Identification and Mapping

The SES has been designed to enable community members to be part of the Project planning and development process and to provide them with the opportunity to engage in a meaningful way.
Stakeholder identification was undertaken in the SES as part of the scoping phase for the Project, and a summary of the Project stakeholders is outlined in Table 2.1. The intention of the broader stakeholder assessment is to inform how communications and engagement will occur beyond the scoping phase to support the proposal through its planning and delivery.

An aerial assessment of adjacent and nearby neighbours indicated that the sites closest neighbours are existing BlueScope steelmaking sites. External to BlueScope's operations, nearby neighbours include NSW Ports, Inside Industry and BlueScope tenanted IN3 Heavy Industrial zoned premises (such as Veolia Depot and Australian Steel Mill). Given BlueScope's direct ownership and operation of adjacent landholdings and nearby sites to the Project location, the primary focus for the scoping engagement activities were focused on the broader community, representative and special interest groups, government agencies and elected officials and PKSW employees.

Table 2.1: Project Stakeholders

Stakeholder group	Targeted stakeholders	Key areas of concern
Nearby Neighbours	Inside Industry; NSW Ports; BlueScope owned and operated steelmaking sites	• Transport access impacts or changes (i.e. to tour operations) • Environmental changes • Community benefits • Construction impacts
Broader Community and Region	Illawarra region (residents and businesses); and the BlueScope Community Consultative Committee	• Environmental changes • Community benefits • Construction impacts • Transport impacts or changes

Representative or Special Interest Groups	First Nations representatives and organised groups; I3net; RDA Illawarra; Business Illawarra; Greater City Commission; Clean Energy Taskforce; Rechange Illawarra; Relevant neighbourhood forums	• Environmental changes (energy use, cultural heritage) • Transport access impacts or changes • Community benefits • Construction impacts • Local procurement / resourcing • Consideration of impacts
Government Agencies and Elected Representatives	Wollongong City Council; Department of Regional NSW; NSW Department of Planning and Environment; Transport for NSW; NSW Environment Protection Authority; EnergyCo; Federal and State Elected Ministers and Shadow Ministers;	• Community benefit • Consideration of impacts • Consideration and mitigation of concerns • Changes and proposed mitigation / management strategies • Transport access impacts or changes
BlueScope Employees (PKSW)	All Port Kembla Steelworks employees	• Assessment process • Community benefit • Regional economic development

	• Operational considerations (i.e. rostering)

3. Key Messages

The following messages aim to ensure a consistent and coordinated approach by the Project team when liaising with various stakeholder groups and will be used as the basis for public communication. An initial response or 'holding message' is recommended to acknowledge the submission of the scoping report and any community interest.

The key messages listed below are relevant for all stakeholder groups listed in Table 2.1.

Holding Message

- BlueScope is currently preparing a submission for the NSW Department of Planning and Environment to support development consent to modernise the facilities and infrastructure at the Plate Mill and construct a new wind tower manufacturing facility, located at the Port Kembla Steelworks.
- As part of this process BlueScope is engaging with the local community including local businesses, residents, industry and community organisations and government representatives and agencies in the Illawarra region.
- The Project will support the supply of steel products to the defence and renewables energy sectors which are currently imported to NSW from other parts of Australia and overseas.
- The Project is an estimated capital investment of $217 million and will create approximately 200 new jobs in steel manufacturing and up to 1,000 more in associated industries.
- It is anticipated that the proposed ASMAP project will also meet the *Responsible Steel* Standard attained by BlueScope in 2022.
- Maximum local participation by contractors and suppliers will continue throughout the life of the Project.
- The indicative timeframe for commissioning the Project is 2026 following a two-year construction period.
- The Project consultation is in its early stages and community members will be given the opportunity to be involved throughout the approval process. We will be conducting a range of studies to inform the Project, including environmental assessments, a social impact and economic assessment, and will continue to keep the community informed as we progress through this work.
- If you would like more information, please get in touch via our dedicated Project website at www.bluescopeillawarra.com

4. Engagement Matrix - sequence

Risk	Mitigation	Tools / Channels

Impacts of construction on the community: construction noise, dust and traffic impacts, poor worker behaviour or influx of works in the area.	Provide proactive updates to the community on upcoming construction work, its potential impacts and duration. Provide avenues for complaints and feedback. Seek to continually improve processes and show community where we have responded to their concerns.	**Recommended:** Project website, newsletters, targeted email, construction notices, complaints and feedback channels. **Optional:** Face to face visits, phone calls, information sessions, site tours and briefings.
Access to information: community members do not have access to adequate and accurate information on the Project to keep themselves informed on the progress and potential impacts to health, safety, and the local environment	Provide extensive, clear and easy-to-understand information across a range of readily accessible mediums.	**Recommended:** Project website, social media, fact sheets, media releases, newsletters, targeted mail and emails, information sessions, sponsorships and in person briefings. **Optional:** social media, site tours and workshops.
Environmental management: community members object to environmental aspects of the Project	Provide extensive information on the environmental aspects of the Project and proposed management systems / mitigation measures.	**Recommended:** Project website, fact sheets, targeted email, newsletters, information sessions, complaints and feedback channels. **Optional:** site tours and briefings.
Approval process and timing: Delays with approval timelines for the Project	Ensure that Project teams provide accurate forecast of the timing for Project development and construction and update affected parties if any variations occur.	**Recommended:** Project website, fact sheets, newsletters, targeted mail and emails, complaints and feedback channels **Optional:** in person briefings and social media.

5. General Communication

5.1 Media Strategy and Protocols

Local media will potentially have interest in the Project at different stages throughout the Project lifecycle. Media (including local and national interest) will be managed by BlueScope, and benefits will be highlighted through key messaging outlined in this SES.

5.2 Complaints Management and Recording

Complaints, feedback and enquiries can be made through an established dedicated phone number (to be commissioned during the 'Planning and approvals' phase of the Project), by email or through the website.

All public enquiries, feedback and complaints regarding the Project will be recorded and case managed in a central Customer Relations Management Database (CRMD). The CRMD will capture contact details and record information about the enquiry or complaint. Cases will be assigned in the CRMD to the staff responsible for responding and all responses, actions arising, and closure of enquiries and complaints will be recorded.

The CRMD will also be used to collect a contact database of community members and businesses that can be used for email and mail updates and direct communications to local schools or interest groups in the area. Response time for responding to enquiries and complaints are provided in Table 5.3.

Table 5.3 Complaint Response Timeframes

Type of complaint	Response timeframe
Complaints concerning safety of worker behaviour	Within 24 hours
Other complaints	Within 2 business days
Enquiries and feedback	Within 2 business days

6. Communication and Engagement Action Plan

BlueScope will continue to consult and engage with the local community and other stakeholders throughout the course of the Project, as outlined in Table 6.1.

International Association for Public Participation (IAP2) uses a spectrum of communications and engagement, ranging from low to high stakeholder impact on decision making (inform, consult, involve, collaborate, empower). This SES mostly sits in the 'inform' and 'consult' categories.

Appendix A of this SES explains the IAP2s Public Participation Spectrum in more detail.

A list of proposed collateral recommended for the planned activities above can be found in Appendix B of this SES.

Table 6.1 Communication and Engagement Action Plan

Project Phase	Objectives	Planned activities
Project feasibility *In progress – Q2 2023*	• Finalise site selection • Formalise engagement processes • Define relevant engagement processes • Inform community about the Project *Level of influence: inform*	• Update BlueScope Illawarra website with Project details, promote 1800 number and dedicated email contact • Gather phone numbers, addresses and emails • Introductory phone calls and promotion at industry events • Face-to-face and online briefings • Development of Project overview flyer and briefing pack *Targets all stakeholder groups*
Planning and approvals *In progress – Q2 2023*	• Provide ongoing communications and engagement • Proactively seek feedback from the community to inform the Project	• Face to face visits • Phone calls • Updates on the Project website • Information sessions and site tours

	construction activities / considerations *Level of influence: inform, consult and engage*	*Targets all stakeholder groups*
Construction *Staged from 2023 to 2025*	• Proactively keep community informed about the Project construction activities • Actively address concerns by responding to complaints and enquiries in a timely manner • Using community feedback, seek to minimise or avoid impacts • Maximise the opportunities for community members and businesses within the Project *Level of influence: inform and consult*	• Face to face visits • Phone calls • Complaints management processes • Newsletters • Updates on the Project website • Site open day / tour • Develop community partnerships *Targets all stakeholders*
Commissioning and operations *Staged from 2023 to 2026*	• Intensive engagement as ASMAP commences operation • Build ongoing trust and confidence with the community *Level of influence: inform, consult and involve*	• Face to face visits • Site tours and briefings • Complaints management processes • Media releases • Updates on the Project website *Targets all stakeholders*

7. Version Control

Version Control	Name and Position	Date	Signature
Author	Amber Waldron Manager Community and Government Relations	1 September 2022	
Endorsed by			
Approved by			

Appendix A: IAP2's Public Participation Spectrum

The IAP2 Federation has developed the Spectrum to help groups define the public's role in any public participation process. The IAP2 Spectrum is quickly becoming an international standard.

Table A.1 IAP2's Public Participation Spectrum

	Inform	Consult	Involve	Collaborate	Empower
Public Participation Goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and / or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
Promise to the Public	We will keep you informed	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Appendix B: Collateral

Table B.1 provides a list of recommended collateral that can be used to facilitate stakeholder and community engagement, to meet the needs of a diverse audience throughout the life of the Project.

Table B.1 Recommended Collateral

Collateral type	Recommended collateral
Letters	Letter of introduction Letters to impacted stakeholders (immediate neighbours and sensitive receptors) Invitations to community open days / site tours
Newsletters	Introductory newsletter Regular newsletter updates about the Project development and construction
Media releases	Major Project milestones
Emails (Email database to be gathered during community engagement)	Regular targeted emails outlining upcoming construction impacts E-copies of newsletter and invites
Fact sheets / posters	Generic Plate Mill and Wind Tower Manufacturing Facility fact sheet Project overview including key details i.e. construction activity timeframes, key dates etc. Project environmental impacts and management techniques Project benefits Project construction Approval process (NSW Government) FAQs
Website	Project documentation Project overview Interactive map News stories and videos of the Project in the community Construction updates Fact sheets Work with us Contact details Feedback and complaint contact details
Social media – LinkedIn, Facebook, YouTube, Twitter	Updates Good news stories Community photos
Podcasts	Project overview Process and product overview Meet and greet with Plate Mill employees
Workplace (Facebook for workplace)	Project overview Project updates Key contact details Internal Project communications

APPENDIX C ENGAGEMENT MATERIALS

ASMAP STAKEHOLDER ENGAGEMENT – RECORD OF PROJECT BRIEFINGS

RE: meeting

RD ○ **Richard Davis <RichardDavis@illawarraitec.edu.au>** Wednesday, 6 April 2022 at 1:42 pm

To: ○ Graeme Gulloch; ○ steventurner; ○ William Henry (William.Henry@iac.org.au); **Cc:** ○ michael.reay; ○ Amber Waldron

Thanks Graeme,

See you tomorrow

Regards

Richard Davis
Aboriginal Business Advisory Initiative
The Illawarra >>ITeC<< Ltd
Ph: 02 4223 3100
Fax: 02 4223 3199
Mobile: 0409820207
Email: RichardDavis@illawarraitec.edu.au

I would like to acknowledge the traditional owners of our land, and pay my respects to elders past and present

Join The Illawarra ITeC on Facebook for all the latest updates on business, training and events

From: Graeme Gulloch <graeme@waples.com.au>
Sent: Wednesday, 6 April 2022 11:37 AM
To: Richard Davis <RichardDavis@illawarraitec.edu.au>; steventurner <steventurner@colonysix.com>; William Henry (William.Henry@iac.org.au) <William.Henry@iac.org.au>
Cc: michael.reay <michael.reay@bluescope.com>; Amber Waldron <amber.waldron@bluescopesteel.com>
Subject: Re: meeting

Hi Richard
Confirming that Michael Reay will be that and also joining will be Amber Waldron.
Cheers
Graeme

Stakeholder: Illawarra Aboriginal Corporation

RD ○ **Richard Davis <RichardDavis@illawarraitec.edu.au>** Friday, 12 November 2021 at 2:35 pm

To: ○ 'William Henry'; ○ 'Reay, Michael R'; ○ Julian O'Brien

Thanks William,

Regards

Richard Davis
Aboriginal Enterprise Development Officer
The Illawarra >>ITeC<< Ltd
Ph: 02 4223 3100
Fax: 02 4223 3199
Mobile: 0409820207
Email: RichardDavis@illawarraitec.edu.au

I would like to acknowledge the traditional owners of our land, and pay my respects to elders past and present

Join The Illawarra ITeC on Facebook for all the latest updates on business, training and events

-----Original Appointment-----
From: William Henry <William.Henry@iac.org.au>
Sent: Friday, 12 November 2021 2:35 PM
To: Richard Davis; 'Reay, Michael R'; Julian O'Brien
Subject: Bluescope blast furnace project
When: Friday, 26 November 2021 10:00 AM-12:00 PM (UTC+10:00) Canberra, Melbourne, Sydney.
Where: 22 Kenny Street, Wollongong NSW

Stakeholder: Illawarra Aboriginal Corporation

RD ○ **Richard Davis <RichardDavis@illawarraitec.edu.au>** Friday, 12 November 2021 at 2:21 pm

To: ○ 'Reay, Michael R'; ○ Julian O'Brien; **Cc:** ○ William Henry

Hi Michael,

See you' s on 26th November 10:00 at Illawarra Aboriginal Community Centre, Kenny St Wollongong.

Regards

Richard Davis
Aboriginal Enterprise Development Officer
The Illawarra >>ITeC<< Ltd
Ph: 02 4223 3100
Fax: 02 4223 3199
Mobile: 0409820207
Email: RichardDavis@illawarraitec.edu.au

I would like to acknowledge the traditional owners of our land, and pay my respects to elders past and present

Join The Illawarra ITeC on Facebook for all the latest updates on business, training and events

---

From: Reay, Michael R <Michael.Reay@bluescope.com>
Sent: Friday, 12 November 2021 2:18 PM
To: Richard Davis <RichardDavis@illawarraitec.edu.au>; Julian O'Brien <jobrien@southbreakmedia.group>
Cc: William Henry <William.Henry@iac.org.au>
Subject: Re: Bluescope blast furnace project

Thanks Richard,

Dave's just come back and confirmed, so all ok.

Let's lock it in.

Regards,
Michael

Stakeholder: Illawarra Aboriginal Corporation

Will we see you at the i3net Industry Breakfast: BlueScope Townhall Meeting?

BP ○ **Bianca Perry <i3net@i3net.com.au>** Monday, 4 April 2022 at 7:17 am

To: Bianca Perry

Good morning,

I hope you are going well.

On behalf of the i3net Board, you are invited to a special i3net Industry Breakfast Event.

Will we see you there?

BlueScope Townhall Meeting:No.6 Blast Furnace Reline and other opportunities in the Illawarra.

- IN-PERSON EVENT.
- Thursday 14 April, 7.30am for an 8.00am start. 10.30am close.
- City Beach Function Centre. 1 Marine Drive, Wollongong.
- Attend to meet and hear from Senior BlueScope Managers, benefit from excellent networking opportunities and enjoy a hot breakfast. You are also invited to submit your questions for the panel.
- This event is exclusive for i3net members and partners only.
- Only $80.00+GST.

And with the event being so close to the Easter break, we will be making it an egg-stra special event for you all. Every Member and Partner who attends will receive a generous (and delicious) treat. You wont want to miss this special event.

Further details are below.

You can click here to register: https://www.trybooking.com/BYPMR

Looking forward to seeing you there!

Best regards,

Bianca.

Bianca Perry
Chief Executive Officer I i3net
PO Box 1300 I Wollongong NSW 2500
M: 0401 030 023 I E: i3net@i3net.com.au I W: www.i3net.com.au

Stakeholder: i3net

Meet and Greet and Dept. of Regional NSW / David Scott

Tuesday, 24 May 2022 from 1:00 pm to 1:45 pm
45 minutes

None

Meeting Details Meeting Insights (2)

UPDATE (23/5) – this meeting will now be held online – refer to the bottom of the invite for a link to the Teams meeting.

Thanks,
Amber

Hi all,

Thank you for confirming your availability for this meeting.

We look forward to meeting you at our Port Kembla Office site (Altair Building). A map to the Altair Building is provided below – the yellow line represents the route to follow once you exit Five Islands Road. Please park in the designated parking bay (circled in red) and walk to the front entrance using the pathway down the side of the building. The reception is directly to the left as you enter. I will meet you there at 1pm. If you have any trouble finding the building, please give me a call – 0400 640 793.

Bec, if I can kindly request that you share the meeting with Nigel, that would be much appreciated.

If you have any questions, please don't hesitate to get in touch.

Thanks,
Amber

Stakeholder: Department of Regional NSW

EPA Senior Leadership Site Visit@10am

Tuesday, 31 May 2022 from 9:45 am to 12:30 pm
2 hours, 45 minutes

You accepted Edit RSVP

Meet at Visitors Centre

None

Meeting Details

Hi All

Just putting this in your calendar.
Please accept or decline as your availability allows.

Thanks
Nat

Stakeholder: NSW EPA

DPE site visit

Wednesday, 1 June 2022 from 9:30 am to 1:00 pm
3 hours, 30 minutes

Visitors Centre

Join Teams Meeting

None

Meeting Details Meeting Insights (1)

Hi Michael and Craig,

As discussed, locking in this time for the Dept. of Planning and Environment site visit to PKSW, commencing at 10am – 1pm. At this stage the plan is to hold a 30 min presentation at the VC and then jump on the bus to visit the following sites/proposed sites:

- Hydrogen electrolyser and refuelling station
- Plate Mill
- 6BF (coinciding with Clean Up Australia Day activities and a sausage sizzle).

We expect approx. 9 DPE reps to be in attendance and up to 10 BSL employees.

Thanks,
Amber

Stakeholder: NSW Department of Planning and Environment

Stakeholder: University of Wollongong, Business Illawarra, Illawarra business representatives and industry groups

NEWSLETTERS > BUSINESS LIST

ILLAWARRA MERCURY

By Connor Pearce
Updated June 24 2022 - 5:02pm, first published 4:30pm

0 Comments

Steelworks: L-R Milco Stojanoski, BlueScope manager slabmaking, David Scott, general manager, manufacturing and NSW Minister for Metropolitan Roads Natalie Ward. Picture: Connor Pearce

Stakeholder: NSW Minister for Metropolitan Roads, Natalie Ward

Meeting: Jo Haylen MP, Shadow Minister for Transport

Monday, 27 June 2022 from 2:00 pm to 4:00 pm
2 hours

You accepted Edit RSVP

Business Illawarra Wollongong MeetingRoom1

None

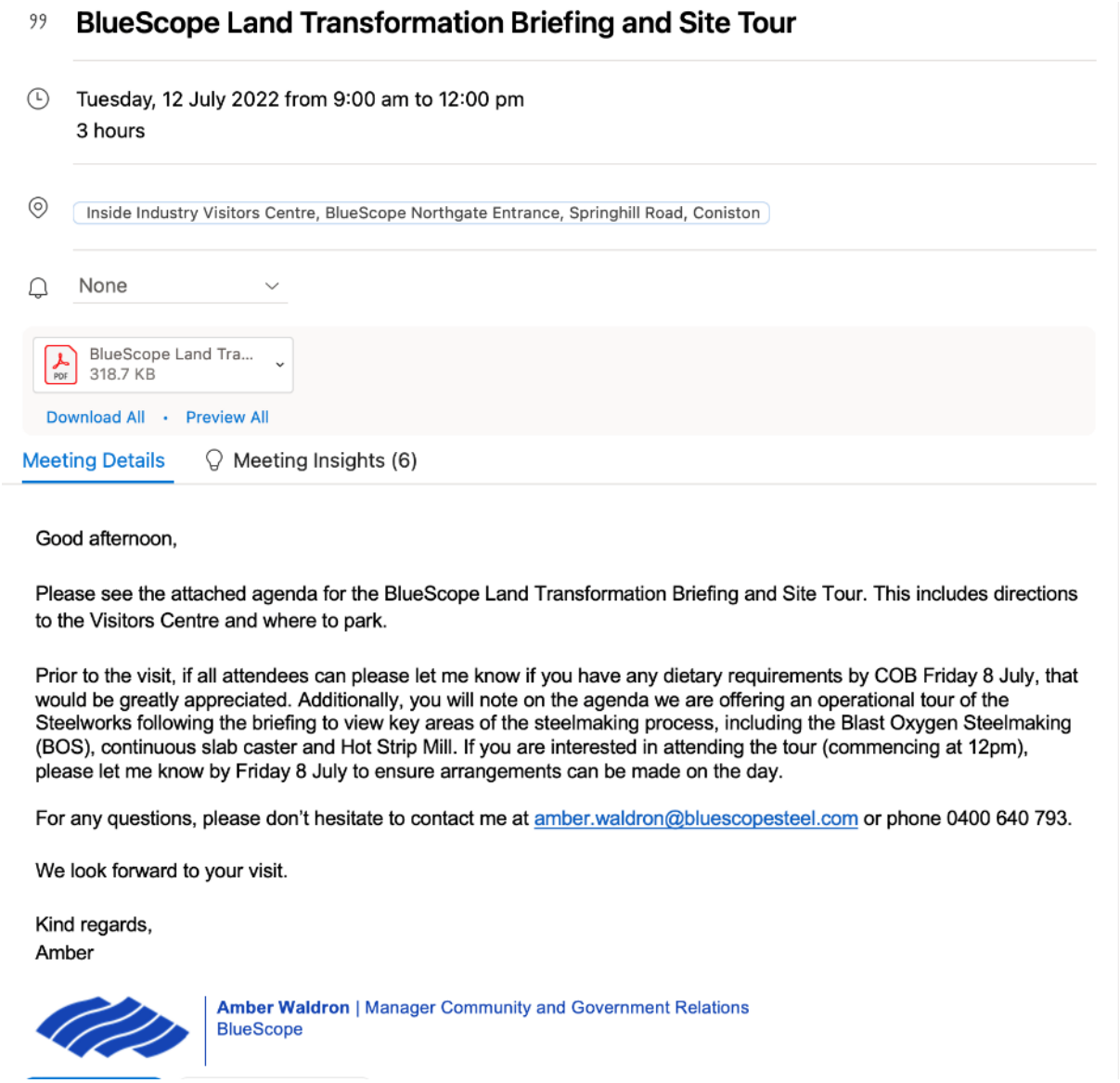
Meeting Details

Jo Haylen MP, Shadow Minister for Transport, has accepted our request for a meeting with a view to informing opposition policy heading into the election March next year.
This is an important opportunity, and so would like to invite yourselves, or another representative, to a meeting with Ms Haylen together with Paul Scully MP (Shadow Minister for Planning and Member for Wollongong).

Details as follows:

Date: Monday, 27 June
Time: 2pm
Location: Business Illawarra Offices, Level 5, 6-8 Regent Street, Wollongong

Stakeholder: NSW Shadow Minister for Transport, Jo Haylen MP



BlueScope Land Transformation Briefing and Site Tour

Tuesday, 12 July 2022 from 9:00 am to 12:00 pm
3 hours

Inside Industry Visitors Centre, BlueScope Northgate Entrance, Springhill Road, Coniston

None

BlueScope Land Tra...
318.7 KB

Download All • Preview All

Meeting Details Meeting Insights (6)

Good afternoon,

Please see the attached agenda for the BlueScope Land Transformation Briefing and Site Tour. This includes directions to the Visitors Centre and where to park.

Prior to the visit, if all attendees can please let me know if you have any dietary requirements by COB Friday 8 July, that would be greatly appreciated. Additionally, you will note on the agenda we are offering an operational tour of the Steelworks following the briefing to view key areas of the steelmaking process, including the Blast Oxygen Steelmaking (BOS), continuous slab caster and Hot Strip Mill. If you are interested in attending the tour (commencing at 12pm), please let me know by Friday 8 July to ensure arrangements can be made on the day.

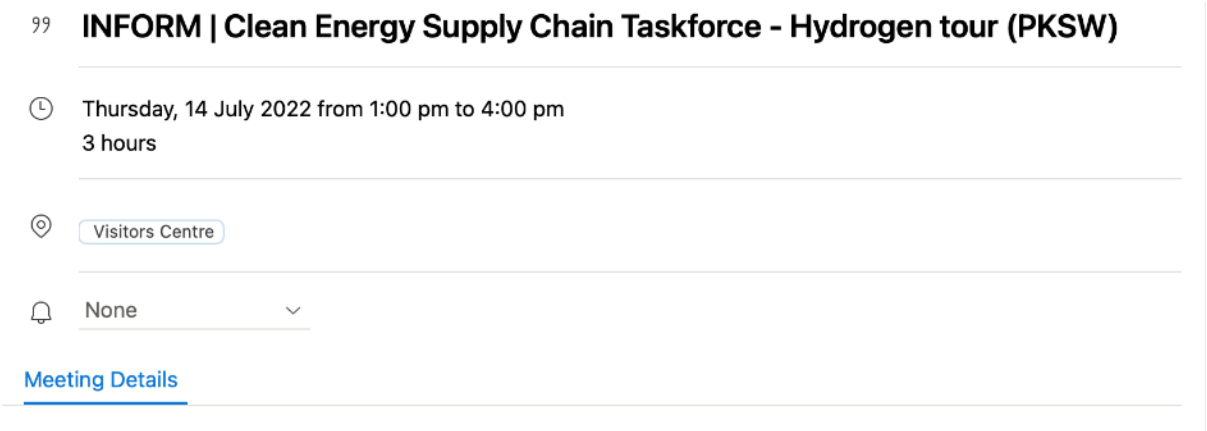
For any questions, please don't hesitate to contact me at amber.waldron@bluescopesteel.com or phone 0400 640 793.

We look forward to your visit.

Kind regards,
Amber

Amber Waldron | Manager Community and Government Relations
BlueScope

Stakeholder: Greater Cities Commissioners (Executive Directors); Business Illawarra; Wollongong City Council and Department of Regional NSW



INFORM | Clean Energy Supply Chain Taskforce - Hydrogen tour (PKSW)

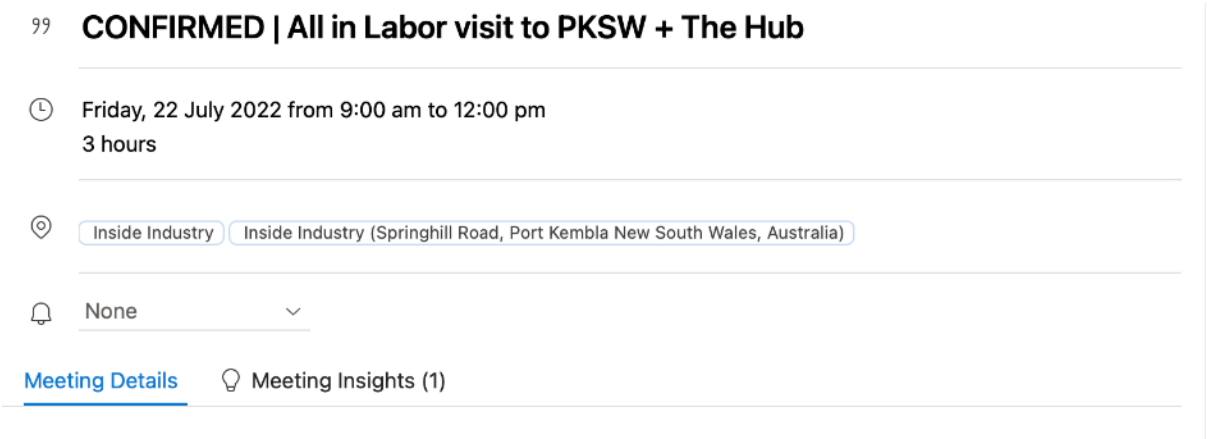
Thursday, 14 July 2022 from 1:00 pm to 4:00 pm
3 hours

Visitors Centre

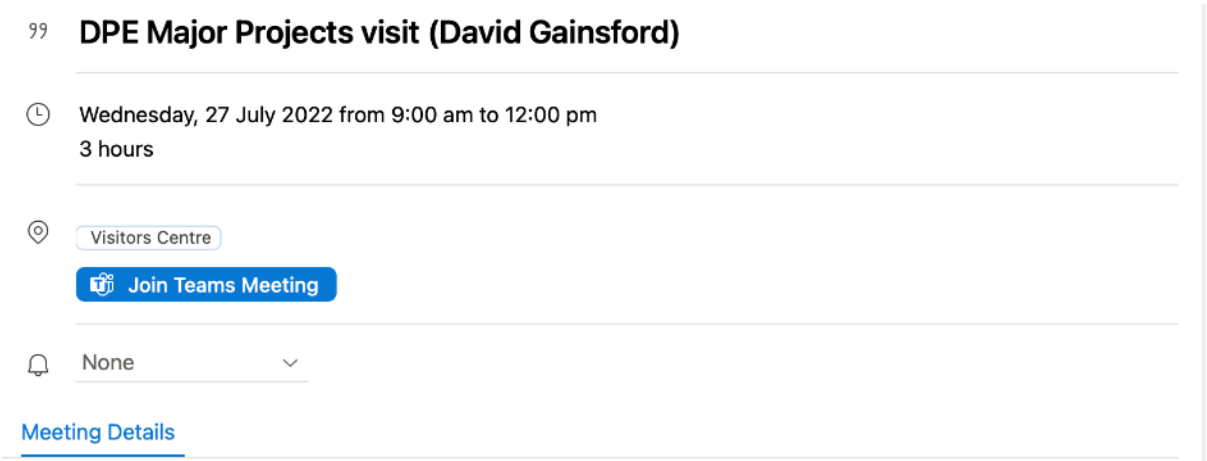
None

Meeting Details

Stakeholder: NSW Government Clean Energy Taskforce



Stakeholder: State and Federal Labor MPs: Member for Whitlam, Stephen Jones MP, Member for Cunningham, Alison Byrnes, Member for Gilmore, Fiona Phillips MP, Member for Wollongong, Paul Scully MP, Member for Keira, Ryan Park MP and Member for Shellharbour, Anna Watson MP



Stakeholder: NSW Department of Planning and Environment (Development Assessment team)

Transport for NSW Freight Executives - Visit to BlueScope

Wednesday, 27 July 2022 from 2:30 pm to 5:00 pm
2 hours, 30 minutes

You accepted Edit RSVP

Inside Industry and BlueScope Site Tour

None

Meeting Details

Updated attendees below

Time	Location	Agenda
12.30 – 2.30pm	**TfNSW arrive at Inside Industry**	Lunch on arrival **RDA Illawarra Briefing during site tour:** • Port of Port Kembla, new Energy Projects (AIE, AIP), Hydrogen, New Energy opportunities and Infrastructure
2:30 – 3.30pm	**BlueScope Briefing**	**BlueScope strategic** overview (similar to i3net presentation) Discussion
3.30pm to 5.00pm	**Site tour – BlueScope**	**BlueScope Supply Chain** challenges and opportunities for improvement (handout on the bus) Site tour

Stakeholder: RDA Illawarra and Transport for NSW (Executive Directors)

Confirmed | BlueScope & ILALC meeting

Thursday, 28 July 2022 from 1:00 pm to 2:00 pm
1 hour

Altair Building, Five Islands Road, Port Kembla

Join Teams Meeting

None

Meeting Details

Stakeholder: Illawarra Local Aboriginal Land Council

BlueScope- Regional NSW Aboriginal Partnerships

Tuesday, 2 August 2022 from 9:30 am to 10:20 am
50 minutes

You accepted Edit RSVP

Ground Cafe

None

Meeting Details | Meeting Insights (3)

Hi Scott
We look forward to meeting you.
This café is around the corner from your office – hope that suits!
Talk soon
Anna

Stakeholder: NSW Department of Regional NSW

Shadow NSW Ministers (Anoulack Chanthivong & Jihad Dibb)

Thursday, 4 August 2022 from 9:00 am to 11:00 am
2 hours

You accepted Edit RSVP

Visitors Centre

None

Meeting Details | Meeting Insights (9)

Stakeholder: NSW Shadow Minister for Finance, and Shadow Minister for Industry and Trade Annoulack Chanthivong MP; and NSW Shadow Minister for Emergency Services and Shadow Minister for Energy and Climate Change, Jihad Dibb MP

WCC/i3net senior leader round-table

Friday, 5 August 2022 from 9:30 am to 12:30 pm
3 hours

Wollongong City Council | Level 9, Function Room

Join Teams Meeting

15 minutes before

Meeting Details | Meeting Insights (13)

Hi Michael, Andy and Justin,

Please see the below invitation we received from i3net, in collaboration with Business Illawarra and Wollongong City Council for a skills and capability round table discussion.
If you can all confirm your attendance by RSVP'ing to the calendar invite, that would be greatly appreciated. I'll then RSVP to Bianca on your behalf.

Many thanks,
Amber

Good morning,

I hope you are all going well and had a great weekend.

On behalf of i3net, Business Illawarra and Wollongong City Council you are invited to participate in an important senior leader round-table.

Please see the details below for this important and helpful session.

Stakeholder: I3net; Wollongong City Council; Business Illawarra; Department of Regional NSW

BlueScope / Transport for NSW briefing

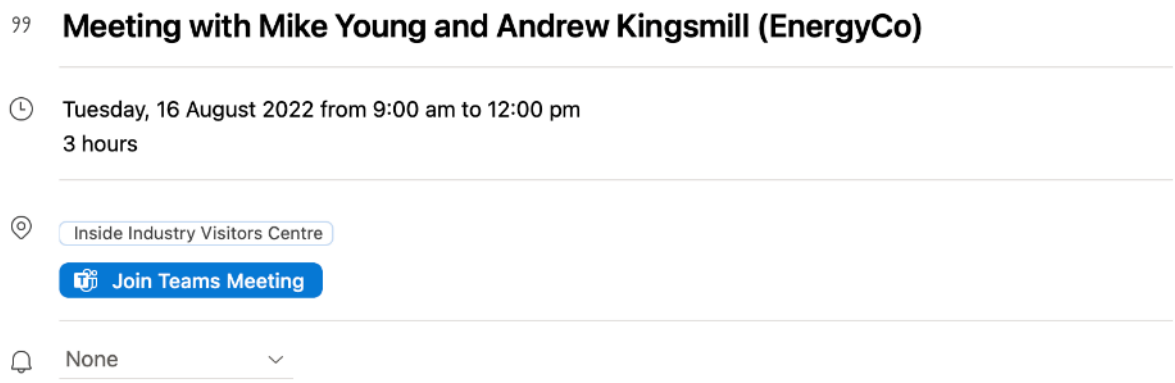
Friday, 12 August 2022 from 9:00 am to 10:00 am
1 hour

Join Teams Meeting

15 minutes before

Meeting Details | Meeting Insights (7)

Stakeholder: Transport for NSW



Stakeholder: EnergyCo

Stakeholder: Senator for NSW the Hon, Tim Ayres Assistant Minister for Manufacturing and Assistant Minister for Trade

BlueScope

EPA and BSL Environment Department Liaison Meeting Minutes

This Meeting:	12th July 2022	Venue:	Teams Meeting	
EPA	F.Cowan, G. Newman, C.Kelly		Apologies	
BlueScope	S.Roberts, S.May, J.Egan, C.Sammut, N.Porteous,R.Cunningham, A.Rojas,		Apologies	S Cole

1. **Safety**	

BlueScope Induction and Permit Validity

EPA Officer	Passport No	Proxy Card No	Prox Card Expiry	Illawarra Site Induction Expiry
G Newman	821171	41645 31015928-1	15 July 2023	15 July 2023
C Kelly		61179 33101082386-1	9 March 2024	9 March 2024
J Boyle		59501 33101074579-1	10 Nov 2023	10 Nov 2023
M Fuller	18139	28889	9 June 2022	9 June 2022
F. Cowan			April 2025	April 2025

BlueScope

EPA and BSL Environment Department Liaison Meeting Minutes

This Meeting:	24th May 2022	Venue:	Teams Meeting	
EPA	F.Cowan, G.Newman, C.Kelly		Apologies	
BlueScope	C.Sammut, S.Roberts, A.Rojas, S.May, S.Roberts, S.Cole		Apologies	

1. **Safety**	Nil

BlueScope Induction and Permit Validity

EPA Officer	Passport No	Proxy Card No	Prox Card Expiry	Illawarra Site Induction Expiry
G Newman	821171	41645 31015928-1	15 July 2023	15 July 2023
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M Fuller	18139	28889	9 June 2022	9 June 2022
F. Cowan			April 2025	April 2025

BlueScope

EPA and BSL Environment Department Liaison Meeting Minutes

This Meeting:	5th April 2022	Venue:	Teams Meeting	
EPA	G Newman, C Kelly		Apologies	
BlueScope	S May, S Cole, O Fanke, A Rojas, N Porteous, J Egan.		Apologies	C. Sammut

1. **Safety**	Status of COVID at PKSW. New proxy card scanners at all gates.

BlueScope Induction and Permit Validity

EPA Officer	Passport No	Proxy Card No	Prox Card Expiry	Illawarra Site Induction Expiry
G Newman	821171	41645 31015928-1	15 July 2023	15 July 2023
C Kelly		61179 33101082386-1	9 March 2024	9 March 2024
J Boyle		59501 33101074579-1	10 Nov 2023	10 Nov 2023
M Fuller	18139	28889	9 June 2022	9 June 2022
F. Cowan	To be inducted			

BlueScope

EPA and BSL Environment Department Liaison Meeting Agenda

This Meeting:	23rd August 2022	Venue:	Teams Meeting	
EPA	Greg Newman, Chris Kelly		Apologies	F.Cowan
BlueScope	C.Sammut, N.Porteous, S.Cole, S. Roberts, S. May, A.Rojas		Apologies	

1. **Safety**	Truck and vehicle incident – Kembla Road

BlueScope Induction and Permit Validity

EPA Officer	Passport No	Proxy Card No	Prox Card Expiry	Illawarra Site Induction Expiry
G Newman	821171	41645 31015928-1	15 July 2023	15 July 2023
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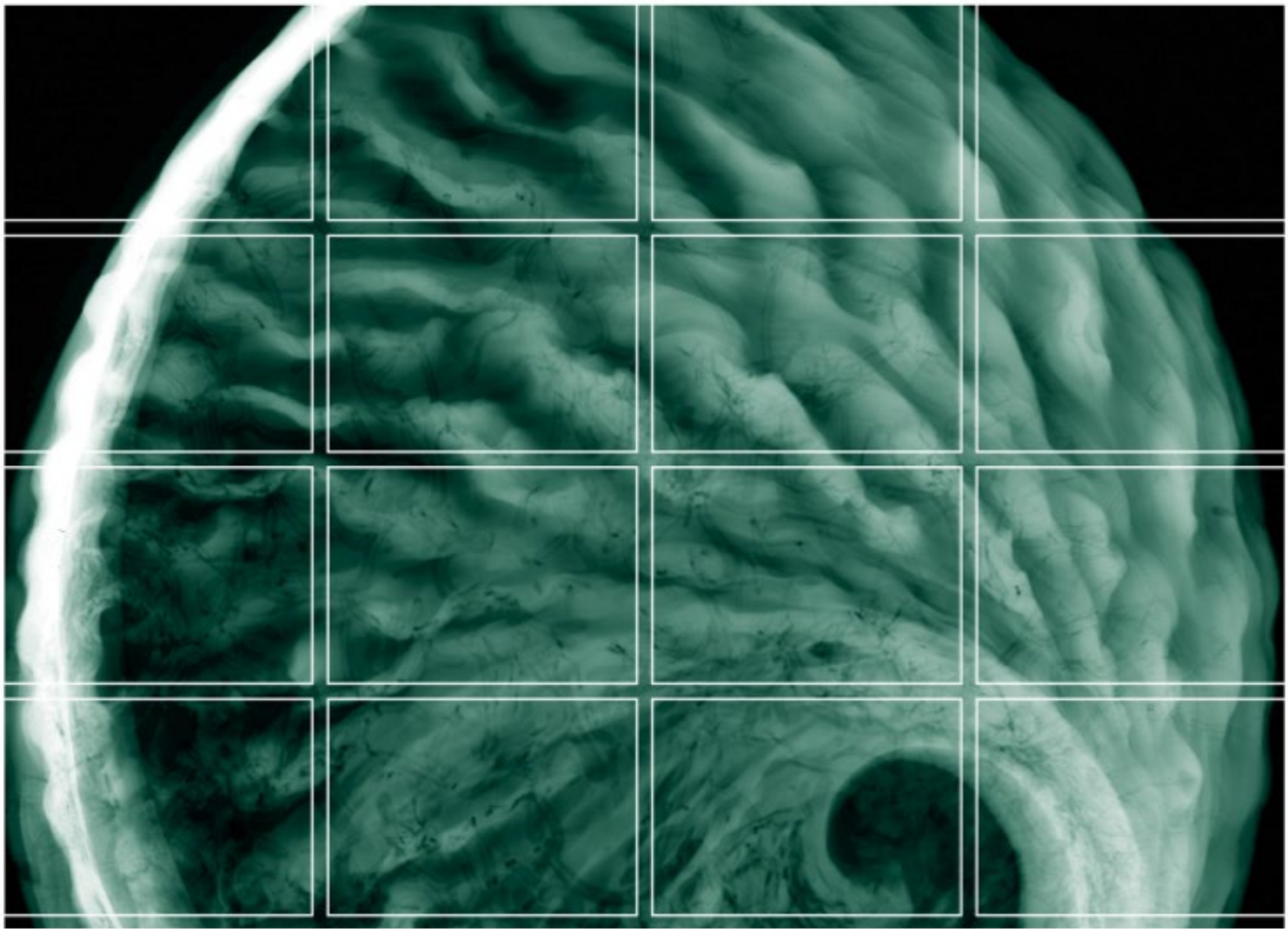
J Boyle		59501 33101074579-1	10 Nov 2023	10 Nov 2023
M Fuller	18139	28889	9 June 2022	9 June 2022
F. Cowan			April 2025	April 2025

Stakeholder: NSW EPA

APPENDIX D BDAR WAIVER



BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project

BDAR Waiver Request

31 October 2022

Project No.: 0650342

The business of sustainability

ERM

Document details	
Document title	BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Document subtitle	BDAR Waiver Request
Project No.	0650342
Date	31 October 2022
Version	1.0
Author	Lorena Boyle, Matt Davis
Client Name	BlueScope Steel Limited

Document history

				ERM approval to issue		
Version	Revision	Author	Reviewed by	Name	Date	Comments
Draft	0.0	Lorena Boyle	Matt Davis	Danyil Skora	26/09/2022	Draft for client review
Final	1.0	Lorena Boyle	Matt Davis	Danyil Skora	26/10/2022	Final

Signature Page

31 October 2022

BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project

BDAR Waiver Request

Matt Davis
Principal Ecologist

Danyil Skora
Project Manager

Environmental Resources Management Australia Pty Ltd
Level 15 309 Kent Street
Sydney NSW 2000

CONTENTS

List of Tables

List of Figures

Acronyms and Abbreviations

ASL	Above sea level
ASMAP	Advanced Steel Manufacturing Precinct
BC Act	Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
BlueScope	BlueScope Steel (AIS) Pty Ltd
BOS	Basic Oxygen Steelmaking
CBD	Central business district
DA	Development Application
DPE	NSW Department of Planning and Environment
EIS	Environmental Impact Statement
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
ESG	Environmental, Social, and Governance
Ha	hectares
HV	High Voltage
kV	kilovolt
LGA	Local government area
LV	Low Voltage
NSW	New South Wales
PCT	Plant community type

PKSW	Port Kembla Steelworks
Project Area	BlueScope's Port Kembla site known as the Port Kembla Steelworks contained within Lot 1 of DP 606434
Project Site	Development footprint of the Advanced Steel Manufacturing Precinct
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
TEC	Threatened ecological community
The Project	The Advanced Steel Manufacturing Precinct (ASMAP) Project

1. INTRODUCTION

BlueScope Steel (AIS) Pty Ltd (BlueScope) currently operates an integrated steelworks at its Port Kembla site known as the Port Kembla Steelworks (PKSW). The PKSW is located at Port Kembla, New South Wales (NSW), on approximately 760 hectares (ha) of industrial land. PKSW is the largest steel production facility in Australia specialising in the production of flat steel products, including slab, hot rolled coil, cold rolled coil, plate, and coated and painted steel products.

The Proponent, BlueScope, proposes to upgrade certain existing steel manufacturing facilities located at the PKSW to service new and growing markets in the renewables and defence sectors. BlueScope intends to modernise a part of its existing steel manufacturing facilities within the existing PKSW. The scope of works included in this scoping report is collectively referred to as the Advanced Steel Manufacturing Precinct (ASMAP) Project. The Project is consistent with PKSW's *ResponsibleSteel* certification which drives BlueScope to be a leader in steel sector sustainability by demonstrating responsible sourcing and production practices. *Responsible Steel* is the global steel industry's multi-stakeholder sustainability standard and certification program, that ensures the steel used by customers, stakeholders and consumers has been sourced and produced responsibly. BlueScope's performance was thoroughly and rigorously assessed against the 12 principles of the *Responsible Steel* Standard, which encompasses a range of environmental, social and governance (ESG) criteria. The ASMAP Project (the Project) aims to enhance the supply of Australian steel by upgrading the existing plate steel production facility and to install a new wind tower manufacturing facility. It is anticipated that the proposed ASMAP project will also meet the *Responsible Steel* Standard attained by BlueScope.

The Proponent is seeking State Significant Development (SSD) consent under Part 4, Division 4.7 of the *Environmental Planning & Assessment Act 1979* (EP&A Act) for the Project.

The Proponent has engaged Environmental Resources Management Australia Pty Ltd (ERM) to prepare a Scoping Report for the Project, as a first step in the SSD consent process. The Scoping Report supports an application to the Secretary of the NSW Department of Planning and Environment (DPE) for Secretary's Environmental Assessment Requirements (SEARs). The SEARs will guide the preparation of an Environmental Impact Statement (EIS) for the Project to accompany the Project Development Application (DA).

A desktop and site assessment of the Project Site (development footprint of the Advanced Steel Manufacturing Precinct) has determined that there are limited biodiversity values that have potential to be impacted by the proposal. The Biodiversity Values Map does not identify the land as having high biodiversity value. It is therefore concluded that a Biodiversity Development Assessment Report (BDAR) is not required and it is requested that this requirement be waived.

This request is also based on the following assessment against the relevant biodiversity values contained within the *Biodiversity Conservation Act 2016* (Sections 1.5 and 6.3) and the *Biodiversity Conservation Regulation 2017* (Clauses 1.4 and 6.1) (refer to Table 3-1).

2. PROJECT DETAILS

The Project Site is located within the broader BlueScope's Port Kembla Steelworks (PKSW; the Project Area) located at Five Islands Road, Port Kembla 2505, NSW. It is situated approximately 8 km south of Wollongong central business district (CBD) and is part of the Illawara Region of NSW. The Project Area is contained within Lot 1 of DP 606434 and is situated wholly within the Wollongong City Council Local Government Area (LGA). The Project Area is zoned in its entirety as *IN3 Heavy Industrial* under provisions of the *Transport and Infrastructure SEPP 2021*. The elevation across the Project Area is relatively consistent, ranging from 5 m to 12 m above sea level (ASL).

BlueScope operates PKSW, an integrated steelworks factory, at its Port Kembla site (Figure 2.1). Iron produced in two blast furnaces is converted to steel in the Basic Oxygen Steelmaking (BOS) furnaces and then continuously cast into slabs. The slabs are either further processed at the site via the Hot Strip Mill or Plate Mill or loaded onto ships for export or transfer to BlueScope's facility at Westernport.

The Project involves the construction and installation of a new Walking Beam Furnace, a new Wind Tower Manufacturing Facility and other associated upgrades within the existing BlueScope's PKSW facility at Port Kembla, NSW.

The Project will help build Australia's sovereign manufacturing capability and assist BlueScope in making a substantive investment to make essential components for the clean energy transition - wind, solar and pumped hydro - and the defence sector.

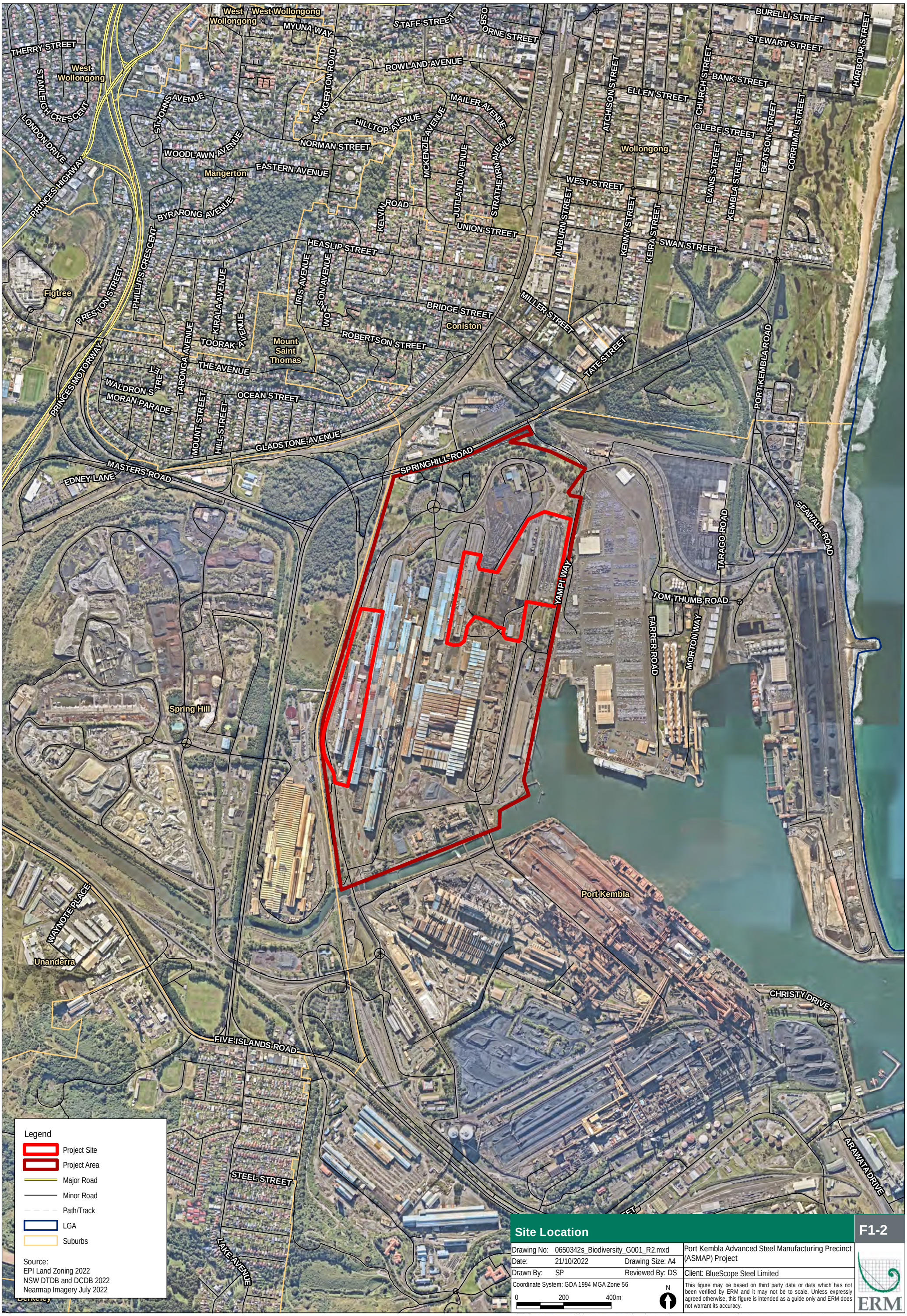
The Project is expected to cost A$217 million in capital expenditure. BlueScope has been granted approval for $55.4 million in part funding from the federal government for this project (*subject to finalisation of a funding agreement*).

Table 2-1 below details the BDAR waiver request information required for the Project.

Table 2-1 BDAR waiver request information

Requested Information	
Proponent Name	BlueScope Steel Limited
Project Name	BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Name and Ecological qualifications of person completing Table 3-1	Matt Davis BAM Accredited Assessor (BAAS18090) Bachelor of Science (Ecology and Conservation Biology), 2007 Master of Environment (Conservation Biology)
Site street address, lot and DP, local government area	The Project Site is located at Five Islands Road, Port Kembla 2505, NSW, and consists of the following legal lot description: Lot 1 of DP 606434 It is located within the Wollongong City Council Local Government Area (LGA)
Location map showing the development site in the context of surrounding area and landscape features	Refer to Figure 2.1.
Site Map	Refer to Figure 2.1.
Project Description	The Project involves the construction and installation of a new Walking Beam Furnace, a new Wind Tower Manufacturing Facility and other associated upgrades within the existing BlueScope's PKSW facility at Port Kembla, NSW. The Project has a total capital investment value of approximately $217 million. Present day operations at PKSW involves production of crude steel from liquid iron from the Basic Oxygen Steelmaking (BOS) plant. The liquid steel is case into slabs. The solid slabs are rolled into thinner strip and plate using reheat furnaces and powerful rolling mills; this constitutes the existing Plate Mill operations at PKSW. With the proposed Project, the Plate Mill operations will remain the same as existing, (i.e. reheating of steel slab, rolling through the two (2) Stand Plate Mill, plate cooling, plate processing and despatch of plate). The Project proposes to increase the throughput from 500,000 plate tonnes to 600,000 plate tonnes per year. The specific works associated with the Project include: ■ Installation of a new walking beam furnace, replacing two pusher furnaces servicing the Plate Mill with one walking beam furnace; ■ Upgrading the existing descaling system by provide higher capacity pumps. The upgrade will convert direct on line starting motors to variable speed drive controlled motors. Removal of scale from the plate surface is done during rolling by spraying high pressure water onto the plates; ■ Upgrading the electrical infrastructure, including the construction of a new 11 kilovolt (kV) system dedicated to the Plate Mill, various new low voltage (LV) distribution boards and switchrooms to house them, and upgrades to some other existing high voltage (HV) and LV infrastructure; ■ Upgrading the Heavy Plate Cutting Facility by replacing existing plate cutters and upgrading to improve throughput and quality; and

	■ Installation of a New Wind Tower Manufacturing Facility. This facility will be located within an existing facility (KW building) and an additional ancillary building in close proximity it. Additional smaller buildings located adjacent to the main building will be provided for storage and to house ancillary equipment e.g. welding consumables. The works will include the installation of additional overhead cranes, realignment of internal rail lines. The existing structure will be cladded to enclose the exposed end of the KW building.
Proposed Site Plan	Refer to Figure 2.2


West Wollongong
West Wollongong
MYUNA WAY
STAFF STREET
ORNE STREET
BURELLI STREET
STEWART STREET
HARBOUR STREET
THERRY STREET
West Wollongong
STANLEIGH CRESCENT
LONDON DRIVE
PRINCES HIGHWAY
ST JOHNS AVENUE
MANGERTON ROAD
ROWLAND AVENUE
MAILER AVENUE
HILLTOP AVENUE
MCKENZIE AVENUE
ATCHISON STREET
CHURCH STREET
BANK STREET
ELLEN STREET
HARBOUR STREET
GLEBE STREET
BEATSON STREET
CORRIMAL STREET
EVANS STREET
KEMBLA STREET
Wollongong
WOODLAWN AVENUE
NORMAN STREET
Mangerton
EASTERN AVENUE
JUTLAND AVENUE
STRATHEARN AVENUE
WEST STREET
AUBURN STREET
KENNY STREET
KEIRA STREET
SWAN STREET
BYRARONG AVENUE
KELVIN ROAD
UNION STREET
HEASLIP STREET
PHILLIPS CRESCENT
IRIS AVENUE
WILSON AVENUE
Figtree
PRESTON STREET
KIRALA AVENUE
BRIDGE STREET
MILLER STREET
Coniston
TOORAK AVENUE
ROBERTSON STREET
TARONGA AVENUE
Mount Saint Thomas
THE AVENUE
TATE STREET
PORT KEMBLA ROAD
PRINCES MOTORWAY
WALDRON STREET
MORAN PARADE
OCEAN STREET
MOUNT STREET
HILL STREET
GLADSTONE AVENUE
SPRINGHILL ROAD
MASTERS ROAD
EDNEY LANE
SEAWALL ROAD
TARAGO ROAD
YAMPI WAY
TOM THUMB ROAD
FARRER ROAD
MORTON WAY
Spring Hill
Port Kembla
WAYNOTE PLACE
Unanderra
CHRISTY DRIVE
FIVE ISLANDS ROAD
ARAWATA DRIVE
STEEL STREET
LAKE AVENUE
Berkeley
Legend
Project Site
Project Area
Major Road
Minor Road
Path/Track
LGA
Suburbs
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Site Location
F1-2
Drawing No: 0650342s_Biodiversity_G001_R2.mxd
Date: 21/10/2022
Drawing Size: A4
Drawn By: SP
Reviewed By: DS
Coordinate System: GDA 1994 MGA Zone 56
0
200
400m
N
Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Client: BlueScope Steel Limited
This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.
ERM

Proposed Site Plan

F2-2

Drawing No:	0650342s_Biodiversity_G002_R2.mxd		Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
Date:	21/10/2022	Drawing Size: A4	
Drawn By:	SP	Reviewed By: DS	Client: BlueScope Steel Limited

Coordinate System: GDA 1994 MGA Zone 56

0 100 200m

N

ERM

3. SITE CONTEXT

The Project Area is located within the industrial precinct of Port Kembla, NSW which is approximately 8 km south of Wollongong central business district (CBD), approximately 94 km south of Sydney CBD and is part of the Illawarra Region of NSW.

The Project Area is situated within the Wollongong City Council (Council) Local Government Area (LGA), which covers a total area of 684 km^2 and has a population of 219,798 (ABS, 2021). The Project is located within the main industrial area of the Wollongong City Council and specifically centres around Port Kembla Steelworks and Port Kembla Harbour.

Land within Port Kembla is predominantly zoned as *IN3 Heavy Industrial* and *SP1 Special Activities* pursuant to the Wollongong Local Environmental Plan 2009 (Wollongong LEP) and consists of mostly cleared and heavily industrialised land. The entirety of the proposed Project works are within areas of PKSW zoned *IN3 Heavy Industrial*.

The Project Site is contained within BlueScope's existing Port Kembla Steelworks (PKSW), which currently contains plate mill furnaces, descaling box, descaling pumps, plate processing cutters and cranes along with car parks and access roads. Access to the PKSW is provided along its northern entrance via Springhill Road.

The footprint (Project Site) is heavily developed, and contains planted and landscaped vegetation in a modified condition only (refer to Figure 3.2). Planted native and non-native vegetation across the site includes Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*), *Ficus sp*., Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp*.. This vegetation does not make up a Plant Community Type (PCT). The Project will result in the removal of small areas of this planted vegetation only, as demarked in Figure 3.2.

The nearest non-planted native treed vegetation is located adjacent to the PKSW site on the northwestern boundary. Based on a review of the Illawarra Plant Community Type Vegetation Map (VIS_ID 4678, 2016) this vegetation is mapped as PCT 1326 *Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion* and PCT 694 *Illawarra Escarpment Blackbutt Forest*. This area will not be subject to direct or indirect impacts as a result of the Project.

PCT 1326 is associated with TECs *Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion* and *River-flat Eucalypt Forest on Coastal Floodplains of Southern New South Wales and Eastern Victoria*. Both TECs are listed under the BC Act and EPBC Act. The Project is unlikely to have an impact on any native vegetation communities, with no direct or indirect impacts to areas of native vegetation and habitat located on the adjacent property.

A search of the NSW BioNet database for threatened species records within 5km buffer of the Project Site from the last 50 years was undertaken on 19th July 2022. No threatened species are recorded within the Project Site. One (1) threatened species was recorded within the Project Area, the Sooty Oystercatcher (*Haematopus fuliginosus*) from 2001, with accuracy of 100m. Suitable habitat for the species of rocky headlands, rocky shelves, exposed reefs with rock pools, beaches and muddy estuaries (NSW OEH 2022) is not present within the Project Area.

Additional threatened species records within 1 km of the Project Site include:

- Green and Golden Bell Frog (*Litoria aurea)*
- Grey-headed Flying Fox (*Pteropus poliocephalus)*
- Black-necked Stork (*Ephippiorhynchus asiaticus)*

Habitat for the Green and Golden Bell Frog and Black-necked Stork is not present within the Project Site, however highly mobile species may fly over the Project Site as part of their generalist habitat requirements. Limited suitable habitat for the Grey-headed Flying Fox is present within the Project Site, in the form of *Eucalyptus, Corymbia, Ficus* and *Lophostemon* species. These trees are not considered to make up a plant community type (PCT), are not considered critical foraging habitat for the Grey-headed Flying-fox, they do not utilise the trees as roosts, and are not unique to the locality with similar vegetation planted across the broader PKSW Project Area.

It has been determined that no threatened species would be dependent on the limited resources present within the Project Site, and there will be no significant impact to biodiversity values as a result of the Project.

Threatened species records and vegetation mapping completed by the Department of Planning and Environment (2016) are presented in Figure 3.2.

An assessment against the relevant biodiversity values contained within the *Biodiversity Conservation Act 2016* (Sections 1.5 and 6.3) and the *Biodiversity Conservation Regulation 2017* (Clauses 1.4 and 6.1) has been completed and is present below (Table 3-1).

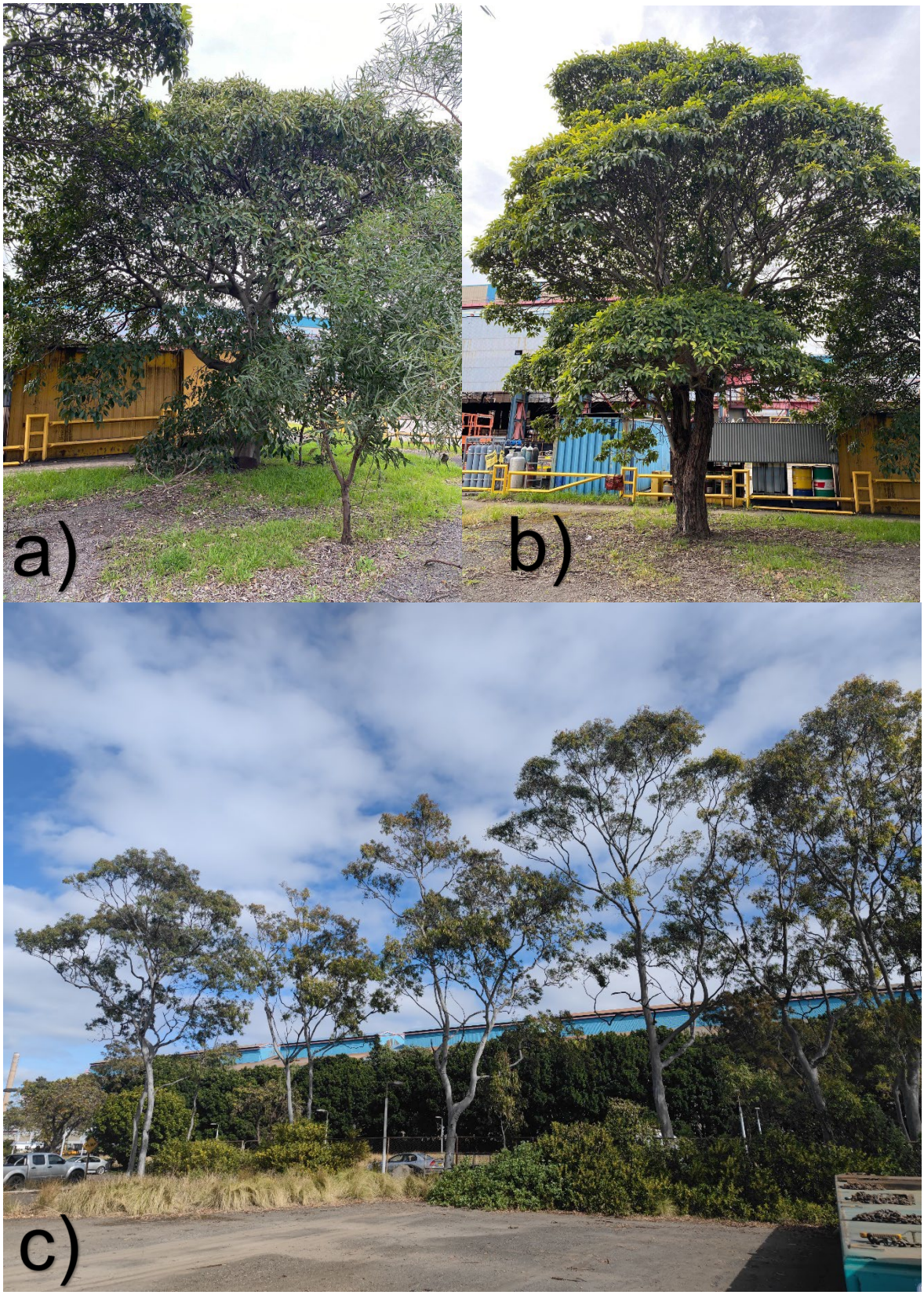
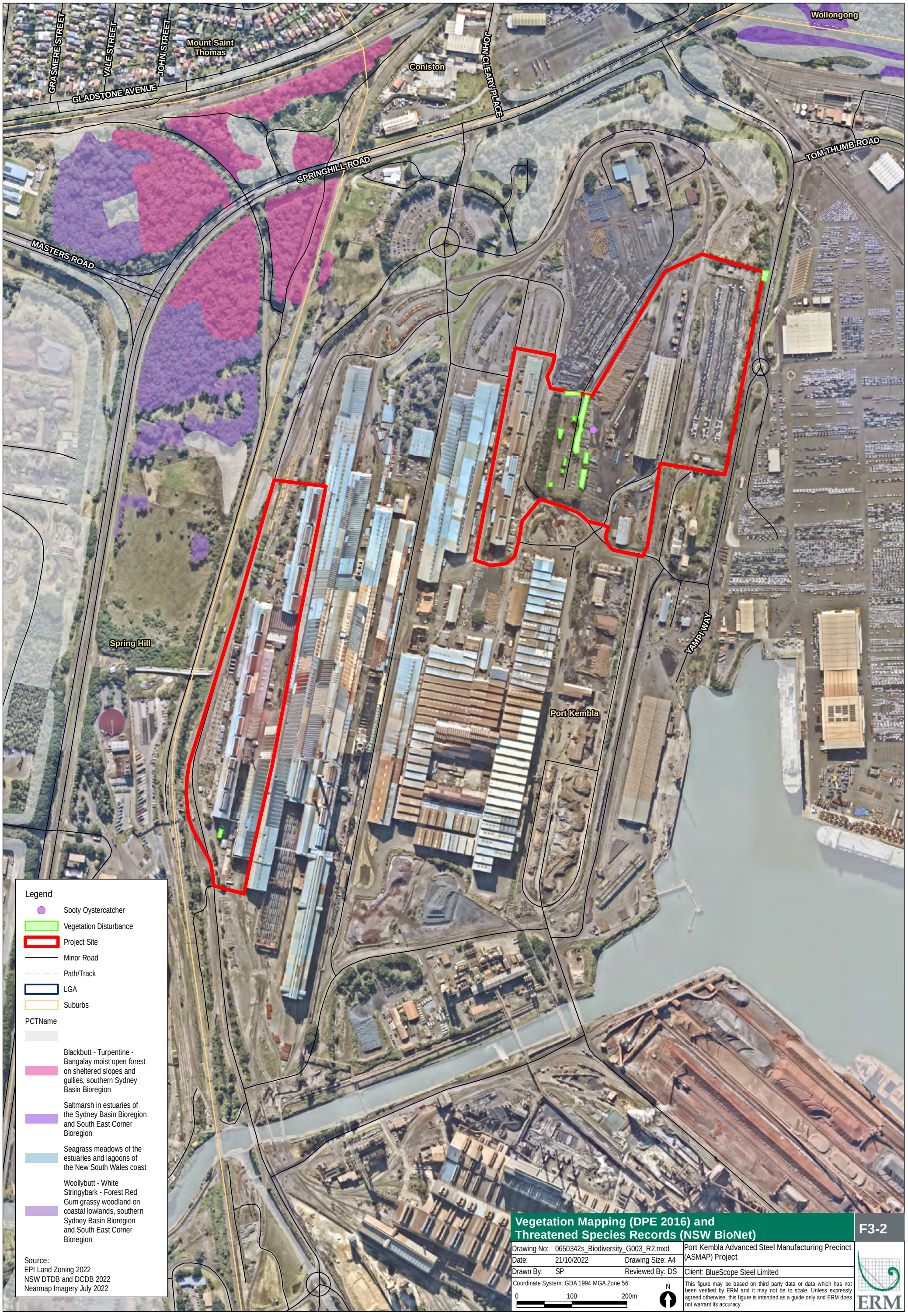


Figure 3.1 Planted Vegetation within Project Site. A) *ficus sp.* at plate mill location b) Brush Box at plate mill location c) *Corymbia maculata* and shrub species at truck staging area


GRASMERE STREET
VALE STREET
JOHN STREET
Mount Saint Thomas
GLADSTONE AVENUE
Coniston
JOHN CLEARY PLACE
Wollongong
SPRINGHILL ROAD
TOM THUMB ROAD
MASTERS ROAD
Spring Hill
Port Kembla
YAMPI WAY
Legend
Sooty Oystercatcher
Vegetation Disturbance
Project Site
Minor Road
Path/Track
LGA
Suburbs
PCTName
Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion
Saltmarsh in estuaries of the Sydney Basin Bioregion and South East Corner Bioregion
Seagrass meadows of the estuaries and lagoons of the New South Wales coast
Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion
Source:
EPI Land Zoning 2022
NSW DTDB and DCDB 2022
Nearmap Imagery July 2022
Vegetation Mapping (DPE 2016) and Threatened Species Records (NSW BioNet)
F3-2
Drawing No: 0650342s_Biodiversity_G003_R2.mxd
Date: 21/10/2022
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Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project
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Table 3-1 Assessment of Biodiversity Values

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
Threatened species Abundance 1.4(a) BC Regulation	Occurrence and abundance of threatened species or threatened ecological communities, or their habitat at a particular site	No	The Project Area is located within the industrial precinct of Port Kembla, NSW, with the Project Site situated within the existing Port Kembla Steelworks (PKSW). The Port Kembla industrial precinct is the main industrial area for the for the Wollongong City Council LGA, and centres around PKSW and Port Kembla Harbour. The Project Site is surrounded by the existing PKSW infrastructure, consisting of plate mill furnaces, descaling box, descaling pumps, plate processing cutters and cranes along with car parks and access roads. Access to the PKSW is provided along its northern entrance via Springhill Road. The Project Site is heavily developed and contains planted and landscaped vegetation in a modified condition only (refer to Figure 3.1). This vegetation across the site is made up of Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*), *Ficus sp.*, Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp.*. This vegetation does not make up a Plant Community Type (PCT). The Project will result in the removal of small areas of this planted vegetation only, as demarked in Figure 3.2. The nearest non-planted native treed vegetation is located adjacent to the site on the northwestern boundary. This vegetation is mapped as PCT 1326 *Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion* and PCT 694 *Illawarra Escarpment Blackbutt forest* (VIS_ID 4678, 2016). The Project is unlikely to have an impact on surrounding vegetation, with the nearest element of the Project (internal access road hardstand) being approximately 18 m from this vegetation. PCT 1326 is associated with TECs Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion and River-flat Eucalypt Forest on Coastal Floodplains of Southern New South Wales and Eastern Victoria. Both TECs are listed under the BC Act and EPBC Act. No vegetation that would constitute a PCT or a TEC is present within the Project Site, and the Project will not impact on any PCTs or TECs in the locality.

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
			No threatened species have been recorded and no significant habitat features are available within the Project Site. In the broader Project Area, records have been made of the Sooty Oystercatcher (*Haematopus fuliginosus*) from 2001, with accuracy of 100m. Habitat for this species of rocky headlands, rocky shelves, exposed reefs with rock pools, beaches and muddy estuaries is absent from the development footprint. Additional threatened species records within 1 km of the Project Site include the Green and Golden Bell Frog (*Litoria aurea),* Grey-headed Flying Fox (*Pteropus poliocephalus)*, and the Black-necked Stork (*Ephippiorhynchus asiaticus)*. Habitat for the Green and Golden Bell Frog and Black-necked Stork species is not present within the Project Site, however highly mobile species may fly over the Project Site as part of their generalist habitat requirements. Limited suitable habitat for the Grey-headed Flyinf-fox is present within the Project Site, in the form of *Eucalyptus, Corymbia, Ficus* and *Lophostemon* species. These trees are not considered to make up a plant community type (PCT), are not considered critical foraging habitat for the Grey-headed Flying-fox, and are not unique to the locality with similar vegetation planted across the broader PKSW Project Area. No threatened species would be dependent on the limited resources present, and there will be no significant impact to biodiversity values as a result of the Project.
Vegetation Abundance 1.4(b) BC Regulation	The occurrence and abundance of vegetation at a particular site	No	The Project Area is located within the industrial precinct of Port Kembla, NSW, with the Project Site situated within the existing Port Kembla Steelworks (PKSW). The Port Kembla industrial precinct is the main industrial area for the for the Wollongong City Council LGA, and centres around PKSW and Port Kembla Harbour. The Project Site is surrounded by the existing PKSW infrastructure, consisting of plate mill furnaces, descaling box, descaling pumps, plate processing cutters and cranes along with car parks and access roads. Access to the PKSW is provided along its northern entrance via Springhill Road. The Project Site is heavily developed, and contains planted and landscaped vegetation in a modified condition only (refer to Figure 3.1). This vegetation across the site is made up of Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*),

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
			Ficus sp., Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp*.. This vegetation does not make up a Plant Community Type (PCT). The Project will result in the removal of small areas of this planted vegetation only, as demarked in Figure 3.2. The nearest native treed vegetation is located adjacent to the site on the northwestern boundary. This vegetation is mapped as PCT 1326 *Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion* and PCT 694 *Illawarra Escarpment Blackbutt Forest* (VIS_ID 4678, 2016). The Project is unlikely to have an impact on surrounding vegetation, with the nearest element of the Project (internal access road hardstand) being approximately 18m from this vegetation. The Project will not impact on any Threatened Ecological Communities. PCT 1326 is associated with TECs Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion and River-flat Eucalypt Forest on Coastal Floodplains of Southern New South Wales and Eastern Victoria. Both TECs are listed under the BC Act and EPBC Act. The project will not directly impact on any native vegetation communities and is unlikely to have an indirect impact on surrounding vegetation on adjacent properties.
Habitat connectivity 1.4(c) BC Regulation	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range	No	The Project Site is heavily developed, and contains planted and landscaped vegetation in a modified condition only. This vegetation is fragmented by existing internal roads and infrastructure, and is currently lacking connectivity to areas of native vegetation communities. This vegetation would not provide connectivity to different areas of habitat of threatened species or facilitate the movement of those species across their range. It is noted that highly mobile species may fly over the Project Site as part of their generalist habitat requirements, and may use vegetation on site for opportunistic foraging. However, no species would be dependent on the limited resources present.

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
Threatened species movement 1.4(d) BC Regulation	Degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle	No	The Project Site is heavily developed, and contains planted and landscaped vegetation in a modified condition only. This vegetation is fragmented by existing internal roads and infrastructure, and is currently lacking connectivity to areas of native vegetation communities. This vegetation would not contribute to the movement of threatened species to maintain their lifecycle. It is noted that highly mobile species may fly over the Project Site as part of their generalist habitat requirements, and may use vegetation on site for opportunistic foraging. However, no species would be dependent on the limited resources present.
Flight path integrity 1.4(e) BC Regulation	Degree to which the flight paths of protective animals over a particular site and free from interference	No	Highly mobile species (including migratory birds and bats) may opportunistically forage within the planted and maintained vegetation present within Project Site as part of their generalist habitat requirements, however no species would not be dependent on the limited resources present. The Project would not interfere with the flight paths of protective animals over the Project Site, and would not alter or disturb any species movement patterns across this highly disturbed landscape.
Water sustainability 1.4 (f) BC Regulation	Degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site.	No	The Project Area is situated immediately adjacent to the Toms Thumb Lagoon and Allans Creek, however, no streams, estuaries, wetlands, creeks or hydrolines are located within the Project Site. It is unlikely that the Project will impact water sources that sustain threatened species and threatened ecological communities.

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
Vegetation integrity 1.5(2)(a) BC Regulation	the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state	No	The Project Site is heavily developed, and contains planted and landscaped vegetation in a modified condition only (refer to Figure 3.1). This vegetation across the site is made up of Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*), *Ficus sp.*, Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp.*. This vegetation does not make up a Plant Community Type (PCT). The nearest non-planted native treed vegetation is located adjacent to the site on the northwestern boundary. This vegetation is mapped as PCT 1326 *Woollybutt - White Stringybark - Forest Red Gum grassy woodland on coastal lowlands, southern Sydney Basin Bioregion and South East Corner Bioregion* and PCT 694 *Illawarra Escarpment Blackbutt forest* (VIS_ID 4678, 2016). The Project is unlikely to have an impact on surrounding vegetation, with the nearest element of the Project (internal access road hardstand) being approximately 18 m from this vegetation. PCT 1326 is associated with TECs Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion and River-flat Eucalypt Forest on Coastal Floodplains of Southern New South Wales and Eastern Victoria. Both TECs are listed under the BC Act and EPBC Act. No vegetation that would constitute a PCT or a TEC is present within the Project Site, and the Project will not impact on any surrounding PCTs or TECs.
Habitat suitability 1.5(2)(b) BC Regulation	the habitat needs of threatened species are present at a particular site	No	The Project Site is heavily developed, and contains planted and landscaped vegetation in a modified condition only (refer to Figure 3.1). This vegetation across the site is made up of Spotted Gum (*Corymbia maculata*), Forest Red Gum (*Eucalyptus tereticornis*), Brush Box (*Lophostemon confertus*), *Ficus sp.*, Golden Wreath wattle (*Acacia salinga*), Camphor laurel (*Cinnamomum camphora*), Yucca (*Yucca filamentosa*), Hoop Pine (*Araucaria cunninghamii*), *Casuarina sp.,* and *Callistimon sp.*. This vegetation does not make up a Plant Community Type (PCT). No threatened species have been recorded and no significant habitat features are available within the Project Site.

Biodiversity Value	Meaning	Potential Impact	Explain and document potential impacts including additional impacts prescribed under the Biodiversity Conservation Regulation 2017 (BC Regulation)*
			In the broader Project Area, records have been made of the Sooty Oystercatcher (*Haematopus fuliginosus*) from 2001, with accuracy of 100m. Habitat for this species of rocky headlands, rocky shelves, exposed reefs with rock pools, beaches and muddy estuaries is absent from the development footprint. Additional threatened species records within 1 km of the Project Site include the Green and Golden Bell Frog (*Litoria aurea),* Grey-headed Flying Fox (*Pteropus poliocephalus)*, and the Black-necked Stork (*Ephippiorhynchus asiaticus)*. Habitat for the Green and Golden Bell Frog and Black-necked Stork species is not present within the Project Site, however highly mobile species may fly over the Project Site as part of their generalist habitat requirements. Limited suitable habitat for the Grey-headed Flying-fox is present within the Project Site, in the form of *Eucalyptus, Corymbia, Ficus* and *Lophostemon* species. These trees are not considered to make up a plant community type (PCT), are not considered critical foraging habitat for the Grey-headed Flying-fox, and are not unique to the locality with similar vegetation planted across the broader PKSW Project Area. Additionally there are no karst, caves, crevices, cliffs or other areas of geological significance within the Project Site or the Project Area. No threatened species would be dependent on the limited resources present, and there will be no significant impact to biodiversity values as a result of the Project.

4. CONCLUSION

The Project Site does not support any threatened species or ecological communities and no significant habitat features have been identified. Based on the long history of disturbance and the modified condition of the Project Site, it is unlikely that the Project would result in any significant impacts on ecological values listed under the BC Act or the EPBC Act. For the reasons provided above it is considered that the proposed development will not result in any significant impact on biodiversity values of the site, and that a waiver to the provision of a BDAR is requested.

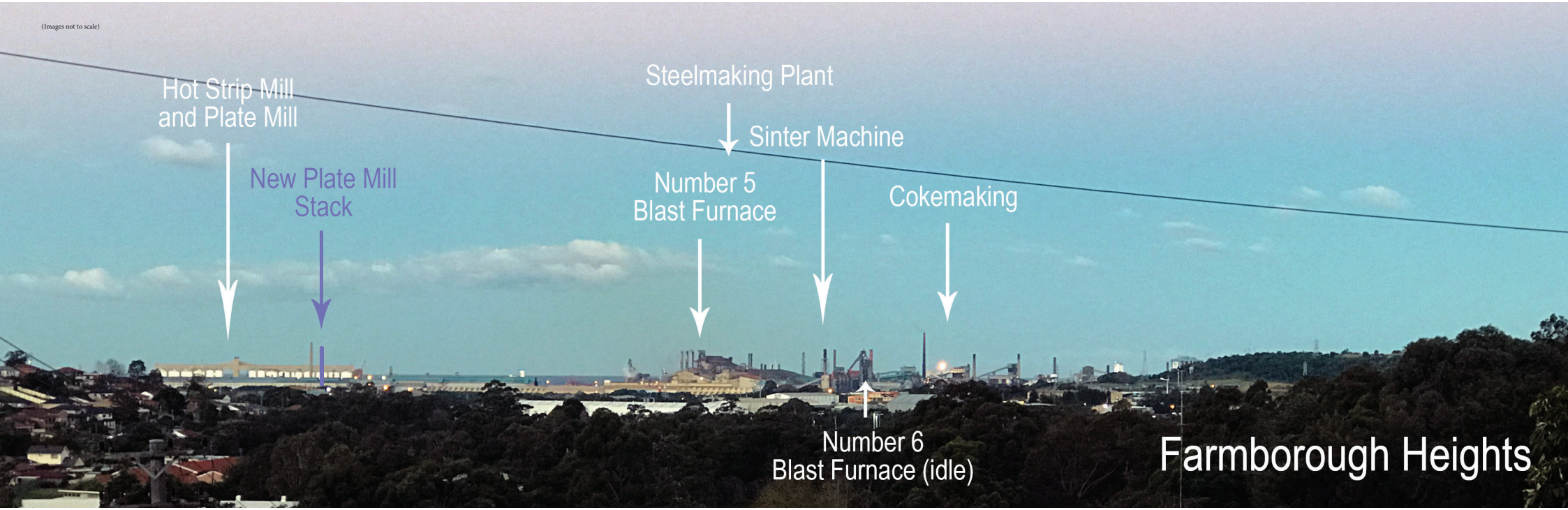
5. REFERENCES

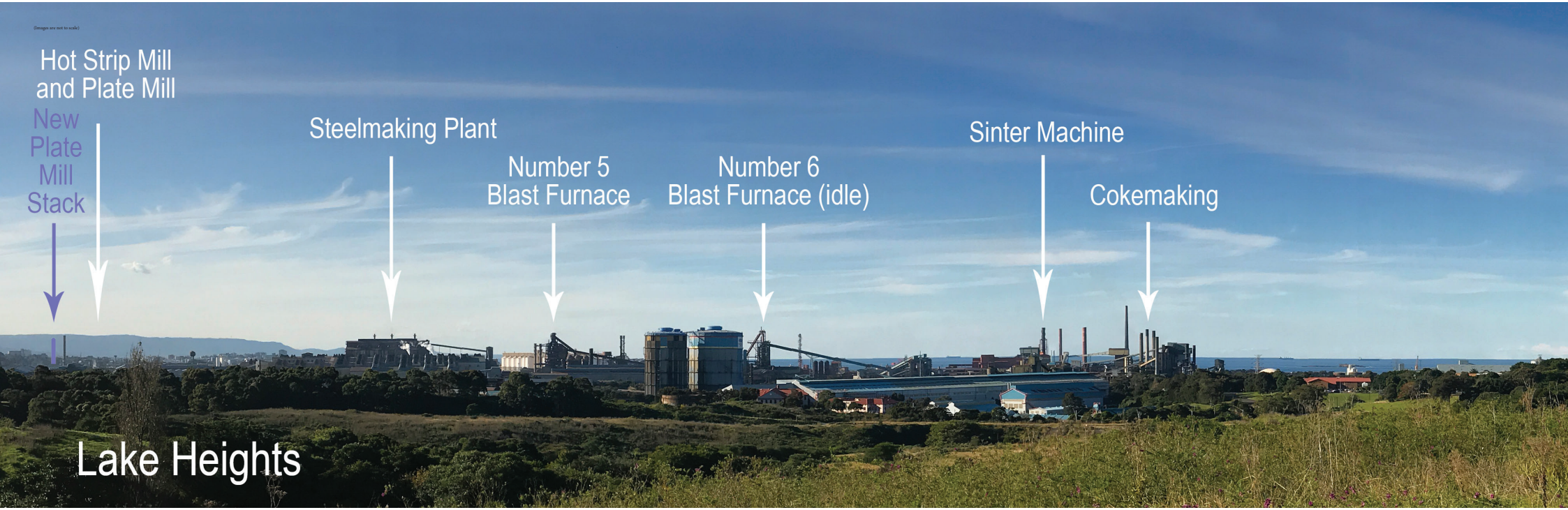
DPE (2016) Ilawarra Plant Community Type Vegetation Map, 2016. VIS_ID 4678. Retrieved online https://datasets.seed.nsw.gov.au/dataset/illawarra-compiled-plant-community-type-map-2016-vis-id-4678

NSW BioNet (2022) Species Sighting Search. Online resource retrieved from: https://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS_/AtlasSearch.aspx

APPENDIX E PROJECT VIEWPOINTS


Sinter Machine
Cokemaking
Number 6
Blast Furnace
(idle)
Number 5
Blast Furnace
Steelmaking Plant
New
Plate
Mill
Stack
Flagstaff Hill, Wollongong
(Images are not to scale)


(Images not to scale)
Hot Strip Mill
and Plate Mill
New Plate Mill
Stack
Steelmaking Plant
Sinter Machine
Number 5
Blast Furnace
Cokemaking
Number 6
Blast Furnace (idle)
Farmborough Heights


(Images are not to scale)
Hot Strip Mill and Plate Mill
New Plate Mill Stack
Steelmaking Plant
Number 5 Blast Furnace
Number 6 Blast Furnace (idle)
Sinter Machine
Cokemaking
Lake Heights

APPENDIX F HERITAGE ASSESSMENT METHODOLOGY

ERM

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26 October 2022

Reference: 0650342

BlueScope Port Kembla Advanced Steel Manufacturing Precinct (ASMAP) Project – Project Information and Assessment methodology

1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by BlueScope Steel (AIS) Pty Ltd (BlueScope) to conduct a heritage assessment to support the State Significant Development Application for the Advanced Steel Manufacturing Precinct (ASMAP) located within the existing BlueScope industrial estate at Port Kembla, NSW.

BlueScope proposes to upgrade and modernise certain existing steel manufacturing facilities located at the Port Kembla Steelworks (PKSW) to service new and growing markets in the renewable energy and defence sectors. The ASMAP Project aims to enhance the supply of Australian steel by upgrading the existing plate steel production facility and to install a new wind tower manufacturing facility. It is anticipated that the proposed ASMAP project will also meet the *Responsible Steel* Standard attained by BlueScope.

The Aboriginal heritage assessment of the ASMAP Project Area is being undertaken in parallel with the heritage assessment of the HyKembla project elsewhere on the PKSW property managed by Austral Archaeology Pty Ltd (Austral).

Preliminary consultation for both Projects is being completed by Austral to develop a group of Registered Aboriginal Parties (RAPs) for the Project and invite all RAPs to attend a site meeting to review the Project Area for both Projects. Following completion of the Site Meeting, ERM will prepare an Aboriginal heritage assessment to support the ASMAP Project's Environmental Impact Statement (EIS).

The Aboriginal heritage assessment will be developed in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW 2010* (Code of Practice). This assessment will detail the results of consultation undertaken with Aboriginal parties who register their interest in the combined consultation process for the ASMAP and HyKembla Projects.

1.1 SEARS

To date, the Secretary's Environmental Assessment Requirements (SEARs) for the ASMAP have not been provided. SEARs are anticipated to be issued mid to late-November. Based on feedback from the NSW Department of Planning and Environment (DPE) it is understood that the completion of a full ACHAR would not be required for the ASMAP Project. An alternate assessment and consultation process has been developed for the ASMAP Project to ensure that RAPs are provided the opportunity to engage and provide feedback on the ASMAP Project outside of the existing ACHAR framework.

1.2 Proposed Development

The ASMAP Project aims to enhance the supply of Australian steel by upgrading the existing plate steel production facility and to install a new wind tower manufacturing facility.

Specific works include:

- Within the existing Plate Mill:
  - The construction of a new Walking Beam Furnace to replace two existing furnaces;
  - Upgrades to the descaling system and electrical infrastructure;
  - New equipment for the processing of heavy plate, including oxy cutters, a transfer conveyor, cranes and other ancillary equipment;
- A wind tower manufacturing facility; and
- All ancillary infrastructure to enable completion of ASMAP, including but not limited to internal roads, hardstands, construction compounds and laydown areas.

1.3 Proposal Area

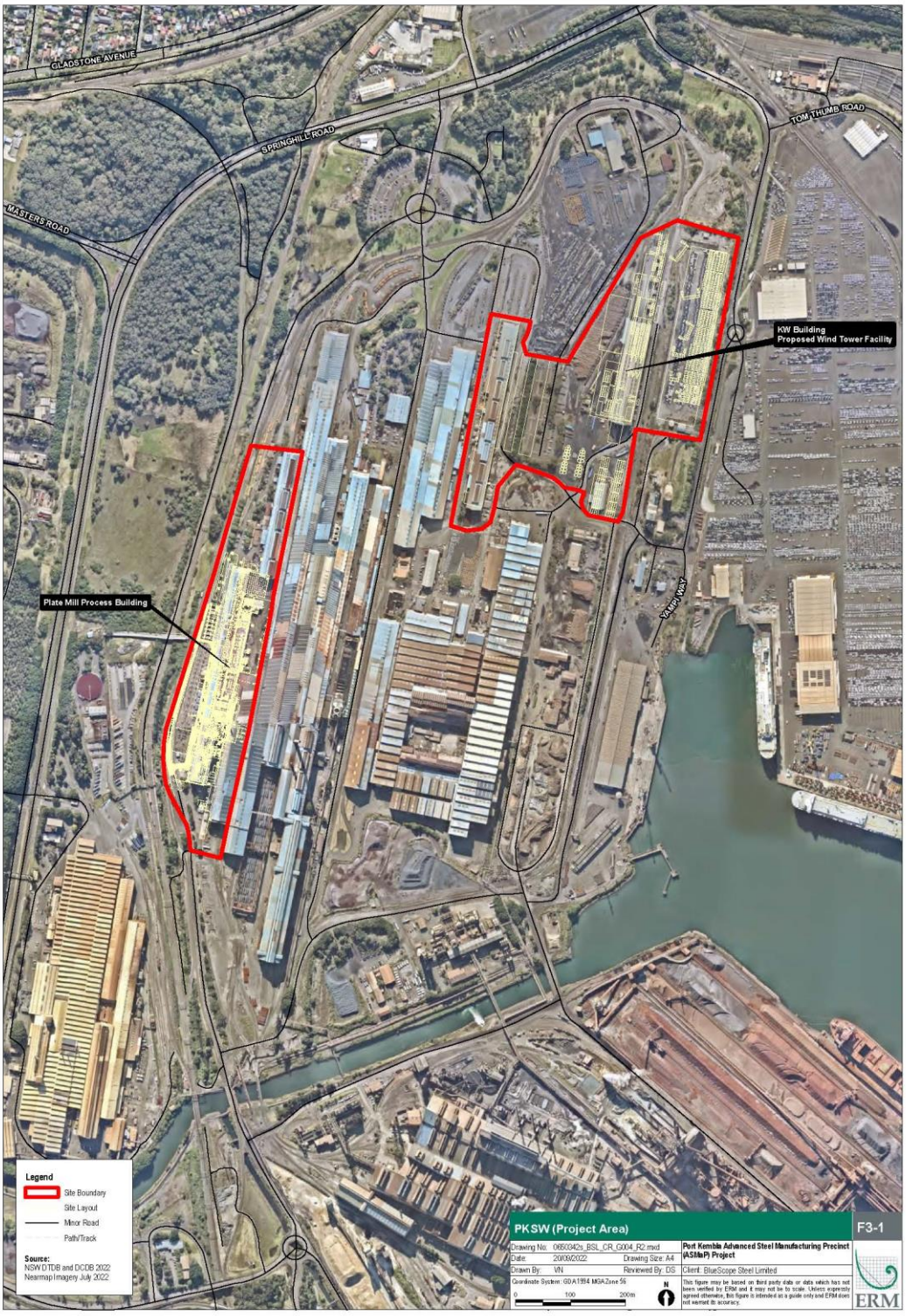
The ASMAP Project Area is located within the broader PKSW located at Five Islands Road, Port Kembla 2505, NSW. The ASMAP Project Area is contained within Lot 1 of DP 606434 and wholly within the WCC LGA (Figure 1.1).

The PKSW is located within the industrial zoning of Port Kembla and has other heavy industrial neighbours, as shown in Figure 1.2. The existing Plate Mill facility at PKSW includes BlueScope's existing plate mill furnaces, descaling box, descaling pumps, plate processing cutters and cranes.

Administratively, the ASMAP Project Area is situated within the Wollongong City Council (WCC) Local Government Area (LGA). The ASMAP Project Area is situated on Dharawal land, within the boundary of the Illawarra Local Aboriginal Land Council (ILALC).

Figure 1.1: ASMAP Project Area

Figure 1.2: Proposed development footprint



2. PROJECT AREA HISTORY

The ASMAP Project Area has been subject to extensive disturbance, modification and development over its history. Prior to European occupation, the area was inhabited by the Wodi Wodi people of the Dharawal language group, and the Yuin linguistic tradition (Tindale, 1974). The Dharawal are understood to be highly mobile, with long-standing connections with the neighbouring Gandangarra and Cobrakall groups. It is likely the margins of Tom Thumb Lagoon once formed a significant focus of Dharawal occupation. Early European explorers in particular have noted the presence of Aboriginal people and campsites along Tom Thumb Lagoon.

European occupation began with the travels of Flinders and Bass in 1796, with a gradual increase in non-Aboriginal population and infrastructure. The *Port Kembla Harbour Act 1898 (Act No. 34)* and the *Port Kembla (Northern Breakwater) Act 1912 (Act No. 65)* brought substantial developments to the area in the forms of the eastern breakwater and the resumption of farming activities respectively (Reynolds 2001, p.9).

In 1918, reclamation of Tom Thumb Lagoon (including the current ASMAP Project Area) by infilling with excavated spoil was undertaken to allow for industrial development. This was the beginning of significant modification to the surrounding landscape over the years to come.

The first half of the 20th century saw rapid development of the PKSW. Key dates and infrastructure are listed here:

- 1938 – Construction of the Port Kembla Railway and Springhill Lysaght works
- 1940s – Complete infilling of Tom Thumb Lagoon (**Figure 2.1**)
- 1955 – Extensive clearing and development of the Hot and Cold Strip Mills in the centre and north of PKSW
- 1960 – Construction of the Inner Harbour

With each of these developments, more and more land was cleared. Existing infrastructure was continuously renovated and replaced. By the 1970s, the entire footprint of the PKSW had been modified in some manner resulting in a total alteration of the original landscape land surface (**Figure 2.2** and **Figure 2.3**). Such extensive development has likely destroyed or displaced any Aboriginal heritage objects from the ASMAP Project Area. The high levels of industrialisation of the landscape have also likely resulted in significant impact to existing cultural values associated with the wider cultural landscape.

Figure 2.1: Historical aerial photograph of ASMAP Project Area taken in 1950. Note Tom Thumb Lagoon to the right of the image

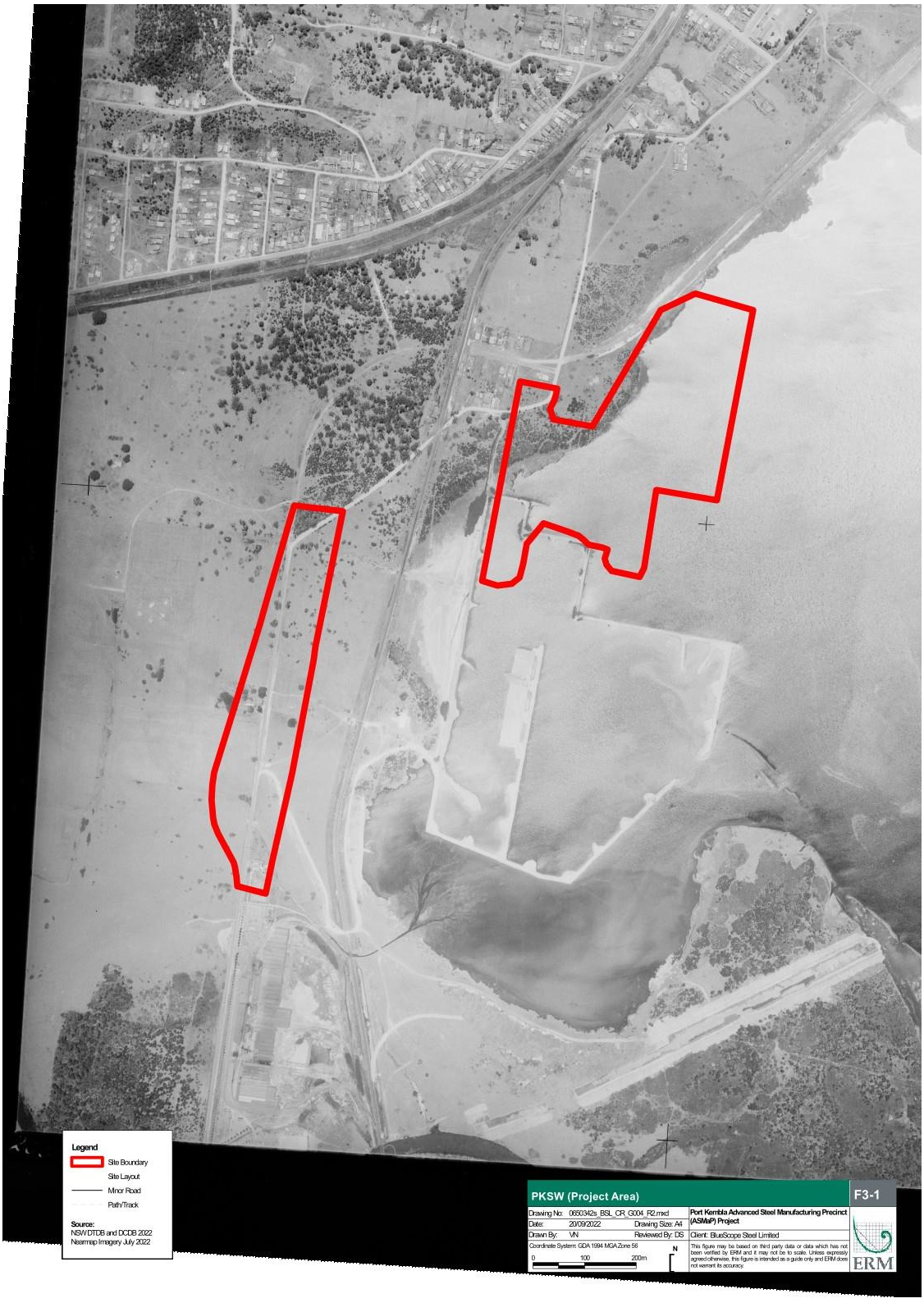


Figure 2.2: Historical aerial photograph of ASMAP Project Area taken in 1975. Note infilled Tom Thumb Lagoon from compared to Figure 2-1.

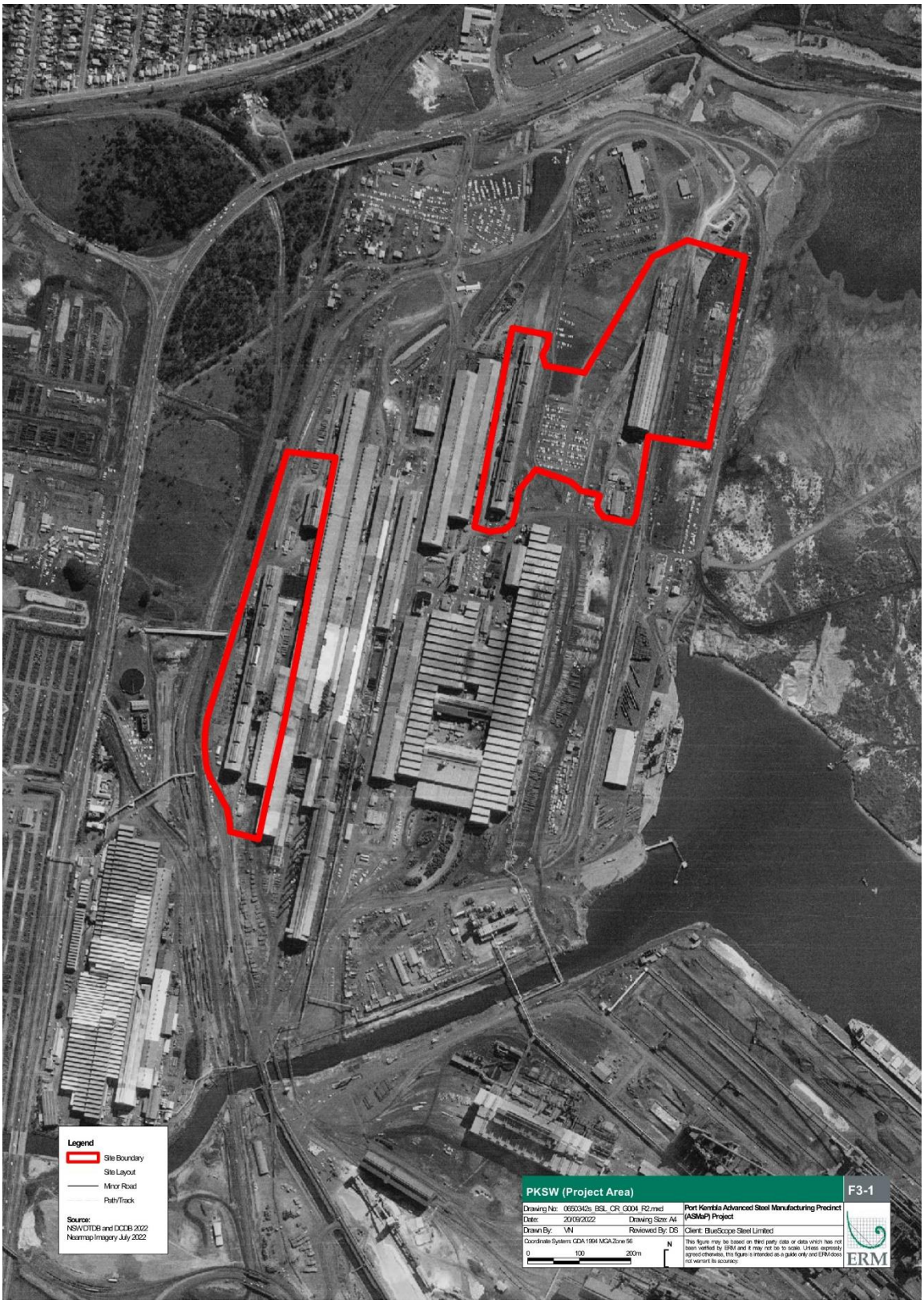


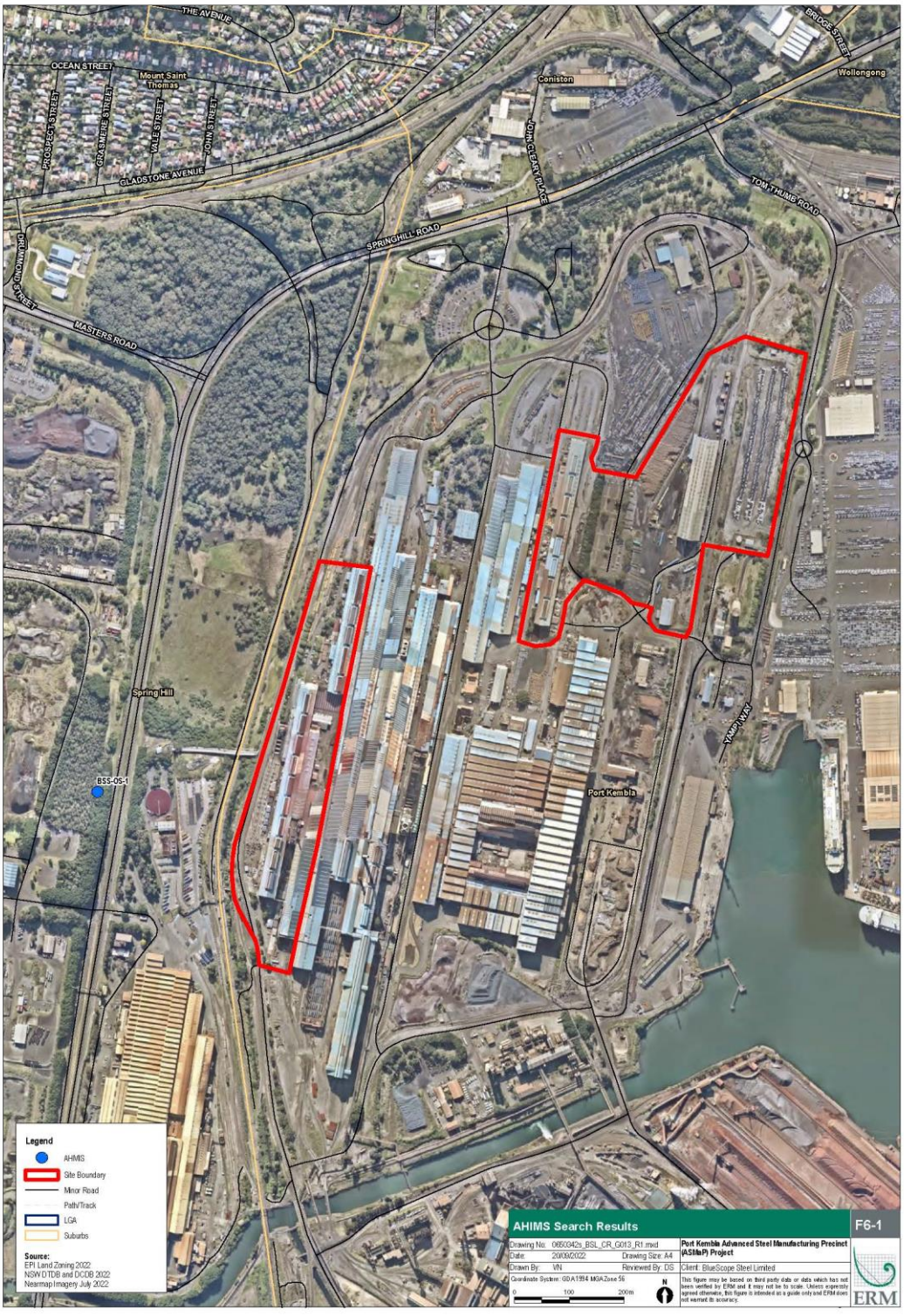
Figure 2.3: Historical aerial photograph of ASMAP Project Area taken in 2001.

3. ABORIGINAL HERITAGE REGISTER SEARCHES

A review of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 16 August 2022 to develop an understanding of any Aboriginal sites which may have been registered within a 1 km buffer of the PKSW. The search resulted in the identification of one (1) Aboriginal site being recorded in or near the PKSW location.

The identified site, BSS-OS-1 (AHIMS # 52-2-3618) is located approximately 280m west of the new Plate Mill site (Figure 3.1). The site was recorded to be comprised of two flaked artefacts in a disturbed context associated with Springhill Road/ The Horse Paddock (see Figure 3.1).

Figure 3.1: AHIMS extensive search results



4. ABORIGINAL HERITAGE METHODOLOGY

The Aboriginal heritage assessment will be prepared in accordance with the Code of Practice and will also include consultation with RAPs. The following steps will be utilised to consult with RAPs and complete the Aboriginal heritage assessment for the ASMAP Project.

4.1 Background research and predictive modelling

Existing background information will be reviewed to gain a contextual understanding of the cultural landscape associated with the ASMAP Project Area. Review of background information will include assessment of environmental information, former historic land use, available ethnographic information, as well as existing registered Aboriginal heritage sites and reports.

4.2 Aboriginal Community Consultation

Consultation will be undertaken with RAPs utilising an alternative consultation approach. The alternative consultation approach has been developed to involve RAPs in decision making regarding Aboriginal cultural heritage issues arising from the ASMAP Project. The modified consultation process will involve:

- **Task 1: Identification of Aboriginal stakeholders**

Identification of RAPs for the ASMAP Project was undertaken jointly with BlueScope's HyKembla Project. As part of this Austral Archaeology contacted local government agencies (as listed in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents*) to request names of potentially interested parties. An advert was also placed in the Illawarra Mercury on 24 September 2022 requesting registrations of interest in both Projects.

Following this, Austral contacted all individuals or groups identified by those government agencies to request their registration of interest in the Projects. All individuals/groups who registered their interest were requested to express interest in completing an on-site meeting to discuss the Projects and to be provided an opportunity to view the site.

- **Task 2: Site meeting and survey**

At the site meeting a brief introductory presentation will be provided for both Projects. This document will be provided during the site meeting to contextualise the sites background and ensure that the assessment approach is clear to all RAPs. An opportunity for RAPs to provide comment on the methodology will be available both during and following the site meeting. Any RAPs who are unable to attend the site meeting will be provided a copy of the document via email or post.

Following the preliminary site meeting all participants will be transferred by vehicle to the Project Area for each Project and provided an opportunity to undertake a site survey of the proposed works locations. As part of this site survey, the ERM Heritage Consultant will be taking photographs and notes recording identified site conditions. Due to the heavily modified nature of the site, site survey would focus on documenting the degree of disturbance across the Project Area and providing the RAPs an opportunity to raise any concerns or identify any cultural values which should be identified as part of the assessment.

- **Task 3: Aboriginal heritage assessment**

Following completion of the site meeting and survey an Aboriginal heritage assessment would be completed in accordance with the requirements of the Code of Practice.

The aim of the assessment would be to identify Aboriginal Objects, Potential Archaeological Deposits or intangible values which may be impacted by the proposed works and document the results of consultation undertaken as part of the ASMAP Project.

Following the identification of Aboriginal heritage values, an impact assessment would be completed to identify whether any Aboriginal Objects, Places or cultural values would be harmed by the proposed works. Where harm is identified which cannot be avoided, recommendations to manage and mitigate the harm would be proposed.

Once the draft Aboriginal heritage assessment has been developed it will be issued to all RAPs for review as part of the consultation process.

4.3 Assessment Timeframes

Proposed timing for completion of tasks associated with both the site visit and Aboriginal heritage assessment for the ASMAP Project.

Table 4.1: Assessment Timeframes

Assessment step	Description	Indicative start
1	Develop list of RAPs	End September 2022
2	Site meeting and provision of assessment methodology	25 October 2022
3	Development of draft Aboriginal heritage assessment	Late-October – November 2022
4	Issue of draft Aboriginal heritage assessment for BlueScope	Early December 2022
5	Issue of draft Aboriginal heritage assessment for RAP review	1 week following receipt of comments from BlueScope.

APPENDIX G CUMULATIVE IMPACT ASSESSEMENT SCOPING SUMMARY

Key

Level of Assessment	Description
Detailed Assessment	The Project may result in significant impacts on the matter, including cumulative impacts. Detailed assessment is characterised by: ■ Potential overlap in impacts between a future project (e.g., Project A) and the proposed project ■ Potential for significant cumulative impacts as a result of the overlap, requiring detailed technical studies to assess the impacts ■ Sufficient data is available on the future project to allow a detailed assessment of cumulative impacts with the proposed project for the relevant matter ■ Uncertainties exist with respect to data, mitigation, assessment methods and criteria
Standard Assessment	The Project is unlikely to result in significant impacts on the matter, including cumulative impacts. Standard assessments are characterised by: ■ Impacts are well understood ■ Impacts are relatively easy to predict using standard methods ■ Impacts are capable of being mitigated to comply with relevant standards or performance measures ■ the assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.
N/A	No potential overlap in impacts between a future project and the proposed project that would warrant any consideration in the cumulative impact assessment

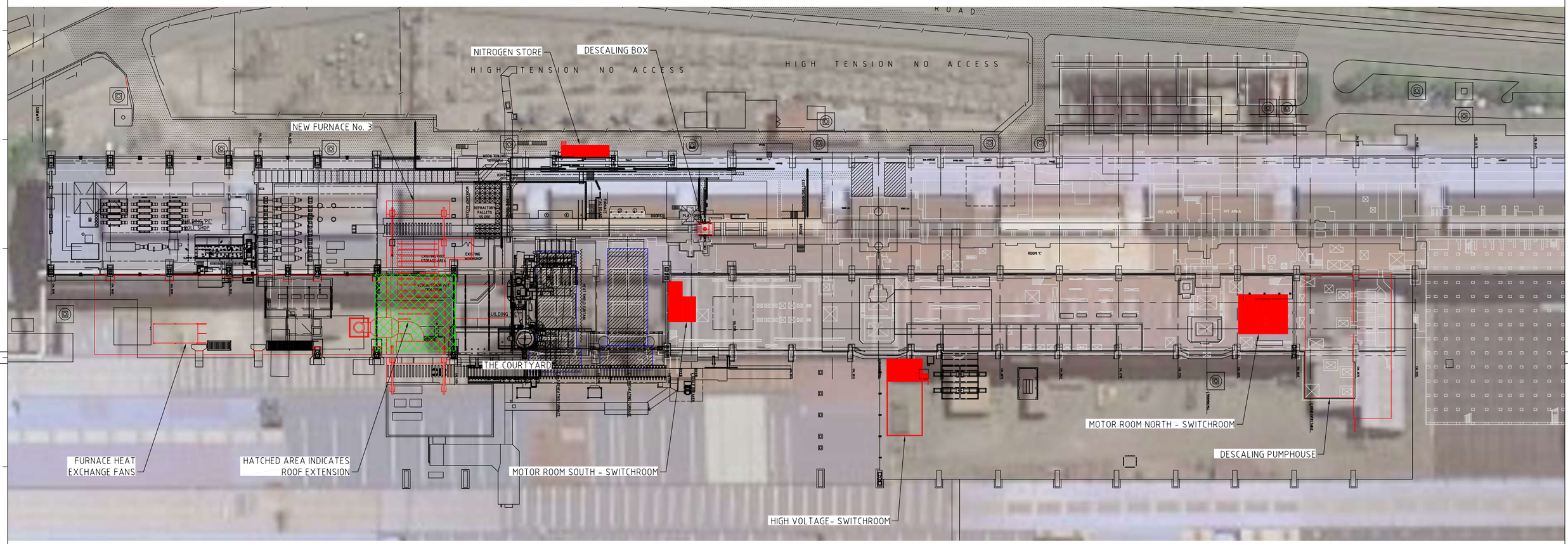
Cumulative Impact Assessment Scoping Summary Table

Project	Distance to Project (approx.)	Project Status/ Indicative timing/ Overlap	Potential overlap between impacts of Project and impact of other projects			
			Access (Traffic and Transport)	Amenity – Noise	Air Quality	Contamination
SSD-45936713 HyKembla – Hydrogen Electrolyser Pilot Plant Project Proposed (Prepare EIS)	Onsite	■ Currently in its early planning phase. ■ Construction and operations timeframes unknown – potential overlap is anticipated.				
	Key Features ■ Stage 1 - Installation of 10 MW containerised Polymer Electrolyte Membrane electrolyser to generate hydrogen on-site for BF5. ■ Stage 2 – Expansion of the hydrogen electrolyser plant by 30 MW.		Low risk of cumulative impacts relating to access, traffic and transport, subject to the transport route during construction and operation. Further assessment required.	Construction	Low risk of cumulative air quality impacts. Further assessment required	Construction and operation
SSI-22545215 BlueScope's No. 6 Blast Furnace Reline and Operations Proposed (Response to Submissions)	Onsite	■ Construction commencing 2023 and completing by 2026 – construction overlap. ■ Operations overlap.				
	Key Features ■ Return 6BF to service through a reline process (major repair activities). ■ Operation involves a thermochemical process of reduction of iron ore (part of the ironmaking process).		Low risk of cumulative impacts relating to access, traffic and transport, subject to the transport route during construction and operation. Further assessment required.	Construction	Construction and operation	Construction and operation
SSI-9471 Port Kembla Gas Terminal	500 m	■ Construction commenced. ■ Operations to commence from 2023.				

Project	Distance to Project (approx.)	Project Status/ Indicative timing/ Overlap	Potential overlap between impacts of Project and impact of other projects			
			Access (Traffic and Transport)	Amenity – Noise	Air Quality	Contamination
(Approved)	Key Features ■ Development of a liquified natural gas (LNG) import terminal at Port Kembla – including a 6.3 km underground gas pipeline network. ■ Demolition and construction of a wharf at Port Kembla.		Low risk of cumulative impacts relating to access, traffic and transport, subject to the transport route during operation. Further assessment required.	No potential overlap	Operation	Operation
SSI-36408005 Commodity Logistics and Import Project Proposed (Prepare EIS)	500 m	■ Construction and operational timeframes unknown – potential overlap is anticipated.				
	Key Features ■ Upgrade of three berths and associated infrastructure to increase the throughput capacity of the berths.		Construction and operation	Construction	Construction and operation	Construction and operation
SSI-30358083 Port Kembla Power Station Proposed (Prepare EIS)	500 m	■ Construction timeframe unknown. ■ Operation expected by 2024/25.				
	Key Features ■ Construction and operation of a single H-class combined cycle gas turbine with a generation capacity of 635 MW.		Construction and operation	Construction	Construction and operation	Construction and operation
SSD-35282103 Port Kembla	1.5 km	■ Construction and operational timeframes unknown – potential overlap is anticipated.				

Project	Distance to Project (approx.)	Project Status/ Indicative timing/ Overlap	Potential overlap between impacts of Project and impact of other projects			
			Access (Traffic and Transport)	Amenity – Noise	Air Quality	Contamination
Bitumen Import and Dispatch	Key Features Construction and operation of a bitumen import and dispatch facility with a maximum annual throughput of approximately 100,000 t, comprised of ■ Two (2) 10,000 m^3 storage tanks; ■ Two (2) 750 m^3 day tanks; and ■ Ancillary infrastructure and pipelines.		Construction and operation	No potential overlap	Construction and operation	Construction and operation
SSD-33042483 Manildra - Port Kembla Bulk Liquid Terminal (Response to Submissions)	3.5 km	Construction and operational timeframes unknown – potential overlap is anticipated.				
	Key Features ■ Construction and operation of a bulk liquid fuel terminal, comprised of 6 numbers of four (4) ML potable ethanol storage tanks, two (2) pipelines of 300 mm diameter, admin buildings, gantry structures, landscaping and carpark.		Construction and operation	No potential overlap	Construction and operation	Construction and operation

APPENDIX H PRELIMARY DESIGN DRAWINGS



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RESP ENG: -			
REGN APPR: -			

DRAWING REVISIONS

FUNCTIONAL LOCATION CODES - - - -

INDEX CODES N6-02 - - -

REFERENCE DRAWINGS - - -

Port Kembla Steelworks

DRAWING PRODUCED BY:

DISC. ENGINEER OR SPECIALIST - | SUPERVISOR -

ORDER No: - | CONTRACTOR/SUPPLIER REF No: -

CONTRACTOR DETAILS

TITLE BLOCK TO COMPLY WITH SP-ENG-DES-196, VERSION CURRENT AT "DATE DRN"

A1

N6 500 PLATE MILL
PRELIMINARY LAYOUTS AND ARRANGEMENTS
NEW FURNACE
SCOPING REPORT
GENERAL ARRANGEMENT

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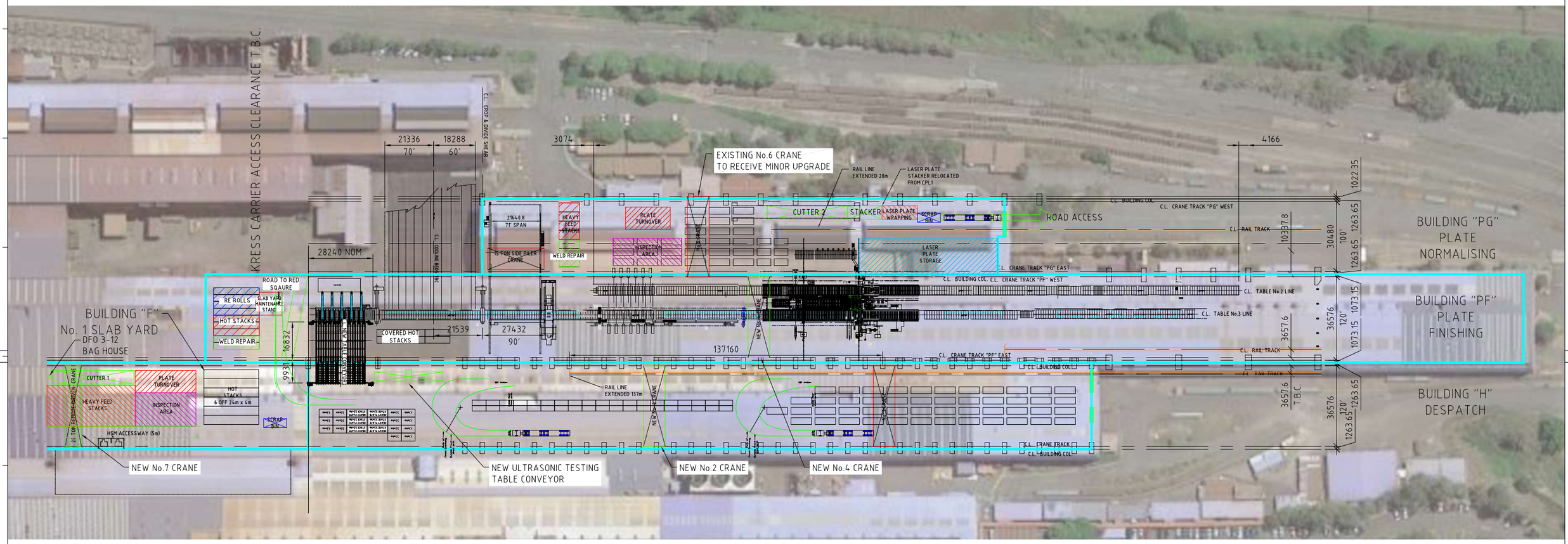

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INDEX CODES N6-02 - - -

REFERENCE DRAWINGS - - -

BLUESCOPE Port Kembla Steelworks

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A1

N6 500 PLATE MILL
PRELIMINARY LAYOUTS AND ARRANGEMENTS
PLATE PROCESSING AND DESPATCH
SCOPING REPORT
GENERAL ARRANGEMENT

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DISC. ENGINEER OR SPECIALIST: - -	RESPONSIBLE ENGINEER: -	REGISTRATION APPROVAL: -	
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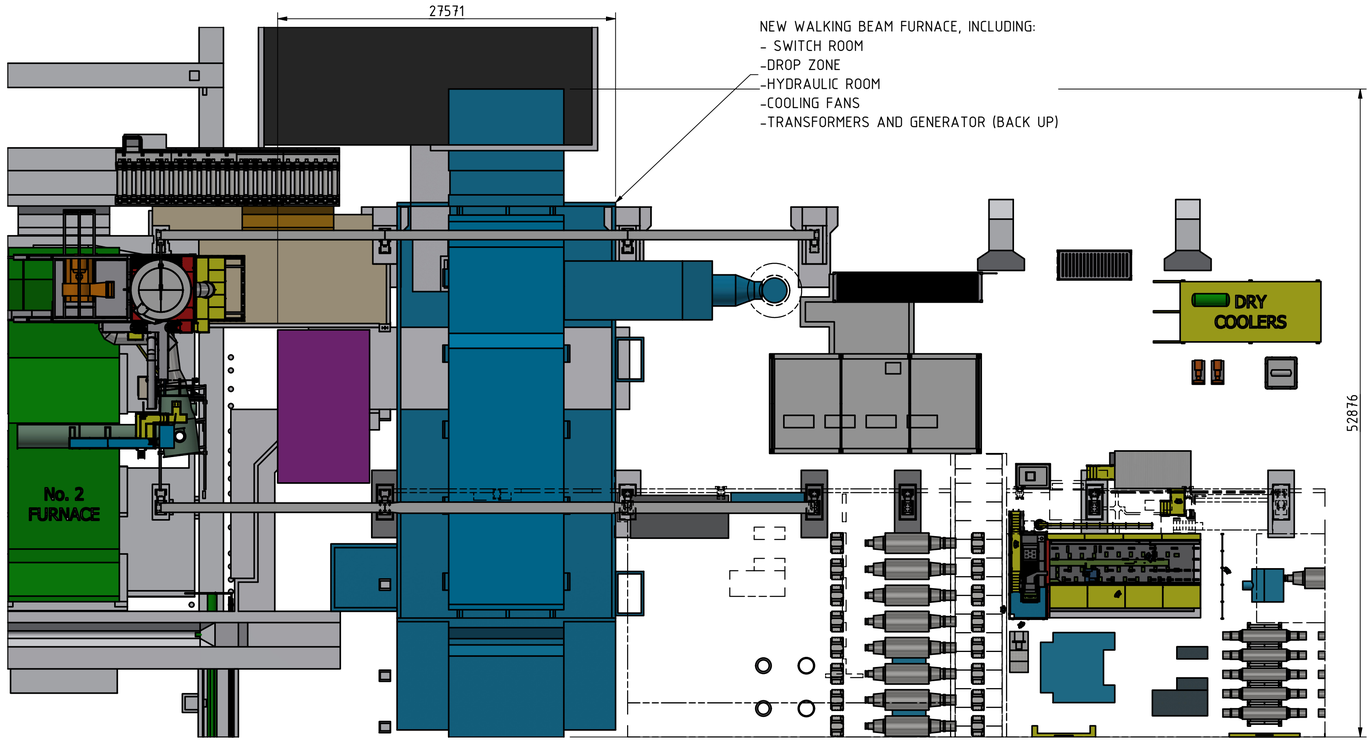

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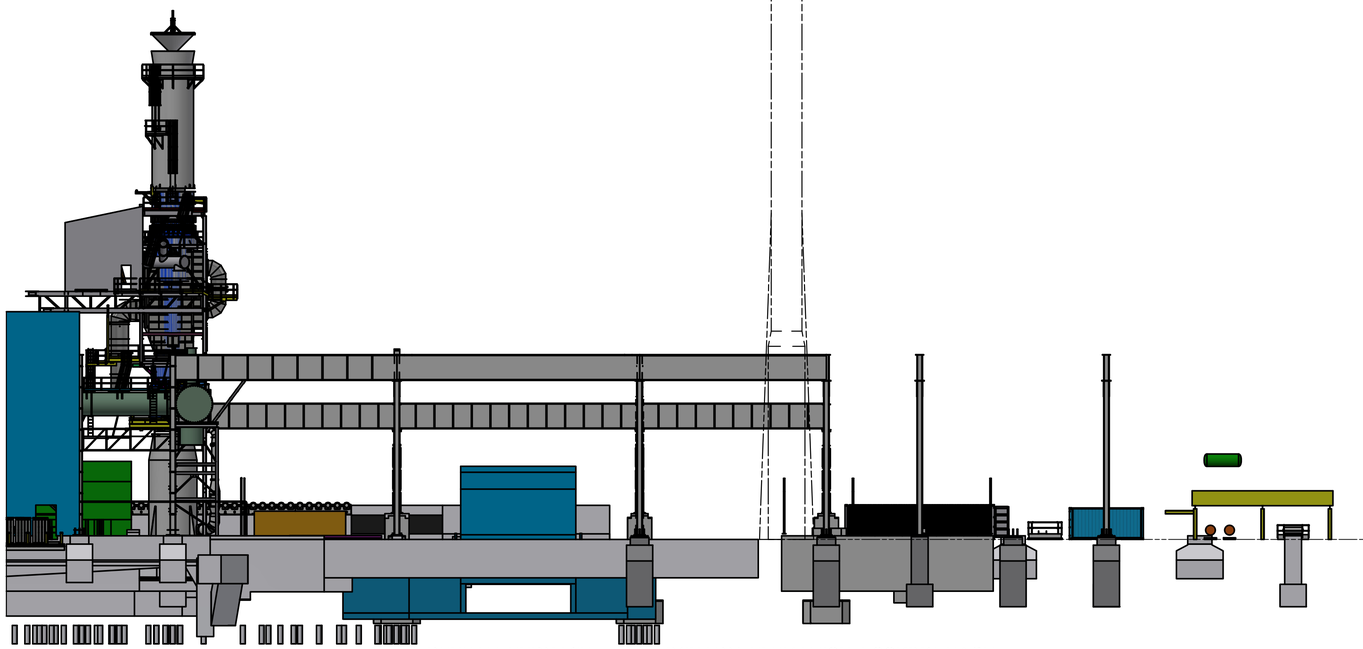

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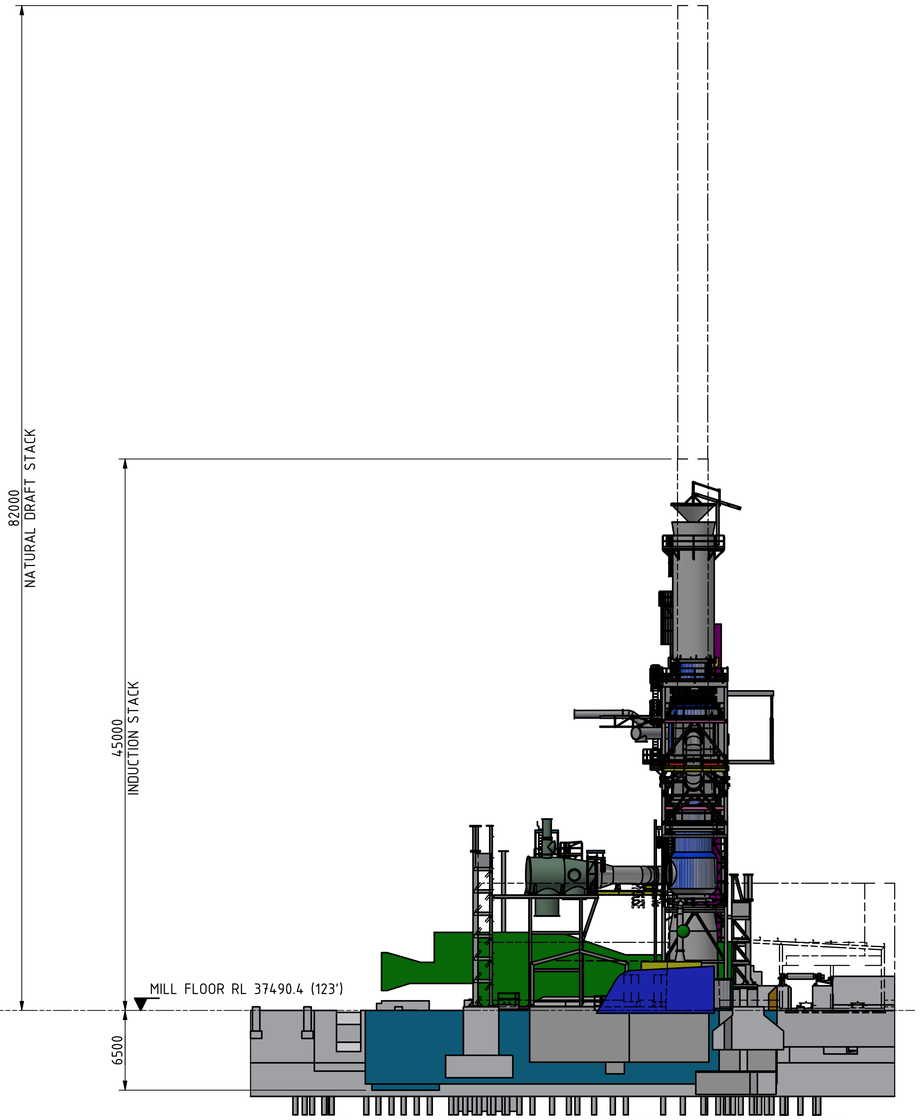

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INDEX CODES

REFERENCE DRAWINGS

BLUESCOPE Port Kembla Steelworks

DRAWING PRODUCED BY: TMo Design & Engineering

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ORDER No: | CONTRACTOR/SUPPLIER REF No.

CONTRACTOR DETAILS

TITLEBLOCK TO COMPLY WITH SP-ENG-DES-196, VERSION CURRENT AT "DATE DRN"

A1

3500 PLATE MILL

No. 3 REHEAT FURNACE

PRELIMINARY ARRANGEMENT AND LAYOUT

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DATE DRAWN 15/09/2022

SCALE AS NOTED

DRAWING No: **ASMAP-SSD-003**

DRAWING STATUS: PRELIMINARY - NOT FOR CONSTRUCTION

REV No 2

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KW BUILDING PLAN
SCALE 1:1000

THIS DRAWING TO BE READ IN CONJUNCTION WITH ASMAP-SSD-005

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DRAWING REVISIONS

FUNCTIONAL LOCATION CODES: - - - -

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BLUESCOPE Port Kembla Steelworks

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DISC. ENGINEER OR SPECIALIST: - | SUPERVISOR: -

ORDER No: - | CONTRACTOR/SUPPLIER REF No: -

CONTRACTOR DETAILS

TITLE BLOCK TO COMPLY WITH SP-ENG-DES-196, VERSION CURRENT AT "DATE DRN"

A1

ASMAP WIND TOWER
PRELIMINARY SITE LAYOUT
PLAN
-
-

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AUTOCAD FILE NAME: ASMAP-SSD-XXX_KW BUILDING SCOPING REPORT.DWG AUTOCAD PRINT: 15/09/2022 04:48 PM

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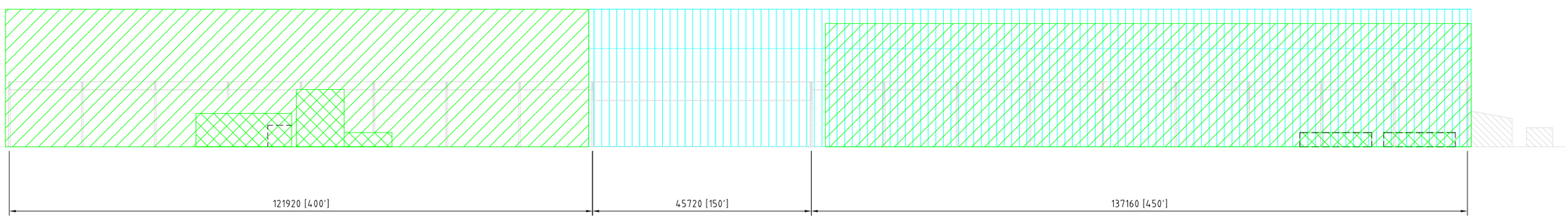
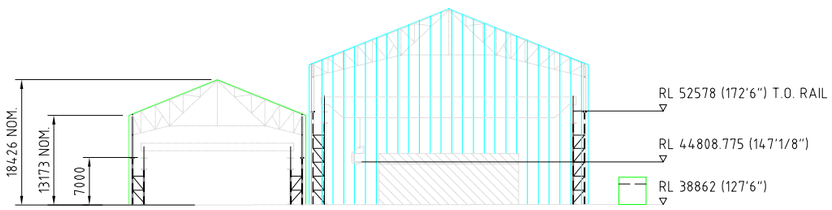
SCALE: AS NOTED	DRAWING STATUS: PRELIMINARY - NOT FOR CONSTRUCTION	

FULL SIZE 0 50 100 150 200 250 300



KW BUILDING ELEVATION LOOKING EAST
SCALE 1:450



KW BUILDING ELEVATION LOOKING NORTH
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DRAWING PRODUCED BY:

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ORDER No: -
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CONTRACTOR DETAILS

TITLE BLOCK TO COMPLY WITH SP-ENG-DES-196, VERSION CURRENT AT "DATE DRN"

A1

ASMAP WIND TOWER
PRELIMINARY SITE LAYOUT
ELEVATIONS
-
-

CHANGE APPROVAL NUMBER: - | PROJECT/WBS No: -

DRAWN	CHECKED	DISC. ENGINEER OR SPECIALIST
TROY MORRIS (TMo D&E)	-	-
		-
DISC. ENGINEER OR SPECIALIST -	RESPONSIBLE ENGINEER -	REGISTRATION APPROVAL -

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AUTOCAD PRINT: 15/09/2022 04:29 PM

DATE DRN 18/08/2022
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DRAWING STATUS: PRELIMINARY - NOT FOR CONSTRUCTION
REV No 1

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