

Moorebank Precinct East - Stage 2 Proposal

Environmental Impact Statement



SIMTA

SYDNEY INTERMODAL TERMINAL ALLIANCE

Part 4, Division 4.1, State Significant
Development

SIMTA MOOREBANK PRECINCT EAST – STAGE 2 PROPOSAL

Moorebank Precinct East – Stage 2

Environmental Impact Statement

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STATEMENT OF VALIDITY

Submission of Environmental Impact Statement Prepared under Part 4, Division 4.1 (State Significant Development) of the <i>Environmental Planning and Assessment Act 1979</i>	
Environmental Assessment prepared by	
Name:	Westley Owers
Qualifications:	BTP (Hons 1) MProvDev
Address:	Level 5, 141 Walker Street North Sydney, NSW 2060
In respect of:	Sydney Intermodal Terminal Alliance (SIMTA)
Applicant Name:	Sydney Intermodal Terminal Alliance (SIMTA)
Applicant Address:	Level 27, 45 Clarence Street, Sydney NSW 2000
Proposed development:	<p>The Proposal would include the following key components:</p> <ul style="list-style-type: none"> • Warehousing comprising approximately 300,000m² GFA and additional ancillary offices • A freight village, comprising 8,000m² GFA of retail, commercial and light industrial land uses • Establishment of an internal road network, and connection of the Proposal to the surrounding public road network • Ancillary supporting infrastructure within the Proposal site, including: <ul style="list-style-type: none"> – Stormwater, drainage and flooding infrastructure – Utilities relocation and installation – Vegetation clearing, remediation, earthworks, signage and landscaping • Subdivision of the MPE Stage 2 site • The Moorebank Avenue upgrade would be comprised of the following key components: <ul style="list-style-type: none"> – Modifications to the existing lane configuration, including some widening – Earthworks, including construction of embankments and tie-ins to existing Moorebank Avenue road level at the Proposal’s southern and northern extents – Raking of the existing pavement and installation of new road pavement – Establishment of temporary drainage infrastructure, including temporary basins and / or swales – Raising the vertical alignment by about two metres from the existing levels, including kerbs, gutters and a sealed shoulder – Signalling and intersection works

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	<ul style="list-style-type: none"> • Upgrading existing intersections along Moorebank Avenue, including: <ul style="list-style-type: none"> – Moorebank Avenue / MPE Stage 2 access – Moorebank Avenue / MPE Stage 1 northern access – Moorebank Avenue / MPE Stage 2 central access – MPW Northern Access / MPE Stage 2 southern emergency access
Land to be developed:	<p>The Proposal site is owned by the Commonwealth and leased by Sydney Intermodal Terminal Alliance.</p> <p>A summary of the legal description (i.e. Lot and Deposited Plan (DP) references) of the Proposal site includes:</p> <ul style="list-style-type: none"> • Lot 1, DP 1048263 • The MPW site - Lot 1, DP 1197707, for stormwater infrastructure • Moorebank Avenue, owned by the Commonwealth Government, south of Anzac Road - Lot 2, DP 1197707 (formerly Lot 3001, 1125930) • A portion of the Boot Land - Lot 4, DP 1197707, for connection to stormwater infrastructure • A portion of the Defence Joint Logistics Unit (DJLU) Lot 3002, DP 1125930, for connection to stormwater infrastructure.
Environmental Impact Statement:	<p>An EIS is attached which addresses all matters in accordance with Part 4 (Division 4.1) of the <i>Environmental Planning and Assessment Act 1979</i> and Schedule 2, Part 3, clause 7(1)(e) of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>I certify that I have prepared the contents of this EIS in accordance with the Secretary's Environmental Assessment Requirements (SEARs) (Ref SSD 16-7628) dated 27 May 2016 and amended 24 November 2016, and that to the best of my knowledge, the information contained within this EIS is not false or misleading.</p>
Signature:	
Name:	Westley Owers
Date:	02/12/2016

GLOSSARY

Acronym	Definition
AADT	average annual daily traffic
AAQ NEPM	National Environment Protection (Ambient Air Quality) Measure
ABPP	Australian Bushfire Protection Planners Pty Ltd
ACM	Asbestos containing material
ADG	Australian Code for Transportation of Dangerous Goods by Road and Rail
ADT	average daily traffic
AEP	Annual Exceedance Probability
AIP	Australian Infrastructure Plan (Infrastructure Australia, 2016)
ARTC	Australian Rail Track Corporation
AUD	Australian Dollar
BAR	Biodiversity Assessment Report
BOS	Biodiversity Offset Strategy
BPR	Best Practice Review
CAQMP	Construction Air Quality Management sub-plan
CBD	Central Business District
CBNTCAC	Cubbitch Barta Native Title Claimants Aboriginal Corporation
CCC	Campbelltown City Council
CEMP	Construction Environmental Management Plan
CEP	Community Engagement Plan
CFFMP	Construction Flora and Fauna Management sub-plan
CHMP	Construction Heritage Management sub-plan
CLM Act	<i>Contaminated Land Management Act 1997</i>
CLMP	Contaminated Land Management sub-plan
CNVMP	Construction Noise and Vibration Management Plan
CO	Carbon Monoxide
COPC	Chemicals of Potential Concern
CORTN	Calculation of Road Traffic Noise

Acronym	Definition
CTIA	Construction Traffic Impact Assessment
CTMP	Construction Traffic Management Plan
CZMP	Coastal Zone Management Plan
DAs	Development Applications
DACHA	Darug Aboriginal Cultural Heritage Assessments
DALI	Darug Aboriginal Landcare Incorporated
dBA	decibel
DCAC	Darug Custodian Aboriginal Corporation
DCP	Development Control Plan
DECCW	Department of Environment, Climate Change and Water
DJLU	Defence Joint Logistics Unit
DLO	Darug Land Observations
DoEE	Commonwealth Department of Environment and Energy
ECP	empty container park
EDD	Explosive Detection Dog
EMS	Environmental Management System
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
ENM	Excavated Natural Material
EOW	Explosive Ordnance Waste
EPA	Environmental Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regs	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPIs	Environmental Planning Instruments
EPL	Environmental Protection Licence
ERA	Environmental Risk Analysis
ERP	Emergency Response Plan
ESCP	Erosion and Sediment Control Plan
FBA	Framework for Biodiversity Assessment
FERP	Flood Emergency Response Plan

Acronym	Definition
FFMP	Flora and Fauna Management Plan
FIAB	Freight Infrastructure Advisory Board
GHG	Greenhouse gas
GHS	Globally Harmonised System
GLALC	Gandangara Local Aboriginal Land Council
GMA	Greater Metropolitan Area
GP	Gross Pollutants
GWP	Global warming potential
HQ	Hazard Quotient
HRA	Health Risk Assessment
ICNG	Interim Construction Noise Guidelines
INP	Industrial Noise Policy
IPCC	Intergovernmental Panel on Climate Change
KPI	key performance indicator
ISEPP	State Environmental Planning Policy (Infrastructure)
LALC	Local Aboriginal Land Council
LCC	Liverpool City Council
LEPs	Local Environmental Management Plan
LGA	Local Government Area
LLEP	<i>Liverpool Local Environment Plan 2008</i>
LMARI	Liverpool Moorebank Arterial Road Investigations
LNG	Liquefied Natural Gas
LoS	Level of Service
LPT	Liquefied Petroleum Gas
LTEMP	Long-Term Environmental Management Plan
MNES	Matters of National Environmental Significance
Mt	mega-tonnes
MUR	Moorebank Units Relocation
NGA	National Greenhouse Accounts
NML	Noise Management Levels
NO ₂	Nitrogen Dioxide
NOA	Naturally occurring asbestos
NOHC	Navin Officer Heritage Consultants

Acronym	Definition
NW Act	<i>Noxious Weed Act 1993</i>
OEH	Office of Environment and Heritage
OEMP	Operational Environment Management Plan
OOH	Out of Hours
OSD	On-site detention
OTMP	Operational Traffic Management Plan
OTTIA	Operational Traffic and Transport Impact Assessment
PAC	Planning Assessment Commission
PAD	Potential Archaeological Deposits
PCEMP	Preliminary Construction Environmental Management Plan
PCT	Plant Community Type
PCTMP	Preliminary Construction Traffic Management Plan
PFAS	Perfluoroalkyl and Polyfluoroalkyl
PHA	Preliminary Hazard Assessment
PIRMP	Pollution Incident Response Management Plan
PM	Particulate matter
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
POTMP	Preliminary Operational Traffic Management Plan
PPE	Personal Protective Equipment
PRA	Preliminary Risk Assessment
RAE	Royal Australian Engineers
RAP	Remediation Action Plan
RAPs	Registered Aboriginal Parties
RBLs	Rating Background Levels
REP	Regional Environmental Plan
RFS	Rural Fire Service
RING	Rail Infrastructure Noise Guideline
RNP	Road Noise Policy
SEPP	<i>State Environmental Planning Policy</i>
SEPP 33	<i>State Environmental Planning Policy No 33 – Hazardous and Offensive Development</i>

Acronym	Definition
SEPP 55	<i>State Environmental Planning Policy No 55 – Remediation of Land</i>
PP 64	<i>State Environmental Planning Policy No 64 – Advertising and Signage</i>
SF6	Sulfur hexafluoride
SME	School of Military Engineering
SO ₂	Sulfur Dioxide
SSFL	Southern Sydney Freight Line
SSI	State Significant Infrastructure
SWL	Sound Power Level
SWMP	Soil and Water Management Plan
SWSLHD	South Western Sydney Local Health District
TCE	Trichloroethylene
TEC	Threatened Ecological Communities
tCO ₂ -e	tonnes of carbon dioxide equivalents
TCS Act	<i>Threatened Species Conservation Act 1995</i>
TLALC	Tharawal Local Aboriginal Land Council
TN	Total Nitrogen
TP	Total Phosphorus
TSP	Total Suspended Particulate matter
TSS	Total Suspended Solids
USTs	Underground storage tanks
UXO	Unexploded ordnance
VENM	Virgin Excavated Natural Material
VMS	Variable Message Signs
VPA	Voluntary Planning Agreement
WHO	World Health Organisation
WM Act	<i>Water Management Act 2000</i>
WSUD	Water Sensitive Urban Design
WWI	World War 1
WWII	World War 2

EIS SUMMARY

Introduction

Concept Plan Approval (MP 10_0193) for an intermodal terminal (IMT) facility at Moorebank, NSW (the Moorebank Precinct East Project (MPE Project) (formerly the SIMTA Project)) was received on 29 September 2014 from the NSW Department of Planning and Environment (DP&E). The Concept Plan for the MPE Project involves the development of an IMT, including a rail link to the Southern Sydney Freight Line (SSFL) within the Rail Corridor, warehouse and distribution facilities with ancillary offices, a freight village (ancillary site and operational services), stormwater, landscaping, servicing, associated works on the eastern side of Moorebank Avenue, Moorebank, and construction or operation of any part of the project, which is subject to separate approval(s) under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This Environmental Impact Statement (EIS) is seeking approval, under Part 4, Division 4.1 of the EP&A Act, for the construction and operation of Stage 2 of the MPE Project (herein referred to as the Proposal) under the MPE Concept Plan Approval for the MPE Project, being the construction and operation of warehouse and distribution facilities (refer to Section 1.2 for more information).

This EIS has been prepared to address:

- The Secretary's Environmental Assessment Requirements (SEARs) (SSD 16-7628) for the Proposal, issued by NSW DP&E on 27 May 2016 and amended on 24 November 2016 (refer to Appendix A of this EIS) (herein referred to as the SEARs).
- The relevant requirements of the MPE Concept Plan Approval MP 10_0913 dated 29 September 2014 (as modified) (refer to Appendix A of this EIS).
- The relevant requirements of the approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (No. 2011/6229, granted in March 2014 by the Commonwealth Department of the Environment (DoE)) (as relevant) (refer to Appendix A of this EIS).

This EIS also gives consideration to the MPE Stage 1 Project (SSD 14-6766) including the mitigation measures and conditions of consent as relevant to this Proposal.

This EIS has been prepared to provide a complete assessment of the potential environmental impacts associated with the construction and operation of the Proposal. This EIS proposes measures to mitigate these environmental impacts and reduce any unreasonable impacts on the environment and surrounding community.

Site description

The MPE site, including the Proposal site, is located approximately 27 km south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany (refer to Figure 2 1). The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

The MPE site is located approximately 800 m south of the intersection of Moorebank Avenue and the M5 Motorway. The M5 Motorway provides the main road link between the MPE site, and the key employment and industrial areas within Sydney's West and South-Western subregions, the Sydney orbital network and the National Road Network. The M5 connects with the M7 Motorway to the west, providing access to the Greater Metropolitan Region and NSW road network. Similarly, the M5 Motorway is the principal connection to Sydney's north and north-east via the Hume Highway.

Until recently, the MPE site was operating as the Defence National Storage and Distribution Centre (DNSDC); however, the Department of Defence have vacated the site and relocated this operation to the Defence Joint Logistics Unit (DJLU), immediately north of the MPE site.

The majority of land surrounding the MPE site is owned and operated by the Commonwealth and comprises:

- The MPW site, formerly the School of Military Engineering (SME), on the western side of Moorebank Avenue directly adjacent to the MPE site
- The Holsworthy Military Reserve, to the south of the MPE site on the southern side of the East Hills Rail Corridor, which is owned and operated by Sydney Trains.
- Residual Commonwealth Land (known as the Boot Land), to the east of the MPE site between the site boundary and the Wattle Grove residential area.

The Proposal site encompasses the following:

- Stage 2 site - the area of land which primarily relates to the part of the SIMTA site, on which warehousing and a freight village is to be developed, and some surrounding areas, on which ancillary drainage development is to be developed.
- Moorebank Avenue site - The area of land which includes part of Moorebank Avenue, on which the Moorebank Avenue upgrade is to be developed, and the MPW site, on which the associated OSD is to be developed.

A number of residential suburbs are located in proximity to the Proposal site, including:

Suburb	Distance to MPE Stage 2 site	Distance to Moorebank Avenue site
Wattle Grove	360 m to the north-east	865 m to the north-east
Moorebank	1300 m to the north	1430 m to the north
Casula	820 m to the west	760 m to the west
Glenfield	1830 m to the south-west	1540 m to the south-west

The MPE site is located near a number of significant industrial areas, including: Moorebank and Warwick Farm to the north, Chipping Norton to the north-east, Prestons to the west and Glenfield and Ingleburn to the south-west. The industrial area at Moorebank is the closest industrial precinct to the Proposal, comprising around 200 hectares of industrial development, the majority of which is located to the north of the M5 South West between Newbridge Road, the Georges River and Anzac Creek. The Moorebank Industrial Area supports a range of industrial and commercial uses, including freight and logistics, heavy and light manufacturing, offices and business park developments including the Goodman MFive Business Park.

The Applicant and Capital Investment Value

The Proponent for the Proposal is the Sydney Intermodal Terminal Alliance (SIMTA), who has national experience in logistics delivery, property management, and a strong commitment to stakeholder engagement. Collectively, the SIMTA members currently own and/or operate eight IMT facilities across Australia.

SIMTA will assume responsibility for the delivery of the development, including all future planning applications, the construction of the precinct and the ongoing operations and maintenance of the project.

The capital investment value for the Proposal, consistent with the definition provided in the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation), is approximately \$454 million Australian Dollars (AUD) (excluding GST) (refer to the Quantity Surveyor's Report prepared by Rider Levett Bucknall (Appendix B).

Proposal objectives

The key objectives of the MPE Project are identified in the MPE Concept Plan Environmental Assessment (EA). The key objectives of the Proposal as part of the MPE Project, are to deliver an IMT facility which will:

- Be strategically located to utilise existing and future metropolitan, State and National rail freight and road networks, including the SSFL and the M5 and M7 Motorways
- Provide capacity for an annual throughput of up to 500,000 TEUs, as an initial step to meeting the forecast demand of approximately 1,000,000 TEU for Western and South-Western Sydney
- Make a significant contribution to achieving Federal and State land use, freight and logistics policies, including the State Plan target of increasing the proportion of container freight being transported by rail
- Assist with alleviating freight-related road congestion between Port Botany and Moorebank, particularly along the M5 Motorway
- Be appropriately designed and managed to provide operational efficiencies and to appropriately mitigate impacts on the surrounding environment and local community
- Provide freight distribution opportunities in a strategically appropriate location, and in turn, provide employment opportunities and associated economic and social benefits in Western and South-Western Sydney.

The Proposal would assist in the delivery of the above overall MPE Project objectives, in particular:

- By increasing the proportion of container freight being transported by rail
- Assisting with alleviating freight related road congestion between Port Botany and Moorebank
- By providing operational efficiencies and mitigating impacts on the environment and community through appropriate design and management
- Through freight distribution opportunities in a strategically appropriate location, which will provide employment opportunities and associated economic and social benefits in Western and South-Western Sydney.

Need for the Proposal

An IMT at Moorebank would respond to Sydney's need for more freight handling capacity and the Proposal is a critical component through the delivery of warehousing that will optimise operation of the IMT and thus enable more containerised freight to be moved by rail.

Projected growth in trade volumes will lead to an increase in freight movements interstate, intrastate and across the Sydney Greater Metropolitan Area. This will pose substantial challenges for the supply chain which is currently dominated by road transport. To meet these challenges and to allow for increased use of rail, it is considered necessary to invest in new IMT capacity and associated warehousing and distribution facilities at locations accessible to freight rail lines.

From a strategic perspective, the introduction of the MPE Project (and the Proposal) would result in wider regional and interstate benefits including:

- Economic benefits: The unit costs of transporting containers by rail would be reduced, thereby increasing the share of freight movements by rail. This would improve productivity, reduce operating costs, increase reliability, reduce costs associated with road damage, congestion and accidents, and lead to better environmental outcomes. The Proposal would increase operational and cost efficiencies for the handling, storage and distribution of freight
- Job creation: The Proposal would result in the creation of approximately 200 construction employment opportunities during the peak construction period of the Proposal and 1,408 full time equivalent staff for the operation of the warehousing area
- Improved environmental outcomes by contributing to reducing road congestion: the introduction of an IMT at Moorebank would result in fewer truck journeys every day (to and from Port Botany), resulting in reductions in greenhouse gas emissions, fuel consumption and other air pollution and potential increases in road network performance around Port Botany
- Social benefits through reducing road traffic and associated noise along key road freight routes between Moorebank and Port Botany
- Easing the Port Botany bottleneck to enable the Port to more effectively cope with future growth in container trade and provide large scale freight capacity.

The Proposal, which includes the construction of warehouse and distribution facilities to support an IMT at Moorebank, would provide freight distribution functionality from the IMT, thereby minimising the need for heavy vehicles to travel to Port Botany and contributing to improving road congestion. By including warehouses and distribution facilities at the same location as the IMT would contribute to providing additional capacity on the freight transport network, thereby maximising the capacity of Port Botany and encouraging more efficient business operations.

Proposal alternatives

Consideration was given to a number of alternatives as part of the approach and design development for the Proposal.

The feasible alternatives considered for the Proposal, include:

- 'Do nothing' option: this option was rejected on account of not improving freight transit for outward or inward bound freight movements between Port Botany and South West and Western Sydney, interstate or intrastate. Similarly, it would not deliver any improvements to general transit conditions on the M5 Motorway or reductions in greenhouse gas emissions from diesel trucks between Moorebank and Port Botany. Furthermore, it would not provide temporary and long-term employment opportunities within the region

- Consideration of other alternative sites: a number of alternate sites were considered as part of the MPE Concept Plan Approval. The assessment found the MPE Project presents an ideal location for the proposed facility in south-western Sydney due to the following factors:
 - It is adjacent to existing industrial areas, and is in a central location relative to major freight markets in the west and south west of Sydney
 - It is zoned as industrial land for use as industrial warehousing
 - It is located near to the South West Growth Centre
 - It is in proximity to major road (M5 Motorway, M7 Motorway and Hume Highway) and rail freight corridors (SSFL), a dedicated freight rail line providing a direct link to the interstate freight network and a direct link to Port Botany
 - There is a direct intersection linking the adjacent Moorebank Avenue to the M5 Motorway
 - Buffer zones are provided between the facility and nearby residential areas
 - It is within the catchment for which there is a demand, resulting in minimal use of road transport between origins/destinations and the IMT
 - It is located a sufficient distance from Port Botany to make rail a commercially viable alternative to road for movements to and from Port Botany
 - It is large enough to handle the number of containers expected and has the space required for the associated warehousing, which will increase the efficiency of the freight service offered and therefore increases the attractiveness of the terminal and its potential to get more freight onto the rail network.
 - The location has also been identified in both state and federal strategic planning and policy documents (refer to Section 3.1) as the best, and only location for an IMT and associated warehousing to service a defined catchment in South-Western Sydney.
- Refining design for the Proposal site layout and operations: since the MPE Concept Plan Approval and EPBC Approval, a number of design refinements have been made to the Proposal. Design changes have been made in response to advice and consultation with government authorities, service providers and the community, as well as additional data from more detailed environmental and social investigations. Where a refinement was likely to have wider implications, or where a range of constraints and alternatives was considered, design refinements were identified in the context of environmental considerations.

Proposal description

The Proposal involves the construction and operation of Stage 2 of the MPE Project, comprising warehousing and distribution facilities on the MPE site and upgrades to approximately 1.4 kilometres of Moorebank Avenue between the northern MPE site boundary and 120 metres south of the southern MPE site boundary.

Key components of the Proposal include:

- Warehousing comprising approximately 300,000m² GFA and additional ancillary offices
- A freight village, comprising 8,000m² GFA of retail, commercial and light industrial land uses
- Establishment of an internal road network, and connection of the Proposal to the surrounding public road network

- Ancillary supporting infrastructure within the Proposal site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation and installation
 - Vegetation clearing, remediation, earthworks, signage and landscaping
- Subdivision of the MPE Stage 2 site
- The Moorebank Avenue upgrade would be comprised of the following key components:
 - Modifications to the existing lane configuration, including some widening
 - Earthworks, including construction of embankments and tie-ins to existing Moorebank Avenue road level at the Proposal's southern and northern extents
 - Raking of the existing pavement and installation of new road pavement
 - Establishment of temporary drainage infrastructure, including temporary basins and / or swales
 - Raising the vertical alignment by about two metres from the existing levels, including kerbs, gutters and a sealed shoulder
 - Signalling and intersection works
- Upgrading existing intersections along Moorebank Avenue, including:
 - Moorebank Avenue / MPE Stage 2 access
 - Moorebank Avenue / MPE Stage 1 northern access
 - Moorebank Avenue / MPE Stage 2 central access
 - MPW Northern Access / MPE Stage 2 southern emergency access

The Proposal would interact with the MPE Stage 1 Project (SSD_6766) via the transfer of containers between the MPE Stage 1 IMT and the Proposal's warehousing and distribution facilities. This transfer of freight would be via a fleet of heavy vehicles capable of being loaded with containers and owned by SIMTA. The fleet of vehicles would be stored and used on the MPE Stage 2 site, but registered and suitable for on-road use. The Proposal is expected to operate 24 hours a day, seven days per week. An overview of the Proposal is shown in Figure 0-1.

The construction period for the Proposal is anticipated to be approximately 24-36 months and would commence towards the final stages of construction of the MPE Stage 1 Project. Construction of the Proposal is expected to be undertaken in seven broad construction works periods:

- Works period A: Pre-construction activities
- Works period B: Site preparation activities
- Works period C: Construction of the Moorebank Avenue diversion road
- Works period D: Pavement and intersection works along Moorebank Avenue
- Works period E: Bulk earthworks, drainage and utilities
- Works period F: Construction and internal fit-out of warehousing
- Works period G: Miscellaneous construction and finishing works.

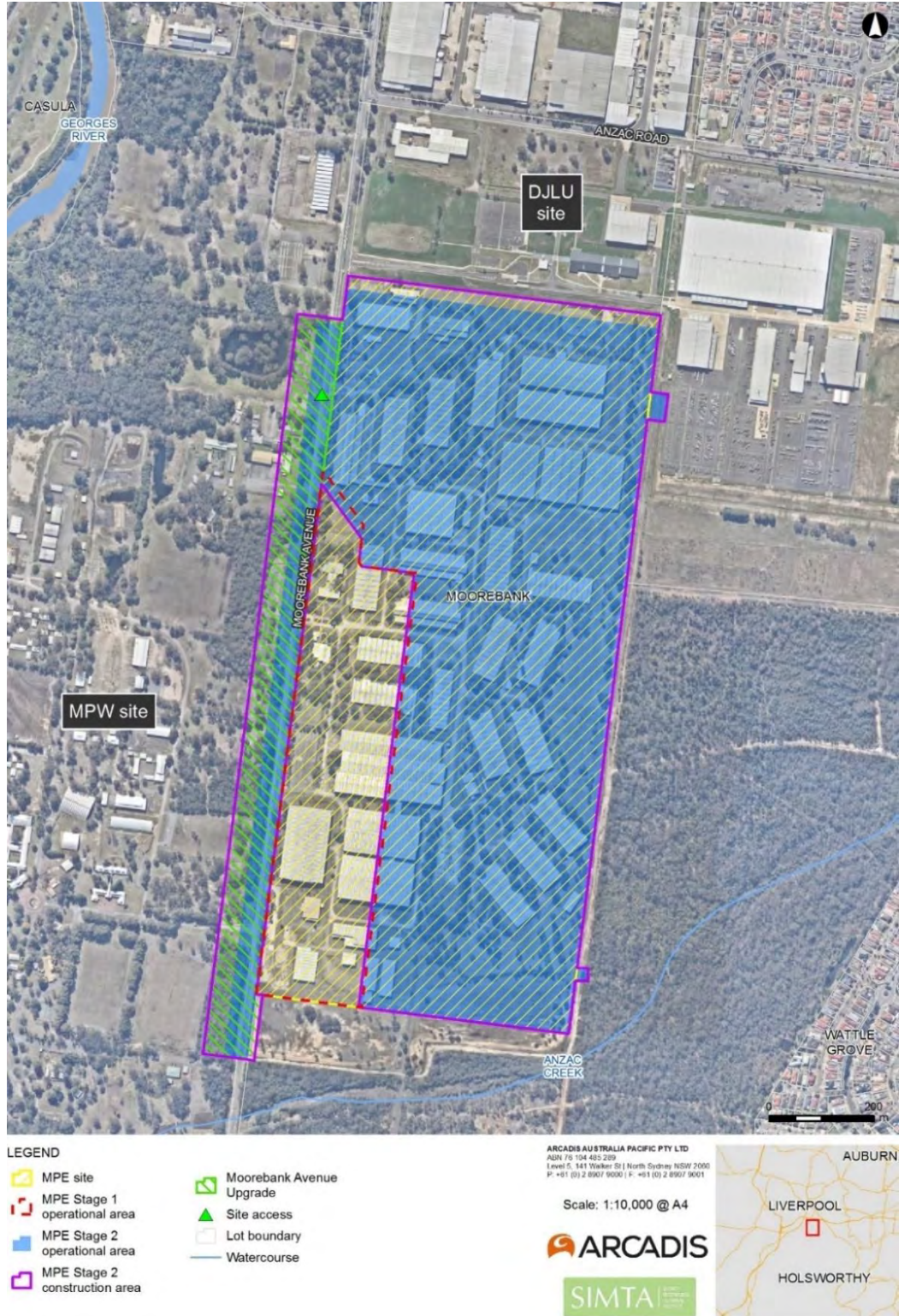


Figure E-1 Proposal overview

Statutory planning approvals process

On 9 November 2010, the MPE Project was declared by the then Minister for Planning to be a development of a type that is described in Schedule 1, Group 8, clause 23 of *State Environmental Planning Policy (Major Development) 2005* and, as such, was to be assessed under the provisions of Part 3A of the EP&A Act (now repealed) for the purposes of Section 75B of the Act. At the same time, the then Minister for Planning authorised the submission of a Concept Plan for the MPE Project under Section 75M(1) of the EP&A Act (now repealed). Transitional arrangements for Part 3A projects under Schedule 6A of the EP&A Act continue to apply to the MPE Project and this Proposal¹.

MPE Concept Plan Approval was granted on 29 September 2014 by the PAC as delegate to the Minister for Planning. The MPE Concept Plan Approval, under Part 3A, Section 75O of the EP&A Act is for:

“use of the site [Project site] as an intermodal facility, including a rail link to the Southern Sydney Freight Line within an identified rail corridor, warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works”.

The MPE Concept Plan Approval Conditions of Approval require the construction or operation of any part of the MPE Project to be subject to separate development consent under the EP&A Act. The MPE Concept Plan Approval states that approval to carry out the MPE Project is subject to the provisions of Part 4, Division 4.1 of the EP&A Act, and any environmental assessment would be carried out in accordance with the future environmental assessment requirements, specified in Part 2 of Schedule 3 of the MPE Concept Plan Approval Conditions of Approval.

In addition, Section 8(1) of the State and Regional Development SEPP states that;

‘Development is declared to be State significant development for the purposes of the Act if:

- (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.’*

Clause 12(1) of Schedule 1 of the State and Regional Development SEPP states that development for the purposes of warehouses or distribution centres is considered to be State significant if ‘Development has a capital investment value of more than \$50 million for the purpose of warehouse or distribution centres (including container storage facilities) at one location and related to the same operation’.

As the capital investment value of the Proposal is estimated to be approximately \$454 million AUD (excluding GST), the Proposal would exceed the \$50 million AUD threshold prescribed in clause 12(1) of Schedule 1 of the State and Regional Development SEPP, and would be for the purpose of warehouses or distribution centres, the Proposal is declared to be SSD under the State and Regional Development SEPP.

In accordance with the MPE Concept Plan Approval (as modified), development consent is sought for the Proposal under Part 4, Division 4.1 of the EP&A Act.

¹ Part 3A of the EP&A Act was repealed on 31 October 2011. Transitional arrangements for projects (including concept plans) approved under Part 3A of the EP&A Act before its repeal are provided in Schedule 6A of the EP&A Act.

Consultation

SIMTA and its' consultants have undertaken on-going consultation with government agencies, key stakeholders and the community throughout the preparation of the MPE Concept Plan for the MPE Project. The consultation undertaken previously has been a key consideration for the design, construction and operation of the Proposal.

SIMTA has continued this consultation with key stakeholders and agencies as part of the preparation of the EIS for the Proposal and in accordance with the SEARs. SIMTA has consulted with statutory agencies and stakeholders throughout the preparation of this EIS including:

- Local (e.g. Liverpool City Council and Campbelltown City Council), State (e.g. Department of Primary Industries, Office of Environment and Heritage and the Environment Protection Agency) and Commonwealth government authorities (e.g. Commonwealth Department of the Environment and Energy)
- Service and infrastructure providers (e.g. Roads and Maritime Services)
- Specialist interest groups, including Local Aboriginal Land Councils
- The public, including community groups and adjoining and affected landowners.

This consultation has been undertaken through a range of mediums including emails, phone conversations, face-to-face meetings, workshops and letter submissions.

Feedback provided from stakeholders and the community has assisted with Proposal design modifications and the approach for impact assessments documented in this EIS.

This EIS will be placed on public exhibition in accordance with Section 89F of the EP&A Act. This exhibition period would provide an opportunity for all stakeholders to comment on the Proposal. On completion of the public exhibition period SIMTA would be provided, by DP&E, the submissions received for the Proposal.

Community consultation will continue as an integral component of the Proposal's development process to ensure the views of stakeholders and the community are clearly understood and considered to the fullest extent practicable. SIMTA will consider feedback from stakeholders and the local community during the EIS exhibition process and ongoing phases of project development.

Key environmental issues

The EIS includes an assessment of the Proposal having regard to the key environmental issues identified in the SEARs. Summary findings for key environmental issues are presented below.

Traffic and transport

An assessment of potential construction and operational traffic impacts generated by the Proposal was undertaken by Arcadis (Section 7 and Appendix K of this EIS).

The construction traffic assessment was based on a peak construction period; being the overlap in construction works period D, E and F, which is considered to be representative of a worst case construction traffic generating scenario. During the peak construction period, there would be 1,022 two way truck movements and 428 two way light vehicle movements per day. Fill haulage would generate the largest amount of heavy vehicle movements of all construction activities. During the peak construction period (i.e. concurrent undertaking of construction works periods D, E and F), it is expected that approximately 67 vehicles (all of which are heavy vehicles) would be travelling to and from the Proposal site during the AM peak hour and approximately 169 vehicles (67 trucks and 102 cars) would be travelling to and from the Proposal site during PM peak hour.

During construction of the Proposal, the performance of intersections near the Proposal are expected to generally operate at a level of service similar to the operation of these intersections without construction in 2018. All modelled intersections near the Proposal would operate at an acceptable level of service during the AM and PM peak during peak construction.

A Preliminary Construction Traffic Management Plan (PCTMP) has been prepared to outline traffic management measures that would be adopted, and further considered as part of the preparation and implementation of the Construction Environmental Management Plan (CEMP) and CTMP for construction of the Proposal.

Operation of the Proposal would result in the generation of 564 two-way heavy vehicle movements and 3,993 two-way light vehicle movements each weekday (Monday to Friday). Heavy vehicle trips to and from the Proposal would be made by B-doubles, semi-trailers and rigid trucks. The majority of heavy vehicle movements during operation of the Proposal are anticipated to take place outside of the AM and PM peak periods.

About 56% of heavy vehicle movements generated by the Proposal would travel to the Proposal site via the M5 Motorway from the west. The remainder of traffic travelling to the Proposal site would be via the Hume Highway and Moorebank Avenue from the north of the M5 Motorway. Traffic travelling along Moorebank Avenue would originate from Newbridge Road. In general, all heavy vehicles would travel to and from the Proposal site via Moorebank Avenue. No container trucks would travel to the Proposal site via Anzac Road (east of Yulong Close) or Cambridge Avenue.

The Proposal would result in an increase in traffic volumes along all analysed roads near the Proposal site in 2019. The greatest proportional increase in traffic volumes would be along Moorebank Avenue south of Anzac Road (23%). Approximately 2.5% of heavy vehicle traffic to the north of Anzac Road, and approximately 2.4% of heavy vehicle traffic to along Moorebank Avenue to the south of Anzac Road is attributable to the operation of the Proposal.

Ten years after opening (2029), the Proposal would continue to result in an increase in traffic volumes along all analysed roads near the Proposal site. The greatest proportional increase in traffic volumes would be along Moorebank Avenue south of Anzac Road (19%). Approximately 1.7% of heavy vehicle traffic to the north of Anzac Road, and approximately 2% of heavy vehicle traffic to along Moorebank Avenue to the south of Anzac Road is attributable to the operation of the Proposal.

The proportion of heavy vehicle traffic along key roads attributable to the Proposal in 2029 is lower than what is predicted in 2019 due to increased background traffic growth over the ten year period.

The performance of eight key intersections have been assessed for the operation of the Proposal in 2019 and 2029 during the AM and PM peak, using the SIDRA modelling tool (V.7).

In 2019 during the AM and PM peak, the intersection performance of key intersections in the study area would operate at a similar level of service, with and without the operation of the Proposal. As the LoS at all key intersections is similar in both with and without the Proposal scenarios, during the AM and PM peak in 2019, it can be concluded that no intersection improvements are required to accommodate increases in traffic volumes at these key intersections at the opening year of the Proposal (2019).

In 2029 during the AM peak, the intersection performance of key intersections in the study area would operate at a similar level of service, both with and without the operation of the Proposal.

With the implementation of assumed network upgrades, intersection performance at all key intersections near the Proposal modelled as part of this assessment in 2029 during the PM peak would operate at an acceptable LoS, with the exception of the M5 Motorway / Heathcote Road intersection, which would continue to operate at a LoS F, although the average delay would be reduced. Although this intersection would operate at a LoS F, its performance is no worse than the performance expected in 2029 without the operation of the Proposal in the AM Peak, and is therefore considered acceptable in the context of impacts as a result of the Proposal.

Overall, it is concluded that the Proposal (and cumulative scenario including the Proposal) would result in only marginal traffic impacts to the surrounding road network in the presence of mitigation and management measures.

Network improvements are required to mitigate the impacts of the cumulative operational scenario at key intersections within the study area, and these are either directly as a result of the cumulative development scenario, or to cater for background traffic growth.

As these upgrades are not directly a result of the Proposal, they have been nominated as assumed network upgrades and adopted to complete the modelling for the operational traffic and transport impact assessment

- Moorebank Avenue/Anzac Road
- M5 Motorway / Moorebank Avenue
- M5 Motorway / Hume Highway
- Moorebank Avenue / Newbridge Road
- Moorebank Avenue / Heathcote Road
- M5 Motorway / Heathcote Road.

A Preliminary Operational Traffic Management Plan (POTMP) has been prepared to identify the management strategies to minimise traffic impacts associated with operation of the facility and would be finalised prior to operation of the Proposal.

Noise and vibration

A Noise and Vibration Assessment was prepared by Wilkinson Murray (2016) (Appendix N of this EIS) to assess the potential noise and vibration impacts arising from the construction and operation of the Proposal.

Potential noise and vibration impacts were assessed in general accordance with the following NSW Government guidelines and policies:

- NSW Industrial Noise Policy (INP) (EPA, 2000)
- NSW Road Noise Policy (RNP) (DECCW, 2011)
- Interim Construction Noise Guideline (ICNG) (DECC, 2009)
- Assessing Vibration: a technical guide (Assessing Vibration) (DEC, 2006).

This assessment considered each works period for the construction phase and determined that the construction noise emissions are expected to comply with the established Noise Management Levels (NML) at all sensitive receivers during standard construction hours. Construction noise levels during all proposed out of hours works periods are predicted to comply with the NML at all times, with the exception of Wattle Grove, where construction noise levels during out of hours periods (i.e. 6pm-10pm weekdays; 7am-8am Saturday; and 1pm-6pm Saturday) are predicted to exceed the NML by 1 dBA. This exceedance is considered negligible and does not warrant mitigation.

Cumulative construction noise levels due to concurrent activities associated MPE Stage 1, MPW Stage 2 and the Proposal are predicted to comply with the NMLs at all receivers, with the exception of Casula, which exceeds the NML at the most affected residential receivers by up to 2 dBA. This is considered a negligible exceedance that does not warrant mitigation.

The assessment also concluded that given the substantial setback distances to nearby receivers, construction vibration impacts are considered unlikely.

The Noise and Vibration Assessment also determined that the operational levels from the Proposal would comply with the relevant criteria, including relevant sleep disturbance goals, except at the most affected receivers in Wattle Grove where exceedances of the established screening criterion for sleep disturbance by 1 dB are anticipated, under adverse meteorological conditions only. However, a 1 dB exceedance is considered negligible and therefore does not require mitigation. Additionally, cumulative noise levels due to the concurrent operation of the Proposal and the MPE Stage 1 and MPW Stage 2 Projects are predicted to comply with the established criteria.

An assessment of road noise was undertaken in accordance with the RNP criteria and using the Calculation of Road Traffic Noise (CORTN) algorithm. The assessment concluded that increases in road traffic noise as a result of construction and operation of the Proposal are considerably less than 2 dBA and are therefore compliant with the RNP.

A Construction Noise and Vibration Management Plan (CNVMP) would be developed for the Proposal, considering all reasonable and feasible measures to reduce noise levels at sensitive receivers.

Air quality

An Air Quality Impact Assessment was prepared by Ramboll Environ (2016) (Appendix M of this EIS) to assess the potential air quality impacts arising from the construction and operation of the Proposal. Key emissions considered for the construction of the Proposal are fugitive dust or particulate matter (PM) generated during demolition, site clearing and earthworks activities. These impacts can be effectively controlled through the implementation of standard control measures, including the use of water carts along unsealed pavement areas and during other particulate emission generating construction activities. The Air Quality Management Plan, included in the Air Quality Impact Assessment would be further progressed and incorporated into the CEMP for the Proposal.

Emissions to air associated with operation of the Proposal were calculated for the key air pollutants associated with the combustion of diesel and other fossil fuels, being:

- Particulate matter (TSP, PM₁₀ and PM_{2.5})
- Nitrogen oxides (NO_x)
- Sulfur dioxide (SO₂)
- Carbon monoxide (CO)
- Speciated HC / Volatile organic compounds (VOCs) – benzene, 1,3-butadiene and PAHs.

The modelling results indicated that the construction phase emissions would comply with all relevant impact assessment criteria. The predicted increase in annual average PM₁₀, PM_{2.5}, Total Suspended Particulate matter (TSP) and dust deposition are considered minor, when compared against existing background conditions. Cumulative predictions are also presented and the results indicate that the construction for the Proposal would result in no additional days over the criteria.

For the operational phase of the Proposal the maximum increase in PM₁₀ and PM_{2.5} is minor when compared to existing background conditions. When background is added, there are no additional exceedances of the short term impact assessment criteria. The annual average background concentrations of PM_{2.5} already exceed the NEPM reporting standard, therefore cumulative predictions are also above the standard at all receptors. It is noted, however, that despite the existing exceedance of the annual average background concentration, the Proposal results in a relatively minor additional increase in annual average PM_{2.5} (<0.1 µg/m³ at all sensitive receptors). The predicted NO₂, CO, SO₂ and VOC concentrations are well below the relevant impact assessment criteria.

Measures to further mitigate air quality impacts would be implemented as per the Air Quality Management Plan, included in the Air Quality Impact Assessment (Appendix M of this EIS), and would be integrated into the OEMP. The following key measures would be included in the OEMP:

- Implementation and communication of anti-idling policy for trucks
- Complaints line for the community to report on excessive idling and smoky vehicles
- Procedures to reject excessively smoky trucks visiting the site based on visual inspection.

Human health

A Health Risk Assessment (HRA) was prepared by Ramboll Environ (2016) (Appendix N of this EIS) to assess potential health risks posed by the air and noise emissions on the surrounding community arising from the construction and operation of the Proposal.

The HRA was undertaken in accordance with approved Australian guidance for performing risk assessments, including:

- Environmental Health Risk Assessment: Guidelines for Assessing Human Health Risks from Environmental Hazards (enHealth, 2012a)
- Exposure Factors Guide (enHealth, 2012b)
- National Health and Medical Research Council. Approach to Hazard Assessment for Air Quality (NHMRC, 2006)
- Methodology for Setting Air Quality Standards in Australia (National Environment Protection Council, 2011).

The focus of the air quality HRA was on the health impacts of emissions from the operation of the Proposal. The key air pollutants evaluated in the local air quality assessment were considered as chemicals of potential concern (COPCs) and inhalation of air was the only exposure pathway evaluated. The air quality HRA evaluated a range of health endpoints associated with the key air pollutants, including increases in mortality and morbidity as well as excess lifetime cancer risks.

The results of the HRA found that the increase in risk due to air pollution from the operation of the Proposal are low or negligible. The cancer risk from the air toxins are well below acceptable risk levels set by international agencies. The implementation of best practice measures as outlined in the Air Quality Best Practice Review (Appendix M of this EIS) would lead to further reductions in air pollution levels and the associated health risks.

The noise HRA has investigated the impact of noise from operation of the Proposal on sleep disturbance, annoyance and cognitive impairment using the World Health Organisation (WHO) community noise guidelines. The noise from both operation of the Proposal and cumulative assessment scenario meets the WHO community noise guidelines at all residential receivers and does not pose an unacceptable risk to the health of nearby communities.

A Hazard Quotient (HQ) greater than 1 was predicted for annoyance and cognitive impairment at the nearest industrial receivers, although the HQs for existing ambient noise already exceed 1 for annoyance and cognitive impairment at these receivers and therefore the Proposal related noise is expected to have minimal additional impact on the local residential area. With the implementation of the best practice measures outlined in the Noise and Vibration Impact Assessment (Appendix L of this EIS), any potential noise related impacts would be minimised and as a result the risk to health of the local community would be low.

Biodiversity

A Biodiversity Assessment Report (BAR) was prepared for the Proposal in accordance with OEHS's *Framework for Biodiversity Assessment (FBA)* under the *NSW Biodiversity Offsets Policy for Major Projects* published in October 2014 (Appendix O of this EIS). The BAR identified impacts to two threatened ecological communities (TECs) listed under the *Threatened Species Conservation Act 1995 (TSC Act)* and/or *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)* associated with the following Plant Community Types (PCTs) in the Proposal site.

Table E-1 Impacted plant community types

Plant Community Type	Equivalent TEC	Conservation status	Impact (ha)
Hard-leaved Scribbly Gum – Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin	Castlereagh Scribbly Gum Woodland in the Sydney Basin bioregion	Vulnerable (TSC Act) Endangered (EPBC Act)	0.1 ha
Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain, Sydney Basin Bioregion	Cooks River – Castlereagh Ironbark Forest in the Sydney Basin Bioregion	Endangered (TSC Act) Critically Endangered (EPBC Act)	0.05 ha

The Proposal will have minimal impact on threatened flora species listed under the TSC Act and EPBC Act. Populations of several threatened plant species have been identified in the Boot Land, to the east and south of the Proposal site. Potential habitat for these species in the Proposal site is poor quality, and subject to fragmentation and/or edge effects. Targeted surveys did not identify any threatened flora species in the Proposal site.

The clearing of vegetation will result in the loss of specific fauna habitat components, including live trees, tree hollows, foraging resources, groundlayer habitats such as ground timber and well-developed leaf litter. These resources offer sheltering, foraging, nesting and roosting habitat to a variety of fauna, including threatened fauna, occurring within the locality. The Proposal will require removal of seven hollow-bearing trees, all of which are located in the Moorebank Avenue road reserve.

The assessment of ecosystem credit species associated with PCTs on the development site found that two threatened fauna species have a high likelihood of occurrence and 11 have a moderate likelihood of occurrence. Given the modified and fragmented nature of fauna habitat in the Proposal site, potential impacts on these species are considered likely to be minimal, and mainly comprise removal of marginal foraging, sheltering and roosting habitat.

Impacts to Groundwater Dependent Ecosystems, habitat connectivity and riparian land resulting from the Proposal are not anticipated to be significant.

Biodiversity-related impacts would be managed through the implementation of a Flora and Fauna Management Plan, included as part of the CEMP and OEMP

Stormwater and flooding

An assessment of the potential stormwater and flooding impacts associated with construction and operation of the Proposal was undertaken by Arcadis (Appendix P of this EIS). The Proposal site is bisected in a north-south direction by a catchment boundary with the eastern portion discharging to Anzac Creek (approximately 50 metres to the southeast of the Proposal site) and the western portion discharging to the Georges River (approximately 450 metres to the west of the Proposal site).

Construction of the Proposal would require vegetation clearing and bulk earthworks, which have the potential to lead to erosion and generate sediment laden runoff into the Georges River or Anzac Creek, thereby impacting water quality. A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP) would be prepared in accordance with the principles and requirements of the Blue Book. The SWMP and ESCP would be implemented during construction, and would include sediment basins positioned generally along the northern, southern and western boundaries of the Proposal site, enabling discharge to Anzac Creek and the Georges River.

Construction of the Proposal, in particular raising of the Proposal site, would have the potential to cause flooding impacts on surrounding properties during a significant rainfall event, in the absence of flood management measures. Flood risk to nearby properties and to the site itself may occur through the failure of existing or temporary water containment measures, or through a rainfall event exceeding that for which the controls for construction activities were designed to protect flood related impacts.

Development of the Proposal would result in changes to the Proposal's catchment boundaries during operations. In addition, the Proposal would result in an increase in surface water generation and pollutant loads as a result of the increase in impervious surfaces on the site. Onsite detention (OSD) in the form of sediment basins, outlet channels and water sensitive urban design (WSUD) elements have been sized to provide adequate system capacities and mitigate potential adverse flood impacts and increases in stormwater discharge from the site that may otherwise result from the Proposal. WSUD measures, including gross pollutant traps and rain gardens, have been included and designed to ensure the quality of stormwater leaving the Proposal site would be of equivalent quality to the existing conditions, or provide an improvement to stormwater quality leaving the site. Maintenance of OSD and WSUD structures, as well as water quality monitoring would be included in the OEMP for the Proposal.

A Flood Emergency Response Plan (FERP) would be developed for the Proposal site. The FERP would take into consideration, site flooding and broader flood emergency response plans for the Georges River and Anzac Creek floodplains and Moorebank area.

Geology, soils and contamination

Geotechnical investigations and contamination reporting have been undertaken by Golder Associates and JBS&G respectively to determine the suitability of the site for the construction and operation of the Proposal and to address the SEARs (refer to Appendix Q of this EIS).

Geotechnical and Soil

The greatest risk to soils on the Proposal site would be during the construction phase of the Proposal, when ground disturbance would be required. Construction of the Proposal would involve disturbance to the Proposal site, resulting in exposure of soils and increasing the risk of erosion. Construction of the Proposal would also involve the importation of approximately 680,000 cubic metres of clean fill to the site to achieve the finished surface levels. Given the large area of disturbance required at the site, there is a high potential for erosion, even though the site has low sloping topography and a low erosion hazard risk.

Groundwater is found at approximately 4 to 7 metres below the existing ground levels across the majority of the Proposal site and is anticipated to be deeper than the expected depth of bulk excavations. Groundwater may also be encountered within excavations undertaken towards the south-eastern corner of the Proposal site (i.e. in proximity to Anzac Creek) for depths greater than approximately 1.5 metres. Should bulk excavation to such depths (or greater) be required in this area, consideration will need to be given to the potential for, and management of, groundwater inflows during construction.

Once constructed, operation of the Proposal would have little impact on soils, as the Proposal site would be stabilised with materials predominantly including hardstand and landscaping, thereby removing the potential for erosion and soil impacts.

Mitigation measures proposed include the following:

- Implementation of a Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP), which would be developed in accordance with the principles and requirements of the Blue Book and would prescribe measures to prevent erosion and sedimentation
- Reuse of excavated material on site where practicable. Any excavated material that requires disposal would be subject to waste classification under the Waste Classification Guidelines 2014 (NSW EPA, 2014) and would be disposed of at an appropriate licensed facility
- Incorporation of the Bulk Earthworks Strategy into the CEMP for the Proposal.

No additional mitigation measures are proposed to mitigate operational impacts on soils.

Contamination

A Section A Site Audit Statement (SAS) and Site Audit Report developed by JBS&G in September 2016 certified that the site was suitable for commercial/industrial use and that further contamination investigations (i.e. a Phase 2 contamination assessment) were not required. The report noted that construction works on the site should be undertaken in accordance with the Environmental Management Plan (EMP) developed for the site (GHD, 2016), including procedures to control exposure to potential human health and environmental receptors from residual contaminated soil, ACM and potential UXO.

Contaminants of potential concern identified on the Proposal site include:

- Metals (Arsenic (As), Cadmium (Cd), chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Zinc (Zn))
- Asbestos
- Total petroleum hydrocarbons (TPH)
- Benzene, toluene, ethylbenzene, xylenes (BTEX)
- Polycyclic aromatic hydrocarbons (PAHs)
- Volatile organic compounds (VOCs)
- Semi-volatile organic compounds (SVOCs)
- Phenols
- Perfluorinated compounds (PFCs)
- Unexploded ordnance (UXO) and exploded ordnance waste (EOW)
- Explosive residues.

There are no specific areas requiring direct remediation within the Proposal site. However, construction of the Proposal would have the potential to release and/or expose existing sources of contamination into the surrounding environment through disturbance of soils and groundwater.

The Proposal site is considered to be suitable for the desired commercial / industrial land use and there are no specific areas requiring direct remediation prior to operation of the Proposal. The risk to workers and the environment from potential contamination existing once the Proposal is operational is considered to be low.

Oils, fuels, lubricants and other chemical substances would be required for vehicles plant and machinery during operation of the Proposal. Five classes of dangerous goods would also be transported to or from, and stored within warehouses on the Proposal site. Accidental spills and leaks within the Proposal site have the potential to result in contaminants being transported into the surrounding environment and groundwater. As the majority of the Proposal site would be hardstand, the potential for the migration of fuels and chemicals to soil and groundwater is considered to be low.

Mitigation measures proposed include the following:

- Development of a Contamination Management Plan (CMP) in accordance with the measures outlined in the SAS, Site Audit Report (SAR) and EMP (GHD, 2016) and incorporated into the CEMP
- Preparation of a site-wide UXO, EO, and EOW management plan (or equivalent)
- Development of an Emergency Response Plan for operation of the Proposal.

Hazard and risk

A Preliminary Risk Screening in accordance with SEPP 33 for the Proposal has been undertaken. Hazards and risks associated with the Proposal may arise from a number of activities including demolition, road logistics, storage of hazardous materials, refuelling, waste disposal and equipment maintenance. Key hazards and risks associated with the Proposal include presence of contamination on site (including asbestos), loss of containment of flammable/combustible or corrosive liquids, fire and explosion, vehicle movements and machinery use, dangerous goods storage and transport and gas leaks.

Key mitigation strategies for management of hazard and risks include:

- A CEMP, including an Incident Response Plan and Spill Management Procedure, would be developed to minimise the likelihood of an incident occurring
- Prior to commencement of construction an Asbestos Management Plan, in accordance with *Code of Practice How to Manage and Control of Asbestos in the Workplace* (WorkCover NSW, 2011), will be developed for the Proposal
- An Operational Hazard and Risk Management Plan would be developed as part of the OEMP, which would adopt (as a minimum) the requirements of the *Code of Practice for Storage and Handling of Dangerous Goods* (WorkCover NSW, 2005).

Visual amenity, urban design and landscape

Reid Campbell has undertaken an assessment of the visual amenity implications, including from light spill, associated with the Proposal. A Landscape Plan has been prepared by Groundlink to identify the landscaping features of the Proposal and is included in Appendix E of this EIS. In addition to this a Visual Impact Assessment (VIA) (Reid Campbell, 2016) and Light Spill Assessment (Arcadis, 2016) (refer to Appendix R of this EIS) have been prepared to assess the potential visual and light spill impacts of the Proposal.

The extensive native bushland areas, Department of Defence facilities on neighbouring lands, the MPW site and the general pattern of industrial type development surrounding the Proposal site screen it from much of the greater sensitive surrounding areas, which are primarily industrial and residential. Furthermore, landscape and urban design features, would further screen the Proposal as well as integrate the Proposal with surrounding land uses, minimising the visual impact.

The construction phase of the Proposal includes a number of temporary structures, including ancillary facilities, offices and equipment etc, which would have short term and temporary impacts on the surrounding streetscape. These temporary structures are likely to be visible from areas such as Moorebank Avenue, the nearby passenger rail lines and potentially nearby residential areas of Casula and Wattle Grove. Any visual impacts would be localised and temporary in nature. Notwithstanding this a number of actions would be considered during the construction of the Proposal to further reduce the visual impacts on the surrounding area.

Lighting would be required during construction of the Proposal within ancillary facilities, and on plant and equipment. The impacts of light spill during construction are expected to be minor as it would be localised and temporary in nature. In addition, this lighting would be designed and located to minimise the effects of light spill on surrounding sensitive receivers.

The Proposal would generally be in keeping with the existing character of the area. Some relatively high and/or bulky structures/equipment may however increase the visibility of the Proposal site beyond its current levels, with some limited and highly localised visual impacts. Potential views would occur along viewing corridors created by Moorebank Avenue and where topography provides some elevation above potential obstructions to views, such as from Casula to the west.

Overall, the Proposal is in keeping with the surrounding land uses and any impacts would be effectively minimised through the use of landscaping and urban design, the maximum anticipated visual impact at any view point would be Moderate. The proposed landscape and built form treatments would result in an improvement in the visual amenity of the entire site and would increase the current level of screening of the site. Urban design and planning principles would assist with the breakdown of the bulk and scale of the development.

In addition, the Proposal would result in minimal effect on adjacent properties and on the environment through the appropriate selection of light source, luminaire, luminaire mounting height and luminaire aiming for operational lighting.

Indigenous heritage

Artefact prepared an Aboriginal Heritage Impact Assessment to determine the potential impacts of the Proposal on Indigenous heritage significance (refer to Appendix S of this EIS).

The Proposal site has been assessed as highly disturbed and modified and as such it is highly unlikely that intact unidentified archaeological deposits will occur in the area or be unearthed as a result of the construction activities. There were no areas of potential archaeological deposits (PAD) identified within the Proposal site and overall the site is considered to have low to nil potential to contain intact archaeological deposits. The Proposal would not impact any areas of archaeological potential or any Aboriginal sites of high, moderate or unknown archaeological and cultural significance.

No impacts to Indigenous heritage were identified for the operational phase of the Proposal.

Further, two indigenous artefacts are located within the Proposal site and one artefact is located immediately adjacent to the south of the Proposal site. An exclusion zone would be provided around these artefacts, thereby avoiding any disturbance during construction of the Proposal.

Mitigation measures proposed include the establishment of exclusion zones around the identified artefacts on site and the implementation of an unexpected find procedure.

Non-Indigenous Heritage

Artefact prepared a Non-Indigenous Heritage Impact Assessment to determine the potential impacts of the Proposal on non-Indigenous heritage (refer to Appendix T of this EIS).

The construction and operation of the Proposal would result in a number of direct and indirect impacts to non-Indigenous heritage, including:

- The removal of all heritage values from the former DNSDC site and the loss of its heritage significance.
- More specifically, direct impacts to 15 WWII era store buildings
- The removal of original roads and open drain alignments running through the Proposal site
- Impacts to potential archaeological material associated within former structures located within the Proposal site
- Impacts to underground water mains and sewerage lines within the Proposal site
- Impacts to the curtilage of the SME site to the west
- Some cumulative visual impacts of the Proposal with the MPW and MPE Stage 1 Projects on heritage view sheds to and from Glenfield Farm, which is considered in the Visual Amenity, Urban Design and Landscape Report prepared for the Proposal (refer to Appendix T of this EIS).

Mitigation measures proposed include:

- Preparation of a Heritage Management Plan as part of the CEMP
- Archival monitoring and recording at select locations within the DNSDC site
- Archaeological monitoring and recording
- Preparation of a Heritage Interpretation Strategy prior to commencement of construction activities
- An Unanticipated Discoveries Protocol, which would be followed in the event that historical items or relics or suspected burials are encountered during excavation works.
- Landscaping around the MPE site, which will mitigate potential visual and noise impacts for the SME site and Glenfield Farm (as detailed in Appendix T of this EIS)

Greenhouse Gas and Climate Change

A greenhouse gas (GHG) and climate change risk assessment was prepared by Arcadis (refer Appendix V of this EIS), which assessed the impacts on greenhouse gas emissions from the construction and operation of the Proposal. The construction and operation of the Proposal would result in the generation of GHG emissions.

The total GHG emissions associated with the construction of the Proposal are expected to be 8,884 tonnes of carbon dioxide equivalents (tCO₂-e) during the 24 month construction period. Scope 1 emissions would generate 73% of total emissions, with Works Period D (Bulk earthworks) generating the greatest proportion of emissions (24%)

The total GHG emissions associated with the operation of the Proposal include 118,733 tCO₂-e per year, including 16,202 tCO₂-e per year Scope 1 emissions, 72,799 tCO₂-e per year Scope 2 emissions, and 29,733 tCO₂-e per year Scope 3 emissions.

The total annual emissions of the Proposal amount to approximately 0.02% of Australia's total annual GHG emissions and 0.13% of Australia's total transport emissions. Accordingly, the contribution of the Proposal to Australia's GHG emissions is not considered to be significant, in terms of both the construction and operational phases of the Proposal.

Mitigation strategies have been identified to reduce the emissions associated with the construction and operational phases of the Proposal. The implementation of these mitigation measures would further reduce GHG emissions for the Proposal.

A climate change risk and adaptation assessment for the Proposal was undertaken to assess the risk posed by climate change and to identify adaptation strategies to mitigate these risks. Under the worst case scenario (high emissions scenario) for the long-term time period (2090) the assessment identified a total of 13 key climate change risks for the Proposal, associated with the following changes in climate variables:

- Temperature Increases
- Increased rainfall intensity
- Reduced annual rainfall
- Storms, hail and wind events
- Increased frequency of bushfire.

A range of adaptive responses for treatment of the climate change risks identified would be incorporated into the design and operation of the Proposal to promote resilience to projected future climate change. Once implemented the engineering design and procedural responses for treatment of priority climate change risks would result in lower residual risk levels. For the year 2090, following the implementation of adaptation measures the Proposal would not be subject to any high climate change risks, whereby six moderate risks and seven low risks remain. These are considered to be within the threshold of acceptable risk levels.

Cumulative impacts

An assessment of the cumulative impacts arising from the Proposal in conjunction with the MPE Stage 1 and MPW Stage 2 Projects, as well as other planned or proposed developments on the local area was undertaken (refer to Section 18 of this EIS).

The assessment considered cumulative impacts regarding traffic and transport, noise and vibration, air quality, human health, biodiversity, hazard and risk and visual amenity. Across the issues assessed for cumulative impacts, most did not identify significant additional impacts or exceedances of criteria and no additional mitigation measures were identified as being required.

The assessment concluded that, with reasonable and feasible mitigation measures applied, the cumulative impacts of the Proposal is likely to meet all statutory guideline requirements.

Other issues

The EIS includes an assessment of the Proposal having regard to the other environmental issues identified in the SEARs and those that, although not identified in the SEARs, were considered relevant to the construction and operation of the Proposal.

Waste

Arcadis has undertaken an assessment of waste to be generated and disposed of during construction and operation for the Proposal (refer to Section 20.1 of this EIS).

The waste impacts of the construction and operation of the Proposal are deemed to be minor and any impacts would be readily managed and reduced through the implementation of mitigation measures.

The construction phase of the Proposal would involve clearing, demolition, earthworks, drainage works and the construction of infrastructure, which would generate waste in the form of Virgin Excavated Natural Material and Excavated Natural Material (VENM and ENM), surplus building and packaging materials, concrete, asphalt, contaminated soil and vegetation. During operation, waste would be generated through offices, amenities, lunch rooms, and de-stuffing and packing containers, which would generate waste in the form of cardboard, plastics, pallets, sewerage, trade waste, recyclables and used spill kit consumables.

Measures to mitigate the effect of the construction waste streams would be incorporated into the Proposal's CEMP and would include best practice waste avoidance and waste management where practicable.

Measures to mitigate the effect of waste arising during operation of the facility would be incorporated into the OEMP prior to commencement of operations. This would include measures to encourage recycling behaviour and increase the diversion of waste into recycling streams.

Bushfire

Australian Bushfire Protection Planners Pty Ltd (ABPP) have prepared a bushfire protection assessment for the Proposal (refer to Section 20.2 and Appendix U of this EIS). The Dry Sclerophyll Low Open Forest on the vacant land to the east and south of the Proposal site and the vegetation beyond the Moorebank Avenue road corridor, to the west of the Proposal site, present potential bushfire threat to the Proposal.

The proposed construction compounds, site office locations and construction parking areas would be located at suitable distances from vegetated and bushfire prone areas. Consequently, the bushfire threat to the fixed assets (construction compounds) during construction is considered to be low.

The operation of the Proposal is consistent with the objectives of *Planning for Bushfire Protection* 2006, in that it provides the following:

- Separation distances between fixed assets and bushfire prone vegetation exceed the required defendable space widths
- Safe operational access and egress for emergency services personnel and residents is available
- Ongoing management and maintenance measures for bushfire protection
- Utility services that meet the needs of firefighters.

A bushfire management strategy, or equivalent, would be prepared as part of the CEMP and the OEMP, which would also include emergency response plans and procedures.

Property and Infrastructure

An assessment of property and infrastructure impacts has been provided within this EIS based on the majority of the technical specialist studies prepared for the Proposal (refer to Section 20.3 of this EIS), however, of particular relevance is the Utilities Strategy Report (refer to Appendix F of this EIS).

The Proposal site would require connection to potable water, sewer, electricity and communications, all of which are in close proximity to the site. This existing infrastructure is suitable to service the estimated demands of the Proposal either with augmentation or in its current condition.

Further assessment of services demand, infrastructure requirements and augmentation works, in consultation with relevant infrastructure and service providers would be undertaken during the progression of the design for the Proposal, prior to and during construction.

Overall, the Proposal has the potential to result in a number of impacts on the land uses located on affected properties (within the Proposal site) and within the surrounding area. The measures included in other sections of this EIS are considered suitable to mitigate these issues. The Proposal however generally supports existing conditions and facilitates the future land uses on these affected sites and within the surrounding area.

Ecologically Sustainable Development

An assessment of the Proposals' consistency with the principles of Ecologically Sustainable Development (ESD) has been undertaken. The Proposal has been developed in accordance with the four principles of ESD: the precautionary principle; inter-generational equity; conservation of biological diversity and ecological integrity; and improved valuation, pricing and incentive mechanisms, as described below. The assessment addresses the ESD principles and how they have been considered and incorporated into the design, construction and operation of the Proposal.

The Precautionary Principle - The Proposal design and all associated technical studies have been developed in accordance with a precautionary approach to minimise uncertainty and to avoid, minimise, or mitigate potential environmental and social impacts. The EIS identifies mitigation measures and environmental management procedures that would be implemented to minimise and monitor impacts which may occur as a result of uncertainties in the impact assessment. Where a level of uncertainty was identified in the data used for the assessments, a conservative worst-case scenario analysis was undertaken. The technical specialist studies provide a detailed analysis of both the construction and operational phases of the Proposal, to consider the environmental impacts, having regard to the precautionary principle. Subject to the implementation of mitigation measures, these specialist studies did not identify any issues that may cause serious and irreversible environmental damage as a result of the Proposal (refer to Sections 7- 20 and 22 of this EIS).

Inter-generational equity - The Proposal has been designed to benefit both existing and future generations through the provision of high standard warehousing and distribution facilities, which, when supported by an IMT, will remove significant numbers of freight vehicles from main roads between the Moorebank Precinct and other rail connected freight facilities. A reduction in freight traffic volumes would have direct and flow-on economic, social and wider environmental benefits, including but not limited to improved inter-regional access, reduced freight and transport costs for industry and businesses and job creation during construction and operation.

Further, the development of warehousing and distribution facilities at Moorebank and the associated IMT facility was identified in a number of NSW strategic planning and policy documents (refer to Section 3 of this EIS), as a key facility which would provide for localised employment opportunities, and provide opportunities to meet the long term projected increases in freight demand across the Sydney Greater Metropolitan Area. The Proposal, being the provision of warehouse and distribution facilities to support an IMT, forms an integral part of the overall IMT strategy for Sydney.

While the Proposal would have some adverse environmental impacts during both construction and operation, they would not trigger investigation thresholds or inequitably disadvantage any sector of the community or future generations. Mitigation measures have been identified during both construction and operation, which will prevent significant adverse environmental impacts associated with the Proposal.

Conservation of Biological Diversity and Ecological Integrity - A comprehensive assessment of the existing local environment at the Proposal site has been undertaken to recognise any potential impacts of the Proposal on local biodiversity. A detailed biodiversity assessment, and associated proposed mitigation measures have been outlined in Section 11 and Appendix O of this EIS. A key element of this mitigation includes the preparation of on-going management plans and areas for biodiversity offset which would contribute to the conservation of the biological diversity and ecological integrity of the surrounding area. The Proposal has generally minimised impacts to sensitive areas adjacent to the Proposal site, including the Boot Land to the south and the east of the MPE site, where reasonable and feasible.

Improved Valuation and Pricing of Environmental Resources - While it is often difficult to place a reliable monetary value on the residual, environmental and social effects of the Proposal, the value placed on avoiding and minimising the environmental impacts of the Proposal is demonstrated in the design features incorporated into the Proposal, and the extent of environmental investigations that have been undertaken to inform this EIS. The approach taken for the Proposal has been to manage environmental impacts by identifying appropriate safeguards to mitigate adverse environmental effects and take up environmental enhancement opportunities. The cost of implementing these safeguards has been included in the total proposal cost, thereby appropriately reflecting the value of environmental resources.

With appropriate mitigation measures as identified throughout this EIS, undertaking the Proposal in the manner proposed is justifiable taking into consideration the principles of ESD.

Socio Economic

A socio-economic investigation has been undertaken for the Proposal. The demographics of the community in proximity to the Proposal site have shown that the population does not generally differ from that of the rest of NSW. The population has a high level of employment and generally has a higher level of social advantage than the NSW average.

Construction impacts and benefits that would affect the socio-economic environment would be temporary and include the employment of a construction workforce, changes to noise and visual amenity, air quality and changes to traffic transport and access arrangements. In general, it is anticipated that the majority of impacts would be minor and temporary, and would generally be within localities closest to the Proposal site.

There is potential for positive and negative socio-economic impacts associated with the operation of the Proposal. Positive impacts are likely to be felt more at a regional level while both positive and negative impacts associated with the development would possibly be experienced at the local level. Assessments of traffic, air quality, visual amenity, noise and vibration and health impacts associated with operation of the Proposal found that any socio-economic impacts would be minor, particularly with proposed mitigation measures minimising any negative impacts.

It is anticipated that 600 construction personnel would be required across the duration of the construction program and 1,408 personnel during operation. These jobs, where practicable, would be filled locally.

Justification and conclusion

The Proposal, identified as a State Significant Development, has been subject to an EIS in accordance with the EP&A Act and the SEARs. The potential environmental, social and economic impacts, both direct and cumulative, have been identified and thoroughly assessed as part of this EIS. No significant environmental impacts have been identified by the Proposal in preparing the EIS. The environmental impacts identified would be mitigated through the implementation of measures for the construction and operation of the Proposal (refer to Section 21 of this EIS).

The Proposal has been assessed against, and has been found to be consistent with, the priorities and targets adopted in relevant draft and published State plans, as well as Government policies and strategies. The Proposal provides regional benefits through the removal of freight trucks from the M5 Motorway, easing congestion on this arterial road, and by reducing average delivery distances and supporting more efficient use of road transport. It would provide up to 300,000m² Gross Floor Area (GFA) of warehouse and distribution facilities, as well as ancillary infrastructure to support an IMT facility on the MPE and would contribute to achieving Federal and State land use, freight and logistics policies.

The Proposal meets the requirements of the SEARs and is considered consistent with the MPE Concept Plan Approval (modified) and EPBC Approval. The Proposal also complies with Section 79C of the EP&A Act and is consistent with the principles of ecologically sustainable development.

Overall the EIS concludes that the development proposed is in the public interest and approval is recommended.

1 INTRODUCTION

MPE Concept Plan Approval (MP10_0193) for an intermodal terminal (IMT) facility at Moorebank, NSW (the Moorebank Precinct East Project (MPE Project) (formerly the SIMTA Project)) was received on 29 September 2014 from the NSW Department of Planning and Environment (DP&E). The Concept Plan for the MPE Project involves the development of an IMT, including a rail link to the Southern Sydney Freight Line (SSFL) within the Rail Corridor, warehouse and distribution facilities with ancillary offices, a freight village (ancillary site and operational services), stormwater, landscaping, servicing, associated works on the eastern side of Moorebank Avenue, Moorebank, and construction or operation of any part of the project, which is subject to separate approval(s) under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This Environmental Impact Statement (EIS) is seeking approval, under Part 4, Division 4.1 of the EP&A Act, for the construction and operation of Stage 2 of the MPE Project (herein referred to as the Proposal) under the MPE Concept Plan Approval for the MPE Project, being the construction and operation of warehouse and distribution facilities (refer to Section 4 for more information).

This EIS has been prepared to address:

- The Secretary's Environmental Assessment Requirements (SEARs) (SSD 16-7628) for the Proposal, issued by NSW DP&E on 27 May 2016 and amended on 24 November 2016 (Refer to Appendix A of this EIS).
- The relevant requirements of the MPE Concept Plan Approval (MP 10_0193) dated 29 September 2014 (as modified) (Refer to Appendix A of this EIS).
- The relevant requirements of the approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (No. 2011/6229, granted in March 2014 by the Commonwealth Department of the Environment (DoE)) (as relevant) (Refer to Appendix A of this EIS).

This EIS also gives consideration to the MPE Stage 1 Proposal (SSD 14-6766) including the mitigation measures and conditions of consent as relevant to this Proposal.

This EIS has been prepared to provide a complete assessment of the potential environmental impacts associated with the construction and operation of the Proposal. This EIS proposes measures to mitigate these environmental impacts and reduce any unreasonable impacts on the environment and surrounding community.

1.1 Applicant for Stage 2 Proposal and Capital Investment Value

The Proponent for the Proposal is the Sydney Intermodal Terminal Alliance (SIMTA), who has national experience in logistics delivery, property management, and a strong commitment to stakeholder engagement. Collectively, the SIMTA members currently own and/or operate eight IMT facilities across Australia.

The capital investment value for the Proposal, consistent with the definition provided in the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), is approximately \$454 million Australian Dollars (AUD) (excluding GST) (refer to the Quantity Surveyor's Report prepared by Rider Levett Bucknall (Appendix B).

1.2 Background

1.2.1 The Moorebank Precinct East (MPE) Project

SIMTA proposes to redevelop 83 hectares of industrial zoned land for use as an IMT facility at Moorebank, NSW (the MPE Project).

The MPE Project (MP 10_0193, approved under Transitional Part 3A of the EP&A Act) involves the development of an IMT, warehouse and distribution facilities with ancillary offices, a freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works on the MPE site, located on the eastern side of Moorebank Avenue, Moorebank, together with a rail link connecting the MPE Project to the SSFL within the Rail Corridor (the entire area, being the MPE site and Rail Corridor is herein referred to as the Project site).

The MPE Project is to be developed in three key stages:

- Stage 1- Construction and operation of the IMT facility and rail link (herein referred to as the Stage 1 Proposal, refer to Section 1.2.2 for more information)
- Stage 2 (this Proposal) - Construction and operation of warehouse and distribution facilities (refer to Section for more information)
- Stage 3- Increase in capacity of the IMT facility as per the Concept Plan Conditions of Approval (herein referred to as the future Stage 3 Proposal) and upgrades to the warehousing and distribution facilities (in accordance with the Concept Plan Conditions of Approval) to accommodate the increase in capacity of the IMT.

A summary of the existing approvals relating to the MPE Project are discussed further in Section 1.4.

1.2.2 MPE Stage 1 Proposal

Approval for the first Development Application (DA) under the Concept Plan for the MPE Project (the Stage 1 Proposal) is currently being sought by the NSW Planning Assessment Commission (PAC) as delegate of the Minister for Planning and Environment. The Stage 1 Proposal seeks approval, under Part 4, Division 4.1 of the EP&A Act, for the construction and operation of an IMT, including the necessary infrastructure to support a container freight road volume of 250,000 twenty-foot equivalent units throughput per annum. Specifically, the Stage 1 Proposal includes the following key components, which together comprise the IMT:

- Truck processing, holding and loading areas with an entrance and exit point from Moorebank Avenue
- Rail loading and container storage areas including the installation of four rail sidings with an adjacent container storage area serviced initially by manual handling equipment and progressive installation of overhead gantry cranes
- An administration facility and associated car parking with light vehicle access from Moorebank Avenue
- The Rail link, located within the Rail Corridor and including a connection to the IMT facility, traversing Moorebank Avenue, Anzac Creek and Georges River and connecting to the SSFL
- Ancillary works including vegetation clearance, remediation, earth works, utilities installation/connection, signage and landscaping.

The Stage 1 Proposal is shown on Figure 1-1.

1.2.3 MPE Stage 2 Proposal

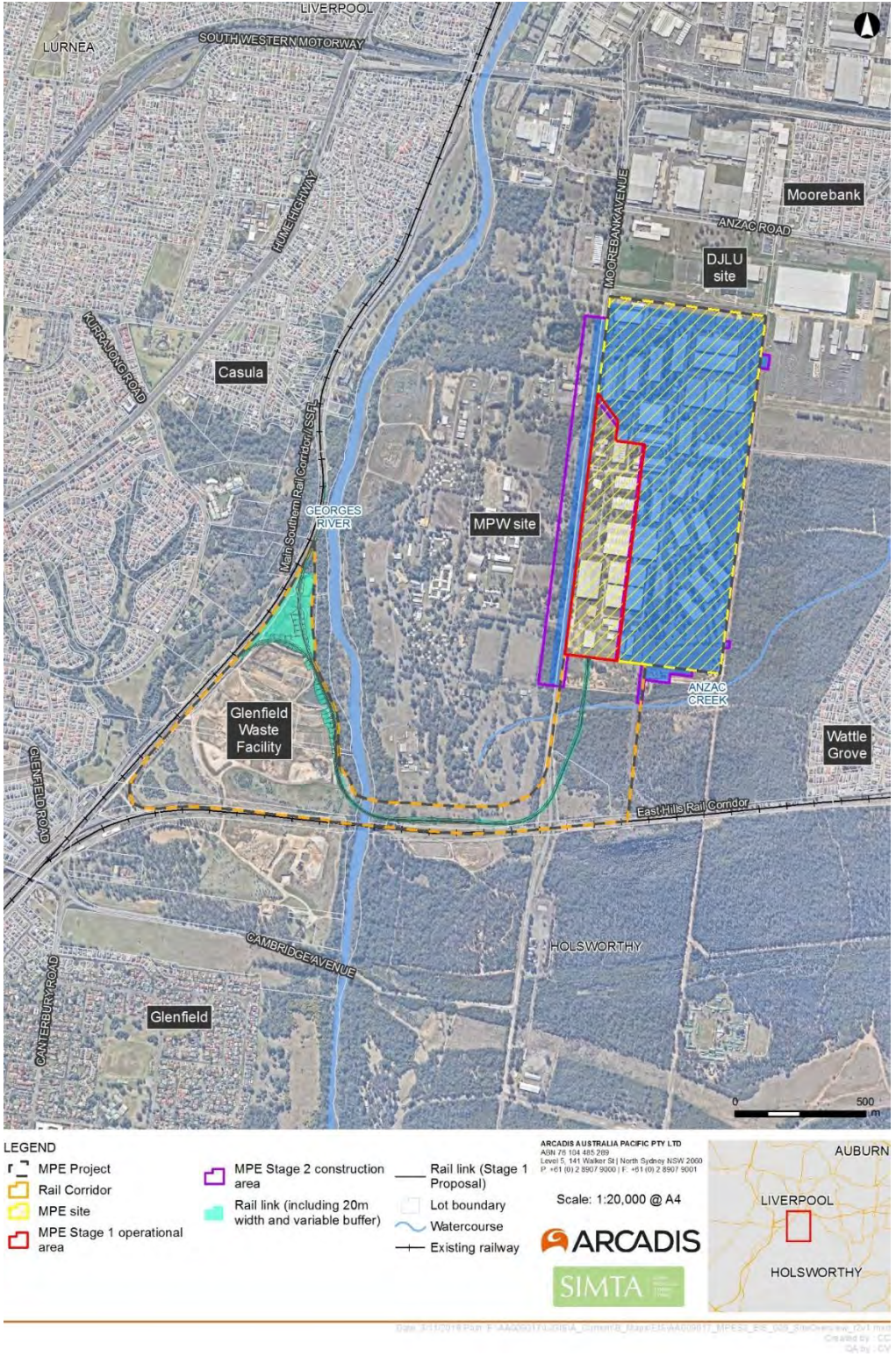
The Proposal, which is the subject of this EIS and represents the second stage of the MPE Project, seeks approval under Part 4, Division 4.1 of the EP&A Act for the construction and operation of warehousing, distribution facilities and associated ancillary infrastructure.

Key components of the Proposal include:

- Warehousing comprising approximately 300,000m² GFA and additional ancillary offices
- A freight village, comprising 8,000m² GFA of retail, commercial and light industrial land uses
- Establishment of an internal road network, and connection of the Proposal to the surrounding public road network
- Ancillary supporting infrastructure within the Proposal site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation and installation
 - Vegetation clearing, remediation, earthworks, signage and landscaping
- Subdivision of the MPE Stage 2 site
- The Moorebank Avenue upgrade would be comprised of the following key components:
 - Modifications to the existing lane configuration, including some widening
 - Earthworks, including construction of embankments and tie-ins to existing Moorebank Avenue road level at the Proposal's southern and northern extents
 - Raking of the existing pavement and installation of new road pavement
 - Establishment of temporary drainage infrastructure, including temporary basins and / or swales
 - Adjusting the vertical alignment by about two metres from the existing levels, including kerbs, gutters and a sealed shoulder
 - Signalling and intersection works
- Upgrading existing intersections along Moorebank Avenue, including:
 - Moorebank Avenue / MPE Stage 2 access
 - Moorebank Avenue / MPE Stage 1 northern access
 - Moorebank Avenue / MPE Stage 2 central access
 - MPW Northern Access / MPE Stage 2 southern emergency access

The construction and operation of the Proposal will be consistent with the provisions prescribed in the MPE Concept Plan Approval Conditions of Approval and Statement of Commitments, where relevant (refer to Appendix A of this EIS).

The Proposal would operate 24 hours a day, 7 days a week. The footprint and operational layout of the Proposal are shown in Figure 1-2.



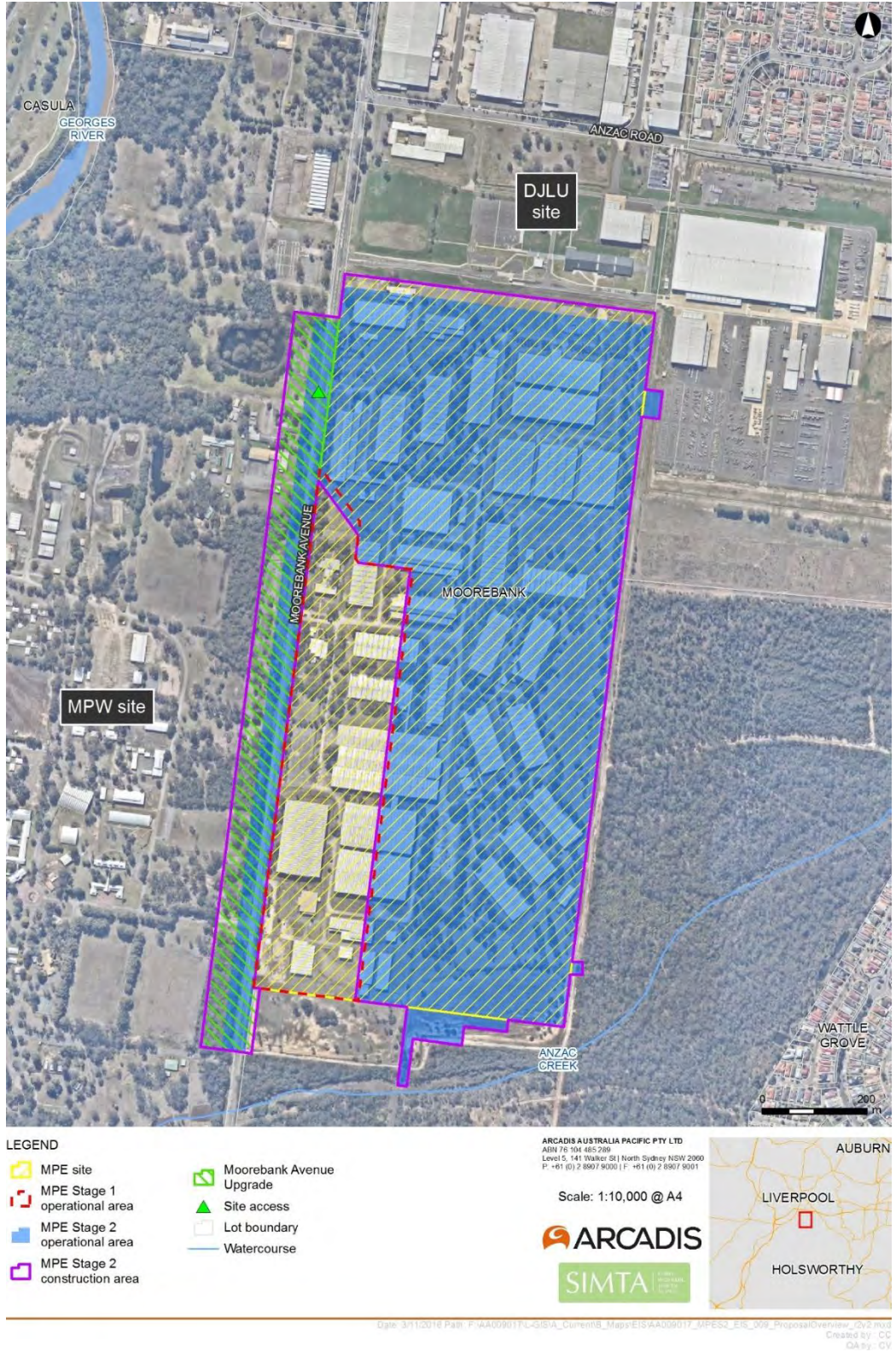


Figure 1-2 Overview of the Proposal

1.2.4 Proposal components and key terms

Table 1-1 provides a summary of the key terms relevant to the Moorebank Precinct, in addition to the glossary provided above.

Table 1-1 EIS key terms

Term	Definition
General terms	
Concept Plan Conditions of Approval	Conditions of Approval provided by NSW DP&E which form part of the approval documentation for the MPE Concept Plan Approval. The Conditions of Approval for the MPE Concept Plan (as modified) are provided in Appendix A
The Moorebank Precinct	Comprising the Moorebank Precinct East and Moorebank Precinct West sites.
Moorebank Precinct West (MPW) Project (formerly the MIC Project)	The MPW Project as approved under the MPW Concept Approval (SSD_5066) and the MPW EPBC Approval (No. 2011/6086).
Moorebank Precinct West (MPW) site (formerly the MIC site)	The site which is the subject of the MPW Concept Approval, MPW EPBC Proposal and MPW Planning Proposal (comprising Lot 1 DP1197707 and Lots 100, 101 DP1049508 and Lot 2 DP 1197707). The rail link, as referenced in the MPW Planning Proposal, would be constructed under the MPE Concept Plan Approval.
Moorebank Precinct East (MPE) Concept Plan Approval (formerly the SIMTA Concept Plan Approval)	MPE Concept Plan Approval (MP 10_0193), granted by DP&E on 29 September 2014 for the development of an intermodal terminal facility including; a rail link connecting the site to the Southern Sydney Freight Line, an intermodal terminal, warehousing and distribution facilities and a freight village.
Moorebank Precinct East (MPE) Project (formerly the SIMTA Project)	The MPE Intermodal Terminal Facility, including a rail link and warehouse and distribution facilities at Moorebank (eastern side of Moorebank Avenue) as approved by the Concept Plan Approval (MP 10_0913) and the MPE Stage 1 Approval (14_6766).
Moorebank Precinct East (MPE) Site (formerly the SIMTA site)	Including the former DSND site and the land owned by SIMTA which is subject to the MPE Concept Plan Approval (Lot 1 DP1048263). The MPE site does not include the rail corridor, which relates to the land on which the rail link is to be constructed.
Statement of Commitments	Recommendations provided in the specialist consultant reports prepared as part of the Concept Plan application to mitigate environmental impacts, monitor environmental performance and/or achieve a positive environmentally sustainable outcome in respect of the MPE Project. The Statement of Commitments have been proposed by SIMTA as the proponent of the Concept Plan Approval.

MPE Stage 2 Proposal - Environmental Impact Statement

Term	Definition
Moorebank Precinct East Stage 1 specific terms	
Rail Corridor	Area defined as the 'Rail Corridor' within the MPE Concept Plan Approval (refer to Figure 1-1)
Rail Link	The rail link from the South Sydney Freight Line to the MPE IMEX Terminal, including the area on either side to be impacted by the construction works included in the MPE Stage 1 Proposal (refer to Figure 1-1)
MPE Stage 1 Proposal (formerly SIMTA Stage 1)	Stage 1 (14-6766) of the MPE Concept Plan Approval for the development of the MPE IMT Facility at Moorebank, including the rail link. This reference also includes associated conditions of approval and environmental management measures which form part of the documentation for the approval.
Stage 1 Proposal site (formerly the SIMTA Stage 1 Proposal site)	Includes the MPE Stage 1 site and the Rail Corridor, i.e. the area for which approval (construction and operation) was granted within the Stage 1 Proposal EIS (refer to Figure 1-1).
Moorebank Precinct East Stage 2 specific terms	
Moorebank Precinct East (MPE) Stage 2 Proposal/ the Proposal (formerly the SIMTA Stage 2 Proposal/the Proposal)	The subject of this EIS, Stage 2 of the MPE Concept Plan Approval, including the construction and operation of 300,000m ² of warehousing and distribution facilities on the MPE site within the Moorebank Precinct.
Moorebank Precinct East (MPE) Stage 2 site/Proposal site (formerly the SIMTA Stage 2 site/Proposal site)	The area within the MPE site which includes all areas to be disturbed by the MPE Stage 2 Proposal (including the operational area and construction area) (refer to Figure 1-1). The Proposal site includes both the MPE Stage 2 site and the Moorebank Avenue site.
Stage 2 site	The area of land which primarily relates to the part of the SIMTA site, on which warehousing and a freight village is to be developed, and some surrounding areas, on which ancillary drainage development is to be developed.
Moorebank Avenue site	The area of land which includes part of Moorebank Avenue, on which the Moorebank Avenue upgrade is to be developed, and the MPW site, on which the associated OSD is to be developed.
Construction area	Extent of construction works, namely areas to be disturbed during the construction of the MPE Stage 2 Proposal (the Proposal).
Operational area	Extent of operational activities for the operation of the MPE Stage 2 Proposal (the Proposal).

1.3 MPE Project objectives

The key objectives of the MPE Project are identified in the Concept Plan Environmental Assessment (EA). The key objectives of the Proposal as part of the MPE Project, are to deliver an IMT facility which will:

- Be strategically located to utilise existing and future metropolitan, State and National rail freight and road networks, including the SSFL and the M5 and M7 Motorways
- Provide capacity for an annual throughput of up to 500,000 TEUs, as an initial step to meeting the forecast demand of approximately 1,000,000 TEU for Western and South-Western Sydney
- Make a significant contribution to achieving Federal and State land use, freight and logistics policies, including the State Plan target of increasing the proportion of container freight being transported by rail
- Assist with alleviating freight-related road congestion between Port Botany and Moorebank, particularly along the M5 Motorway
- Be appropriately designed and managed to provide operational efficiencies and to appropriately mitigate impacts on the surrounding environment and local community
- Provide freight distribution opportunities in a strategically appropriate location, and in turn, provide employment opportunities and associated economic and social benefits in Western and South-Western Sydney.

The Proposal would assist in the delivery of the above overall MPE Project objectives, in particular:

- By increasing the proportion of container freight being transported by rail
- Assisting with alleviating freight related road congestion between Port Botany and Moorebank
- By providing operational efficiencies and mitigating impacts on the environment and community through appropriate design and management
- Through freight distribution opportunities in a strategically appropriate location, which will provide employment opportunities and associated economic and social benefits in Western and South-Western Sydney,

1.4 MPE Project statutory planning approvals

1.4.1 MPE EPBC and Concept Plan Approval

Statutory planning approvals to-date for the MPE site as they relate to the MPE Project include:

- EPBC Approval (No. 2011/6229) granted in March 2014 by the Minister for the Environment (Cwth) for the impact of the MPE Project on listed threatened species and communities (sections 18 and 18A of the EPBC Act) and Commonwealth land (sections 26 and 27A of the EPBC Act).
- MPE Concept Plan Approval (MP 10_0193), granted by the PAC as delegate of the Minister for Planning and Environment on the 29 September 2014 for the 'Concept Plan Approval' of the MPE Project under Part 3A¹ of the EP&A Act.

¹ Part 3A of the EP&A Act was repealed on 31 October 2011. Transitional arrangements for projects (including concept plans) approved under Part 3A of the EP&A Act before its repeal are provided in Schedule 6A of the EP&A Act.

The MPE EPBC and Concept Plan Approvals involved the preparation of design and EA documentation as relevant to the concept plan approval stage. Further detail relating to the previous investigations and studies undertaken as part of previously prepared EAs as relevant to the Proposal is provided through Section 7 to Section 19 of this EIS.

The Conditions of Approval for the MPE EPBC Approval, and the MPE Concept Plan Approval provide a detailed list of further investigations and information that should be undertaken to inform future approvals for the site, and ultimately construction and operation of the MPE Project, including Stage 2. The Conditions of Approval for both the MPE EPBC Approval and MPE Concept Plan Approval are included at Appendix A. The Concept Plan Land uses which formed the basis for the approval of the MPE Concept Plan Approval is reproduced in Figure 1-3.

This EIS is seeking approval for the construction and operation of the Proposal as part of the MPE Concept Plan Approval, and would be consistent with the EPBC Approval conditions, where relevant.

1.4.2 MPE Concept Plan Modification 1

The MPE Project was granted Concept Plan Approval on 29 September 2014 under Part 3A of the EP&A Act. A Concept Plan modification application, prepared under Section 75W of the EP&A Act was submitted concurrently with the EIS for the Stage 1 Proposal (Concept Plan modification 1). Concept Plan modification 1 requests approval from the Secretary of DP&E for the following modifications:

- Modification A: Inclusion of Lot 1 Deposited Plan (DP) 1130937 in the MPE Concept Plan Approval (MP10_0193) for the MPE Project. Figure 2-3 in Section 2.5 of this EIS shows the location of this lot.
- Modification B: Revision of Condition 1.9 of the MPE Concept Plan Approval (No. 10_0193) to include an exclusion of terms relating to road infrastructure upgrades and when they will be carried out, and the term relating to investigating possible changes to the 901 bus route.

Modification A is considered consistent with all relevant planning and environmental legislation and due to the scale will result in minor or negligible environmental impacts that will be confined to the MPE Project site. As a result of this limited environmental impact, Modification A is considered to result in minor impacts above those identified in within the previous MPE Concept Plan Approval (MP10_0193).

Modification B is administrative and will have no impact on the MPE Concept Plan Approval (No.10_0193). Approval for Concept Plan modification 1 is currently being sought by the Secretary of DP&E. Determination of this Concept Plan Modification is expected in late 2016.



Figure 1-3 MPE Concept Plan Approval land uses (approved in the Concept Plan Application, MP 10_0193)

1.4.3 MPE Concept Plan Modification 2

A Concept Plan modification application, prepared under Section 75W of the EP&A Act was submitted concurrently with this EIS (Concept Plan modification 2). Concept Plan modification 2 requests approval from the Secretary of DP&E for the following modifications:

- Inclusion of the Moorebank Avenue upgrade
- Change in the location of the MPE Stage 2 site access
- The use of internal road 2 for heavy vehicle movements
- The importation of general fill to facilitate construction and bulk earthworks
- Change in the location of, and land uses within the freight village
- Revisions to the staging of the MPE Project
- Subdivision of the MPE site

The potential impacts of the Proposal that relate to these items have been assessed as part of this EIS.

1.4.4 MPE Stage 1 Proposal

Approval for the Stage 1 Proposal (refer to Section 1.2.2 and Figure 1-2 for more information) is currently being sought by the NSW Planning Assessment Commission (PAC) as delegate of the Minister for Planning and Environment. An EIS was prepared and submitted concurrently with the modification for Concept Plan Modification 1 (refer to Section 1.4.2). Determination of this Concept Plan Modification is expected in late 2016.

1.5 Moorebank Precinct West (MPW) Project

The Moorebank Precinct West (MPW) Project is located immediately west of the MPE site, across Moorebank Avenue (MPW site). The MPW site encompasses the former School of Military Engineering (comprising Lot 1 DP1197707 and Lots 100, 101 DP1049508 and Lot 2 DP 1197707). Approval for the MPW Concept Plan (SSD 5066), under Part 4, Division 4.1 of the EP&A Act to develop the MPW Project, was received on 3 June 2016.

The MPW Project involves the development of an IMT facility that would support the transport of freight by rail between Victoria, Queensland, regional NSW and NSW Ports. It also includes associated commercial infrastructure (i.e. warehousing), a rail link connecting the MPW site to the rail link to be developed for the MPE Stage 1 Proposal (SSD 14-6766), and a road entry and exit point from Moorebank Avenue.

Approval for the Early Works phase was granted as Stage 1 of the MPW Project within the MPW Concept Approval, with works for this phase commenced in late 2016. The other phases of the MPW Project are subject to additional approvals undertaken in accordance with Part 4, Division 4.1 of the EP&A Act.

An EIS seeking approval for Stage 2 of the MPW Project, being the construction and operation of a multi-purpose IMT facility (that enables interstate and intrastate freight distribution and port shuttle (IMEX) movements), warehousing and a Rail link connection under the MPW Concept Approval was lodged with DP&E and was placed on public exhibition from 26 October 2016 to 25 November 2016.

1.6 The Moorebank Precinct

In December 2014 it was announced by the Moorebank Intermodal Company (MIC) (the Applicant for the MPW Concept Plan), that MIC and SIMTA have reached an agreement to develop their respective IMT sites (MPE and MPW) as a whole precinct (herein referred to as the Moorebank Precinct). This agreement is subject to satisfying several conditions which both parties are currently working towards.

The Rail link to be constructed as part of the MPE Stage 1 Proposal would be utilised for the purposes of Stage 2 of the MPW Project. Notwithstanding this, as approvals have previously been provided separately it is intended that the MPE and MPW statutory planning approvals remain separate, and therefore for the sites to be constructed and operated via progressive individual approvals which are consistent with the Concept Plan's granted for each of the respective sites.

1.7 Planning approval pathway overview

On 29 September 2014, Concept Plan Approval was granted for the MPE Project under Part 3A Section 75O of the EP&A Act for:

“use of the site [the MPE site] as an intermodal facility, including a rail link to the Southern Sydney Freight Line within an identified rail corridor, warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works”.

Notwithstanding this, as indicated in the Conditions of Approval, the MPE Concept Plan Approval does not permit the construction or operation of any part of the MPE Project. Any construction and operational activities within the MPE site for the purpose of the MPE Project are subject to obtaining subsequent development consent under the EP&A Act.

The Concept Plan Approval states that approval to carry out the MPE Project is subject to assessment and determination in accordance with Part 4, Division 4.1 of the EP&A Act, and any EIS would be carried out in accordance with the future environmental assessment requirements, specified in Part 2 of Schedule 3 of the MPE Concept Plan Approval Conditions of Approval (refer to Appendix A of this EIS).

In addition, Section 8(1) of the *State Environmental Planning Policy (State and Regional Development) 2011* (State and Regional Development SEPP) states that

‘Development is declared to be State significant development for the purposes of the Act if:

- (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.’*

The MPE Project is located on land zoned as IN1 General Industrial under the *Liverpool Local Environmental Plan 2008* (Liverpool LEP). The MPE project is classified as a freight distribution facility and warehouse or distribution centre, both of which are permitted with consent. The Proposal, subject to assessment in this EIS is for the purpose of warehouse and distribution facilities only.

Clause 12(1) of Schedule 1 of the State and Regional Development SEPP states that development for the purposes of warehouses or distribution centres is considered to be State significant if:

‘Development has a capital investment value of more than \$50 million for the purpose of warehouse or distribution centres (including container storage facilities) at one location and related to the same operation’.

As the capital investment value of the Proposal is estimated to be approximately \$356 million AUD (excluding GST), the Proposal would exceed the \$50 million threshold prescribed in clause 12(1) of Schedule 1 of the State and Regional Development SEPP. As a result and as the Proposal is for the purpose of warehouses or distribution centres, it is considered to be State Significant Development (SSD) under the State and Regional Development SEPP.

As a result, the Proposal would require a DA to be submitted to DP&E, accompanied by an EIS under Part 4, Division 4.1 of the EP&A Act. Further, clause 3 of Schedule 2 of the EP&A Regulation states that:

‘Before preparing an environmental impact statement, the responsible person must make a written application to the Secretary for the environmental assessment requirements with respect to the proposed statement.’

In accordance with the MPE Concept Plan Approval, development consent is sought for the Proposal under Part 4, Division 4.1 of the EP&A Act.

A written application for SEARs in the form of a Preliminary Environmental Assessment was submitted to DP&E on 28 April 2016. The SEARS were issued to SIMTA for the Proposal on 27 May 2016 and form the basis of this EIS (refer to Appendix A of this EIS).

1.8 Structure of this EIS

The structure of the EIS is as follows:

- **EIS Summary:** Provides a brief overview of the Proposal, key environmental assessment results and an outline of the proposed environmental and social mitigation measures
- **Section 1 – Introduction:** Provides an introduction to the Proposal and the EIS, including project objectives, site history, previous approvals and relevant documentation
- **Section 2 – Site Description:** Provides a summary of the existing Proposal site, its location in a regional and local context and the legal description and ownership of the Proposal site
- **Section 3 – Proposal Justification, Need and Alternatives:** Provides a discussion on the need for the Proposal having regard to strategic justification, relevant legislation, plans and policy and also provides alternatives to the design and location of the Proposal
- **Section 4 – Proposal Description:** Includes a description of the Proposal including built form, construction methodology and operational procedures
- **Section 5 – Statutory Planning and Approvals:** Provides a summary and assessment of the Proposal having regard to relevant statutory legislation and plans at a Commonwealth, State and Local Government level
- **Section 6 – Consultation:** Provides a summary of the consultation (public, stakeholder and government agencies) which has been undertaken to date for the Proposal

- **Sections 7 to 20 – Key Environmental Issues:** Provides a discussion on the existing environment conditions and an assessment of the key environmental issues (identified in the SEARs) for the Proposal namely Traffic and Transport, Noise and Vibration, Air Quality, Human Health, Biodiversity, Stormwater and Flooding, Geology, Soil and Contamination, Hazard and Risk, Visual Amenity, Urban Design and Landscape, Indigenous Heritage, Non-Indigenous Heritage, Greenhouse Gas and Cumulative impacts
- **Section 20 – Other Issues:** Provides a discussion of the existing environment conditions and an assessment of the other environmental issues (identified in the SEARs) for the Proposal namely Waste, Bushfire, Property and Infrastructure, Ecologically Sustainable Development and Socio-Economic.
- **Section 21 – Environmental Risk Analysis:** Provides an analysis of the likely environmental risks and assigns a rating before and after the implementation of mitigation measures
- **Section 22 – Summary of Mitigation Measures:** Includes a summary of the mitigation measures identified in Sections 7 to 20 to minimise any adverse impact of the Proposal on the surrounding environment
- **Section 23 – Justification and Conclusion:** Provides a justification and conclusion of the Proposal.

The following Appendices are included in the EIS

Appendix	
A	Secretary’s Environmental Assessment Requirements (SSD 16-7709), Revised Environmental Management Measures, MPE Concept Plan Approval (MP10_0193) Compliance Table
B	Quantity Surveyors Report
C	Survey Plan
D	Architectural Drawings
E	Landscape Design Statement and Plans
F	Utilities and servicing strategy
G	Preliminary Construction Environmental Management Plan
H	Subdivision Plan
I	Construction works drawings
J	Community and Stakeholder Consultation Outcomes Report
K	Operational Traffic and Transport Impact Assessment
	Preliminary Operational Traffic Management Plan
	Construction Traffic Impact Assessment
	Preliminary Construction Traffic Management Plan
L	Noise and Vibration Impact Assessment
M	Air Quality Impact Assessment
	Air Quality Management Plan

Appendix	
N	Health Risk Assessment
O	Biodiversity Assessment Report
P	Stormwater and Flooding Environmental Impact Assessment
	Stormwater and Drainage Design Drawings
Q	Geotechnical data report and interpretation plan
	Contamination summary report
R	Visual Impact Assessment
	Light Spill Study Report
S	Aboriginal Heritage Impact Assessment
T	Non-Indigenous Heritage Impact Assessment
	Non-Indigenous Heritage Management Strategy
U	Bushfire Protection Assessment
V	Greenhouse Gas and Climate Risk

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2 SITE DESCRIPTION

2.1 Site context

The MPE site encompasses the entire site for which the Concept Plan Approval (as modified) was granted, with the exception of the rail link. The Proposal site, including the MPE Stage 2 site and the Moorebank Avenue site is shown in Figure 2-1 and defined in Section 1.2.4 of this EIS, namely:

- Stage 2 site - the area of land which primarily relates to the part of the SIMTA site, on which warehousing and a freight village is to be developed, and some surrounding areas, on which ancillary drainage development is to be developed.
- Moorebank Avenue site - The area of land which includes part of Moorebank Avenue, on which the Moorebank Avenue upgrade is to be developed, and the MPW site, on which the associated OSD is to be developed.

2.2 Regional context

The MPE site, including the Proposal site, is located approximately 27 km south-west of the Sydney Central Business District (CBD) and approximately 26 km west of Port Botany (refer to Figure 2-1). The MPE site is situated within the Liverpool Local Government Area (LGA), in Sydney's South West subregion, approximately 2.5 km from the Liverpool City Centre.

The MPE site is located approximately 800 m south of the intersection of Moorebank Avenue and the M5 Motorway. The M5 Motorway provides the main road link between the MPE site, and the key employment and industrial areas within Sydney's West and South-Western subregions, the Sydney orbital network and the National Road Network. The M5 connects with the M7 Motorway to the west, providing access to the Greater Metropolitan Region and NSW road network. Similarly the M5 Motorway is the principal connection to Sydney's north and north-east via the Hume Highway.

The regional context of the MPE site is shown on Figure 2-1.

MPE Stage 2 Proposal - Environmental Impact Statement

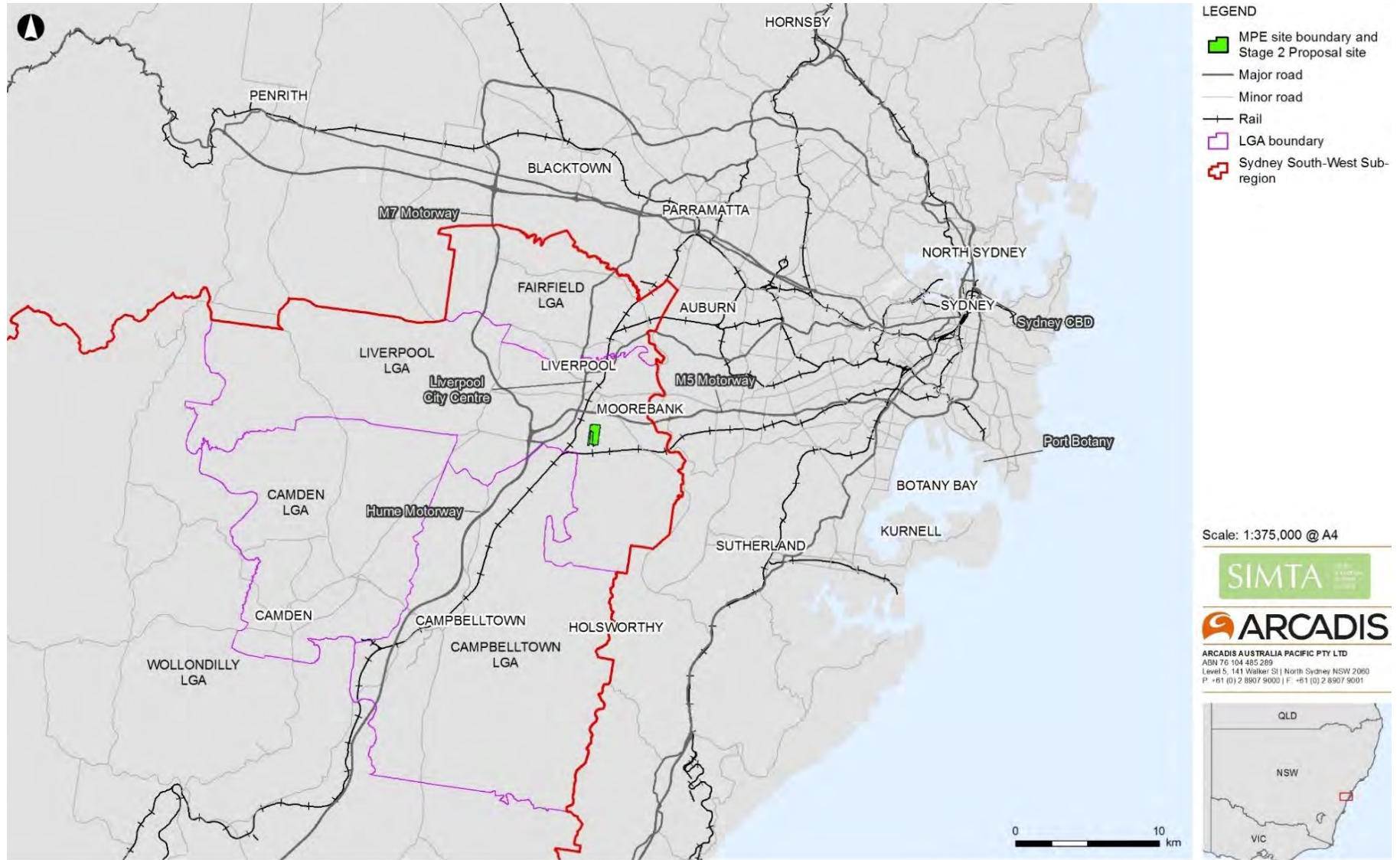


Figure 2-1 Regional context of the MPE site

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2.3 Local context

The Proposal site is located approximately 2.5 km south of the Liverpool City Centre, 800 m south of the Moorebank Avenue/M5 Motorway interchange and one kilometre to the east of the SSFL providing convenient access to and from the site for rail freight (via a dedicated freight rail line) and for trucks via the Sydney Motorway Network. The local context of the Proposal site is shown on Figure 2-2.

Until recently, the MPE site was operating as the Defence National Storage and Distribution Centre (DNSDC); however, the Department of Defence have vacated the site and relocated this operation to the Defence Joint Logistics Unit (DJLU), immediately north of the MPE site.

Land surrounding the Proposal site comprises:

- The MPW site, formerly the School of Military Engineering (SME), on the western side of Moorebank Avenue directly adjacent to the MPE site (subject to the MPW Concept Approval)
- The Holsworthy Military Reserve, to the south of the MPE site on the southern side of the East Hills Rail Corridor, which is owned and operated by Sydney Trains.
- Residual Commonwealth Land (known as the Boot Land), to the east of the MPE site between the site boundary and the Wattle Grove residential area.

The MPW site, located to the west of the MPE site, will include:

- The development of an IMT facility, including a rail link connecting the MPW site to the SSFL, warehouse and distribution facilities and associated works
- Early Works, involving the demolition of buildings, including services termination and diversion; rehabilitation of the excavation/ earthmoving training area; remediation of contaminated land; removal of underground storage tanks; heritage salvage; and the establishment of construction facilities and access, including site security

The area immediately south of the MPE site, known as the 'Southern Boot Land', includes an existing rail spur within heavily vegetated remnant bushland. Other flora in the vicinity of the Proposal site includes riparian vegetation along the banks of the Georges River before giving way to highly disturbed land used as part of the Glenfield Quarry and Glenfield Waste Facility operation.

Glenfield Waste Services, south-west of the Proposal is proposing to develop a Materials Recycling Facility on land owned by the Glenfield Waste Services Group within the boundary of the current landfill site at Glenfield. The facility is proposed to recycle a maximum of 450,000 tonnes of material per year. The Glenfield Waste Services Proposal is the subject of a DA (SSD_6249) under Part 4, Division 4.1 of the EP&A Act. The EIS for the Proposal was placed on exhibition between 17 February 2016 and 18 March 2016 and the Proponent is currently reviewing submissions received during public exhibition.

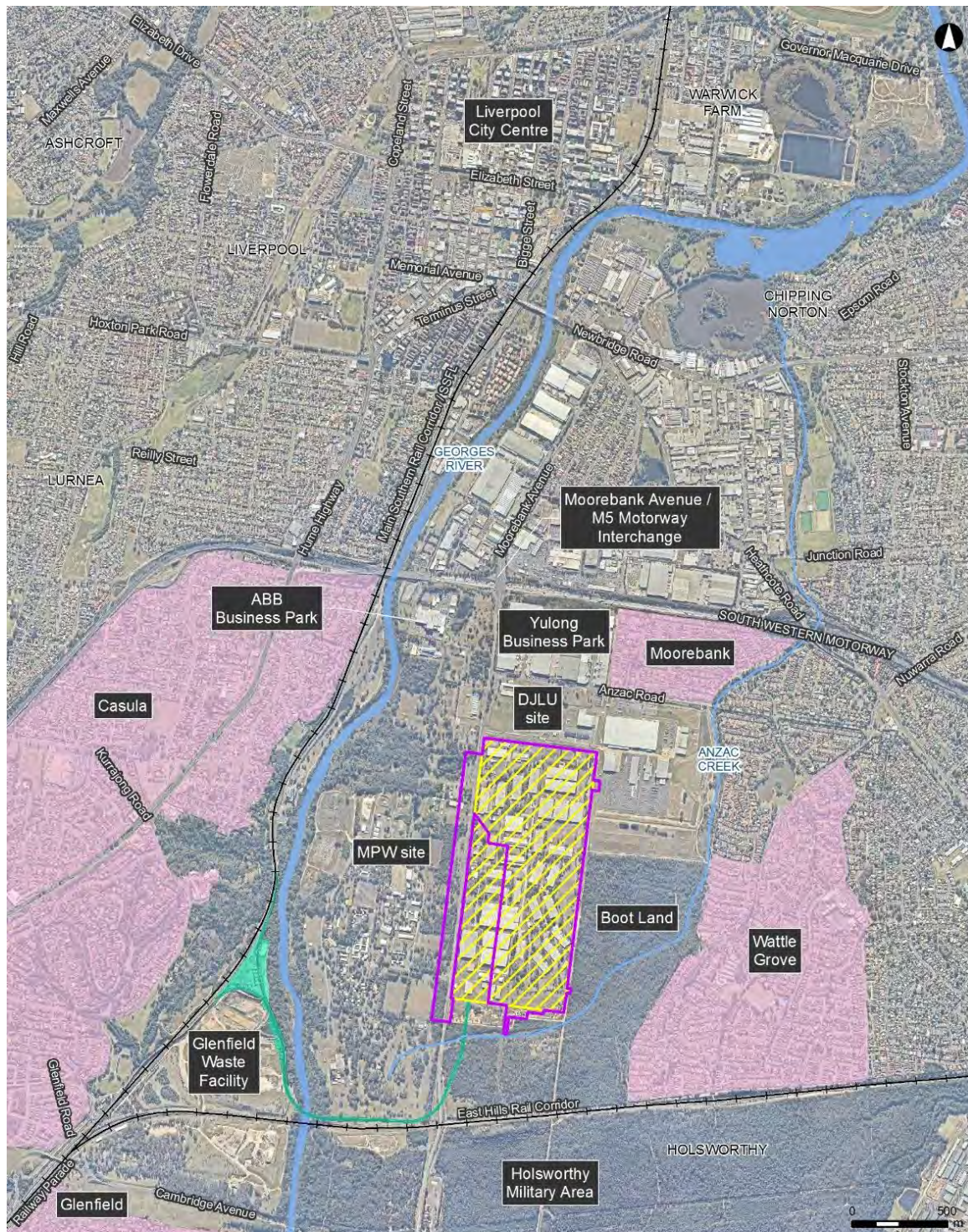
Rail infrastructure is also located further west of the MPE site, including the Main South passenger rail line and the SSFL.

A number of residential suburbs are located in proximity to the Proposal site. The approximate distances of these suburbs to the MPE Stage 2 site and the Moorebank Avenue site are provided in Table 2-1 below.








Table 2-1 Distance to residential suburbs from the Proposal site

Suburb	Distance to MPE Stage 2 site	Distance to Moorebank Avenue site
Wattle Grove	360 m to the north-east	865 m to the north-east
Moorebank	1300 m to the north	1430 m to the north
Casula	820 m to the west	760 m to the west
Glenfield	1830 m to the south-west	1540 m to the south-west

The MPE site is located near a number of significant industrial areas, including: Moorebank and Warwick Farm to the north, Chipping Norton to the north-east, Prestons to the west and Glenfield and Ingleburn to the south-west. The industrial area at Moorebank is the closest industrial precinct to the Proposal, comprising around 200 hectares of industrial development, the majority of which is located to the north of the M5 South West between Newbridge Road, the Georges River and Anzac Creek. The Moorebank Industrial Area supports a range of industrial and commercial uses, including freight and logistics, heavy and light manufacturing, offices and business park developments including the Goodman MFive Business Park.



LEGEND

-  MPE site
-  MPE Stage 2 construction area
-  Residential area
-  Rail Link (including 20m width and variable buffer)
-  Rail link (Stage 1 Proposal)
-  Watercourse
-  Existing Railway

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Figure 2-2 Local context of the Proposal

2.4 Description of the Proposal site

The Proposal site comprises around 67 hectares of land and is located mostly within Lot 1 in Deposited Plan (DP) 1048263 and Lot 2 in DP 1197707 (refer to Figure 2-3). The Proposal site is generally flat with direct frontage and access to Moorebank Avenue, a privately owned road that is currently accessible to the public.

The Proposal site has historically been associated with the Department of Defence, being used in the early 1900s as a training camp and as a military storage facility since 1944. The entire MPE Project site was sold by the Commonwealth in 2002, and until recently, was leased by the Department of Defence for use as the DSND site. Currently, the site is privately owned by SIMTA, the Proponent for the MPE Project.

As discussed in Section 2.2, the Department of Defence has vacated the Proposal site; however, the following infrastructure and features are still present:

- A number of existing buildings previously utilised by the Department of Defence, comprising a mixture of warehouses, offices and administrative facilities
- An internal road network and areas of large hardstand, typically comprising asphalt and concrete
- A relatively flat topography with a ridge which runs along the central portion of the MPE site, parallel to Moorebank Avenue. This ridge results in surface water drainage flowing in either an easterly direction towards Anzac Creek on the eastern side of the ridge or a westerly direction to the Georges River on the western side of the ridge.
- Planted vegetation along site boundaries, walkways, internal roads and areas of open space
- A primary access point, about one kilometre south of the intersection of Moorebank Avenue and Anzac Road and a number of additional general access points along Moorebank Avenue.

The current landform of the Stage 1 site, located on the south western portion of the MPE site, will be altered as part of the Stage 1 Proposal (currently subject to determination by NSW DP&E). The construction footprint of the Stage 1 Proposal partially overlaps the Proposal site to the immediate east and north of the Stage 1 site, and potentially along the eastern boundary of the Stage 1 site within the Operational area which have previously been identified within the Stage 1 Proposal EIS.

Within the Stage 1 Proposal construction footprint (including the area of overlap with the Proposal), all existing vegetation and buildings will be cleared and demolished to facilitate construction of an IMT and Rail Link, in accordance with the Stage 1 Proposal conditions of approval (currently subject to determination by NSW DP&E).

An overview of the Proposal site in the context of the MPE site and the Stage 1 Proposal is shown on Figure 2-2.

2.5 Legal description, ownership and consent

The Proposal site is mostly contained within Lot 1 DP1048263, wholly owned by SIMTA; however, a number of additional lots have the potential to be directly impacted by the Proposal. The land to which the Proposal will directly impact is subject to the refinement of the Proposal design, and will be confirmed and assessed in the EIS. A summary of potential lots affected by the Proposal is described in Table 2-2 and shown on Figure 2-3.

Table 2-2 Properties potentially affected by the Proposal

Lot	DP	Property address / description	Owner	Within MPE Stage 2 site footprint	Within Moorebank Avenue site
1	1048263	The MPE site	SIMTA	✓	x
1	1197707	The MPW site	Commonwealth of Australia	x	✓
2	1197707	Moorebank Avenue (south of Anzac Road)	Commonwealth of Australia	x	✓
4	1197707	Boot Land	Commonwealth of Australia	✓	x
3002	1125930	DJLU	Commonwealth of Australia	✓	x



LEGEND

- Rail link
- Watercourse
- Existing railway
- MPE Stage 2 operational area
- Ownership**
- Commonwealth of Australia
- Roads and Maritime Services
- SIMTA (Qube Holdings and Aurizon Holdings)

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Figure 2-3 Proposal ownership plan

3 PROPOSAL JUSTIFICATION, NEED AND ALTERNATIVES

The strategic justification, need for the Proposal and alternatives to the Proposal were broadly outlined in the MPE Concept Plan EIS. This section provides an update to that analysis, including consideration of updated or additional strategic planning documents, plans and policies where relevant.

Table 3-1 sets out the SEARs as they relate to the Proposal with regards to its need and justification, and where in this EIS these have been addressed

Table 3-1 SEARs – Proposal justification, need and alternatives

Section of SEARs	Where addressed in this EIS
General requirements	<p>The Environmental Impact Statement (EIS) must meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 including but not limited to:</p> <ul style="list-style-type: none"> • a statement of the objectives of the development, including consideration of the development’s consistency with the aims and objectives of relevant State policies and plans • a justification of the development taking into consideration the objects of the EP&A Act
1. Statutory and strategic context	<p>including but not limited to addressing the relevant planning provisions, goals and strategic planning objectives in the following:</p> <ul style="list-style-type: none"> • NSW 2021; • A Plan for Growing Sydney 2014 • State Infrastructure Strategy 2012-2032; • Railing Port Botany’s Containers; • NSW Freight and Ports Strategy 2013; • NSW Long Term Transport Masterplan; and • National Land Freight Strategy.

3.1 Strategic justification

There has been strong and consistent policy support at both the State and Commonwealth Government level for the expansion of the freight rail network across NSW and the development of an IMT facility at Moorebank since 2004. This section of the EIS demonstrates that the Proposal responds to, and strongly aligns with, the aims and objectives of each of the relevant existing and draft State and Commonwealth policies and plans.

3.1.1 National strategic planning and policy framework

Australian Infrastructure Plan

The *Australian Infrastructure Plan* (AIP) (Infrastructure Australia, 2016a) provides a positive reform and investment roadmap for Australia, and sets out the infrastructure challenges and opportunities that Australia faces over the next 15 years. This plan also provides the solutions required to drive productivity growth and provides 78 recommendations for reform with the aim of addressing existing infrastructure gaps.

The AIP states that '*the efficient movement of freight into, out of and across Australia is critical to the nation's ongoing productivity, growth and competitiveness*'. The Australian Infrastructure Audit, on which the AIP is based, predicted substantial growth in the national freight task, with containerised trade predicted to increase by 165 per cent to 17,997,000 tonnes by 2031 and non-containerised trade to increase by 138 per cent to 2,098 million tonnes by 2031. The AIP notes that freight networks and supply chains are subject to a number of constraints, including missing links, pinch points, operational restrictions and last mile access challenges. Improving the efficiency and capacity of Sydney's IMT network through the provision of an IMT facility at Moorebank would support the AIP by improving the capacity and efficiency of containerised freight movements through Port Botany and the South West freight catchment.

Infrastructure Australia's *Infrastructure Priority List* (Infrastructure Australia, 2016b) was released concurrently with the AIP to support and recommend specific investment areas. The *Infrastructure Priority List* is designed to guide private and public investment that represent the most productive use of infrastructure funding, while solving our most critical infrastructure problems. The *Infrastructure Priority List* used the *Australian Infrastructure Audit* (Infrastructure Australia, 2015) as the primary evidence base, working with State and territory governments, industry and other stakeholders to establish priorities for investment in two categories:

- Initiatives: infrastructure priorities that have been identified to address a nationally significant need, but require further development and rigorous assessment to determine and evaluate the most appropriate option for delivery.
- Projects: infrastructure priorities that have undergone a full business case assessment by Infrastructure Australia, will address a nationally significant problem, and deliver robust economic, social or environmental outcomes.

A business case assessment for the Moorebank IMT was undertaken by Infrastructure Australia under the AIP. The assessment stated that the Moorebank IMT aligned with the AIP's strategic priorities of 'increasing Australia's productivity' and 'expanding Australia's productive capacity'. The summary included in the business case assessment noted that:

- An intermodal terminal could be economically viable, particularly given the growth potential of Port Botany, the long timeframes for alternative road transport improvements such as WestConnex, and the likely continued congestion in the immediate Port Botany area.
- The use of alternative ports to Port Botany is not commercially viable because of the greater distances to the Sydney metropolitan destinations and economies of scale of stevedoring.
- An IMT at Moorebank was chosen as there is no other potential terminal site in the Sydney basin that has the same locational advantages, size, short-term availability, existing road and rail connections and ability to meet long-term industry needs at the time of the assessment.

The business case assessment was approved by the Infrastructure Australia board in February 2015. The business case assessment noted that the local environment of the Proposal is complex and relies on investments made by others, including the NSW Government ensuring adequate connections between Moorebank Avenue and the M5 Motorway. 'Moorebank Intermodal Terminal road connection upgrade' is identified as an initiative on the *Infrastructure Priority List*. In summary, the development of an IMT at Moorebank, as included in the Proposal, is consistent with the priorities included in the AIP.

National Land Freight Strategy

The National Land Freight Strategy (Commonwealth of Australia, 2012) is a partnership between Commonwealth, State, Territory and local governments and industry to deliver a streamlined, integrated multimodal transport and logistics system, capable of efficiently moving freight throughout Australia.

The objective of the National Land Freight Strategy is to improve the efficiency of freight movements across infrastructure networks, minimise the negative impacts associated with such freight movements and influence policy making relevant to the movement of freight.

The long-term outcomes of the National Land Freight Strategy are to ensure:

- An efficient, productive and competitive national land freight system
- A sustainable land freight system that responds to growth and change
- That policies affecting land freight are aligned and coherent across governments.

The National Land Freight Strategy includes Moorebank IMT as a case study, noting that it will provide capacity to accommodate increases in container trade at Port Botany while delivering \$10 billion in economic benefits including improved productivity, reduced business costs, reduced road congestion and better environmental outcomes. It also notes that as a result of the Australian Government unlocking land of strategic importance to enable the development of the IMT, Sydney will be better positioned to handle the growth in the freight task as it occurs, rather than waiting until existing infrastructure has reached capacity. The Proposal is considered to be consistent with the objectives of the National Land Freight Strategy.

National Ports Strategy

The *National Ports Strategy* (Infrastructure Australia, 2011) was developed to drive the development of efficient, sustainable ports and related freight logistics that work towards an economically, socially and environmentally sustainable future. The main objective of the National Ports Strategy is to facilitate trade growth and improve the efficiency of port-related freight movement across infrastructure networks by committing to, and applying, best-practice policy making and planning. The *National Ports Strategy* was endorsed by the Council of Australian Governments in July 2012.

Ports are considered critical to the productivity and economic growth of Australia and as such, there is a need for a more collaborative approach to the management of supply chains and integrated planning to increase efficiencies. The objectives of the *National Ports Strategy* are to facilitate trade growth and improve the efficiency of port-related freight movement across infrastructure networks. Item 1.3 of Appendix A: Best practice guidelines – master planning and execution of the *National Ports Strategy* provides guidance for each metropolitan area to identify the inland IMTs, industrial/warehousing lands or other nodes that generate substantial amounts of port related freight traffic.

The *National Ports Strategy* provides background to the growth of the south-west area of Sydney, increasing freight demand and the need for IMTs to maintain the rail modal share of container freight from Port Botany. Maintaining or potentially increasing the rail mode share of container freight movements in the future would improve the efficiency of port-related freight movements across Sydney.

The *National Ports Strategy* has been developed to encourage and share best-practice and it identified the need to improve the efficiency of port-related freight movements across the infrastructure network, which aligns with the Proposal objectives.

3.1.2 NSW Strategic planning and policy framework

“Navigating the Future” NSW Ports’ 30 Year Master Plan

“*Navigating the Future*” NSW Ports’ 30 Year Master Plan (NSW Ports Master Plan) (NSW Ports, 2015), was prepared by NSW Ports in 2015 and, in conjunction with the Sustainability Plan, sets out a vision for achieving sustainable and efficient port supply chains in NSW for the next 30 years.

This Master Plan sets out five objectives to drive a sustainable future for the port supply chains:

- Provide efficient road and rail connections to the ports and IMTs
- Grow rail transport of containers
- Use land infrastructure efficiently
- Grow port capacity
- Protect the ports and IMTs from urban encroachment.

Under the ‘grow rail transport of containers’ priority, the NSW Ports Master Plan notes that maximising the transport of containers by rail between Port Botany and Sydney metropolitan intermodal terminals will be essential for cost-effective, efficient and sustainable container distribution through Sydney. It also notes that Port Botany would not be able to achieve an annual container throughput of seven million TEU without rail becoming a more significant component of the port logistics chain. The NSW Ports Master Plan includes the development and commencement of operations of the Moorebank IMT as an action required for the effective implementation of this plan.

Further the NSW Ports Master Plan identifies that intermodal terminals are critical to the logistics chain, and essential if we are to increase the volume of containers moved by rail. The strategy for growing intermodal terminals with dedicated freight rail connections is well recognised as necessary to efficiently service the container transport needs of a growing Sydney. The NSW Ports Master Plan notes that intermodal terminals facilitate landside transport-logistic efficiencies and offer a sustainable and practical transport solution to meet the challenge of Sydney’s growing freight volume. It also states that where warehouse/distribution centres adjoin an intermodal terminal, containers can be transferred between the warehouse and the intermodal terminal without travelling on the external network. Transport operators that use intermodal terminals reduce the distance travelled by their trucks, resulting in a more effective and efficient use of their truck fleet.

It is noted in the NSW Ports Master Plan that the capacity of the intermodal terminals that service Port Botany (Cooks River, Minto and Yennora) do not have sufficient capacity to meet the forecast freight task and that future intermodal terminals (all with dedicated freight rail access), including Moorebank will be critical to meeting future rail demand. The Proposal aligns with the vision of the NSW Ports Master Plan and would assist in meeting the objectives included in the Plan to drive a sustainable future for port supply chains.

A Plan for Growing Sydney

A Plan for Growing Sydney (NSW DP&E, 2014) replaces the draft Metropolitan Plan for Sydney. *A Plan for Growing Sydney* is the NSW Government's 20 year plan to develop a competitive economy with world-class services and transport, to deliver greater housing choice to meet Sydney's changing needs and lifestyles, to create communities that have a strong sense of wellbeing, and to safeguard the natural environment.

Direction 1.4 of *A Plan for Growing Sydney* identifies transforming the productivity of Western Sydney through growth and investment is pivotal to Sydney's long term prosperity. The investment from the private sector associated with this Proposal will assist in providing growth opportunities in Western Sydney.

Direction 1.5 of *A Plan for Growing Sydney* identifies the need to enhance capacity at Sydney's gateways and freight networks. IMTs, and the associated warehousing and distribution facilities, play an important role in the broader freight network, allowing for greater movements of freight by rail and assisting to reduce road congestion, especially around Sydney's ports.

State Infrastructure Strategy 2012-2032 and State Infrastructure Update

The *State Infrastructure Strategy 2012-2032* (State Infrastructure Strategy) (NSW Department of Premier and Cabinet, 2012) is a 20 year strategy which outlines the State Government's short, medium and long term initiatives concerning infrastructure delivery and reform. The State Infrastructure Strategy identifies and prioritises the delivery of critical public infrastructure to drive productivity and economic growth.

The *State Infrastructure Strategy* identifies strategic infrastructure options to meet the challenges of population growth and substantial increases in freight volumes. It identifies that rail's share of the freight task has reduced over the last 10 years, partially due to relative cost of moving freight by road over short distances. The strategy identifies that rail could be cost competitive or cheaper than road transport if certain changes were implemented. These changes include the provision of IMTs and warehousing in the vicinity of IMTs.

The *State Infrastructure Strategy* identifies transport access to and from Sydney's international gateways as a short-term infrastructure priority. The development of an IMT at Moorebank in the next five years, and supporting infrastructure in five to ten years' time, are principle recommendations of the strategy.

An update to the State Infrastructure Strategy (*State Infrastructure Strategy Update*, NSW Department of Premier and Cabinet, 2014) was prepared by Infrastructure NSW at the direction of the Premier to guide how the proceeds from the Rebuilding NSW initiative could be spent. The State Infrastructure Strategy Update makes 30 recommendations to Government on the next round of critical infrastructure for NSW, which prioritise reducing congestions, supporting population growth and stimulating productivity across Sydney and regional NSW.

As part of the update to the 'International gateways' section, under the strategic objective of 'connect Sydney and NSW regions to national and global markets and suppliers' there is a new key infrastructure recommendation to assess and prioritise projects that ensure efficient road connections from Port Botany to the Moorebank Intermodal Terminal as an opportunity to manage the growing freight demand. Further, the opening of new intermodal terminals at Moorebank and the expanded use of existing terminals would improve the economies of short haul rail freight.

The warehousing and distribution centre described in the Proposal will reduce freight movements on the external road network due to its proximity to the associated IMT. In turn this will assist in increasing the rail mode share of freight and is considered to align with the objectives of the State Infrastructure Strategy 2012-2032 and Update.

NSW Freight and Ports Strategy

The *NSW Freight and Ports Strategy* (Transport for NSW, 2013) (the Freight and Ports Strategy) explains how Transport for NSW will work with commercial interests across government to provide an efficient network and a framework for managing the growth in freight. It highlights short, medium and long term tasks to improve freight movement on the network. The Freight and Ports Strategy will inform government and commercial investment decisions across all modes of transport and allow for the alignment of purpose and aims to provide a transport network in NSW that allows the efficient flow of goods to the market.

The Freight and Ports Strategy predicts that the freight task in NSW will nearly double to 794 million tonnes by 2031. This projected increase highlights the need to ensure that the network keeps pace with growth, and that this growth is sustainable for the long term prosperity of the State. The Freight Strategy also identifies that there is an opportunity to shift more freight onto rail.

The Freight and Ports Strategy notes that the movement of more freight onto the rail network is essential to the success of the NSW economy, with rail freight playing a critical role in the NSW transport task for bulk and containerised freight. It is also noted in the strategy that the development of the intermodal terminal at Moorebank would positively impact on the efficient operation of the rail freight task.

To meet the challenges associated with the growing freight task, one of the aims of the Freight and Ports Strategy is to provide a transport network in NSW that allows for the efficient flow of goods to their market. The objectives of the Freight and Ports Strategy under Strategic Action 2– Network Capacity are the delivery of a freight network that efficiently supports the projected growth of the NSW economy and balancing freight needs with those of the broader community and the environment.

Action 2E of Strategic Action 2 of the Freight Strategy is to foster IMT network development. Metropolitan IMTs are critical to increase rail mode share and manage the rapidly growing import container trade. The existing capacity of IMTs in Sydney is inadequate to meet the growing demand for import and export container movements.

Task 2E-1 as part of Action 2E is to foster IMTs in metropolitan areas. The targeted outcome of this task is:

The development of new intermodal terminals in Enfield, Moorebank and Western Sydney will occur on sites that are supported by dedicated rail freight lines and adequate road connections. Rail lines to Port Botany will avoid interaction with passenger services on the shared network and facilitate 24 hour port, rail and terminal operations.

As the Proposal comprises the construction and operation of warehouse and distribution facilities to support the IMT Facility on the MPE site, it directly assists the achievement of this task. By constructing warehouses on the Proposal site, immediately adjacent to an IMT at Moorebank, the capacity of the freight transport network around Port Botany would be maximised, and would encourage more efficient business operations. In addition to this, the Proposal would include warehousing which would operate 24hrs 7 days a week facilitating for a 24/7 logistics chain which reduce impacts on passenger services thereby being consistent with the targeted outcome for the Freight Strategy.

NSW Long Term Transport Masterplan, 2012

The *NSW Long Term Transport Master Plan* (Master Plan) (Transport for NSW, 2012) presents the NSW Government's direction for transport planning and investment for the next 20 years. It identifies the key challenges that the NSW transport system must address to support the State's economic and social performance, and identifies a planned and coordinated set of actions to address those challenges.

Chapter 7 of the Master Plan addresses the need to support efficient and productive freight. This section also identifies the lack of metropolitan IMT infrastructure as a restriction to rail freight movement. Metropolitan IMTs are identified as critical to increasing the share of container freight moved by rail and to manage growing import container trade particularly in Sydney. The Master Plan identifies that 85 % of import containers are delivered to destinations within 45 km of Port Botany. IMT terminals in the metropolitan area therefore enable the delivery of container freight on rail close to major road links and end users.

IMT infrastructure has the potential to reduce congestion around the port and provides an opportunity to avoid bottlenecks occurring due to a single point of focus for port related road freight movements. It also provides some resilience in the system in the event of incidents causing blockages at the port.

In order to address this capacity issue, the Master Plan identifies an action to develop a metropolitan network of IMTs which would increase the share of freight that is transported by rail. While the development of the IMT at Moorebank will increase the share of freight that is transported by rail, the provision of warehousing and distribution facilities associated with this Proposal means that container freight movements are more efficient and would have less of an impact on the road network when compared to an IMT operating in isolation to warehouse and distribution facilities at another location. The Master Plan also identifies that when co-locating production or processing facilities with IMTs enables economies of scale to be achieved. The anticipated freight catchment for the Proposal is the south-western areas of Sydney and the facility would be located close to the M5 Motorway, consistent with the driver to deliver container freight on rail, close to major road links and end users.

NSW 2021: A plan to make NSW number one, 2011

NSW 2021: A plan to make NSW number one (NSW Department of Premier and Cabinet, 2011) (NSW 2021) is the NSW Government's 10 year strategic business plan, which sets priorities for action and guides resource allocation to deliver economic growth and critical infrastructure throughout NSW.

NSW 2021 includes the following goals applicable to the Proposal:

Grow employment by an average of 1.25% per year to 2020.

Goal 1 of NSW 2021 is to improve the performance of the NSW economy and critical to this is ensuring there are opportunities for fulfilling jobs that give people choices and financial security. The Proposal will create 1,408 full-time equivalent jobs related to the operation of the warehousing and distribution facilities helping contribute to the additional 100,000 new jobs in NSW by 2021. These jobs would be created in south western Sydney, the fastest growing subregion of Metropolitan Sydney.

Enhance rail freight movement – Double the proportion of container freight movement by rail through NSW ports by 2020.

Goal 19 of NSW 2021 is to invest in critical infrastructure. NSW 2021 states that the right infrastructure in the right places is essential to achieving economic growth, because it improved productivity and makes us more competitive. By investing in strategic and coordinated infrastructure to boost business confidence and help NSW reach its full potential, more job opportunities and choice will be created. Further, NSW 2021 notes that Infrastructure NSW (iNSW) will strongly encourage the involvement of the private sector to further boost infrastructure activity.

One of the targets of Goal 19 is to enhance freight rail movement, by doubling the proportion of container freight movement by rail through NSW ports by 2020. Under this target, it is noted in NSW 2021 that moving freight quickly and economically by rail through ports is critical to accommodate high forecasted growth in freight movements, particularly through Port Botany. One of the actions to achieve this target in NSW 2021 is to develop the NSW Freight Strategy, integrated with strategic land use and transport planning.

The Proposal, and its proximity to the associated MPE IMT, would provide the facilities to enable the effective and efficient transport, and subsequent storage, of freight via rail. As such, the Proposal would result in an increase proportion of freight movements made by rail and assist in meeting the rail freight target. The Proposal would then allow the effective distribution of freight from this location to south-western Sydney.

Increase expenditure on critical NSW infrastructure

NSW 2021 states that investment in infrastructure is needed right across NSW and that private sector involvement will be encouraged to ensure infrastructure is delivered on time and on budget. The Proposal is considered critical infrastructure as without it, the IMT would not be as effective in relieving congestion and increasing the rail mode share of freight. The Proposal is predominately privately funded and provides an example of confidence and certainty to the private sector, encouraging infrastructure investment in NSW.

The facility would also contribute to achieving the broader land use and planning objectives, including:

- Reducing freight demand on the road network within Sydney, by its proximity to the rail linked IMT, helping to reduce travel times and improve road safety due to efficiency improvements along the M5 Motorway.

Draft South West Subregional Strategy, 2009

The *South West Subregion Draft Subregional Strategy* (Subregional Strategy) was prepared by the State Government in 2009. While it has not been formally adopted, it provides subregional actions to deliver the objectives of the Sydney Metropolitan Strategy.

The Subregional Strategy recognises the importance of improving the efficiency of freight transportation from Port Botany to increase port capacity. The Subregional Strategy acknowledges the need for new major IMTs to service south-west Sydney in order to meet the goal of increasing rail freight movements from Port Botany. It also identifies Moorebank as offering a strategically appropriate location for a new major terminal to deliver this goal, being serviced by the SSFL.

The importance of delivering an IMT within Moorebank that connects to the SSFL and meets the growing demands of freight movements in the west of Sydney is outlined in the Subregional Strategy:

The State Government regards the proposal for a transport terminal at Moorebank as a key component in meeting Sydney's intermodal capacity needs. [p.30]

To ensure that this IMT functions as desired, the Proposal provides the infrastructure needed to effectively store and manage the freight being delivered by rail as well as the facilities to efficiently distribute goods throughout the south-west Sydney freight catchment.

The Subregional Strategy also recognises the significance of the employment lands within Moorebank and their capability to accommodate additional industrial activities. Moorebank is identified as providing 200 ha of Category 1 Employment Lands to service the subregion, being *land to be retained for industrial purposes* (p.28). The precinct is marked to provide a number of key industrial functions, including freight and logistics.

The Proposal is consistent with the Subregional Strategy as it would deliver approximately 200 jobs during the peak construction period, and 1,408 full time equivalent staff for the warehouses during operation, contributing to the delivery of jobs within Western Sydney and the South West subregion. Further, the Proposal would deliver warehousing to support the planned IMT for the freight industry. It is located within close proximity to the M5 Motorway, the M7 Motorway and the SSFL, providing access to both road and rail networks.

Actions for Air, 2009

Action for Air (DECCW, 2009b) is the NSW Government's 25 year plan to improve the air quality in the greater metropolitan region. The plan commenced in 1998 and is a whole-of-government strategy covering all major contributing sources of air pollution. *Actions for Air* was reviewed every three years through a clean air forum and updated to take into account changing circumstances and information. Clean Air Forums were held in 2001, 2004 and 2007 with updates in 2002, 2006 and 2009.

The aims of the *Actions for Air* plan are to:

- Reduce emissions so that we comply with the State Plan's cleaner air targets, that is, meeting the national air quality standards for six pollutants as identified in the Air NEPM
- Reducing the population's exposure to air pollution and the associated health costs,

Action for Air identifies ozone and particles as the biggest air quality challenges for the Sydney metropolitan region, and that motor vehicles are the biggest contributor to these problems. The plan also nominates actions and objectives specifically targeted towards reducing emissions from motor vehicles. The Proposal would assist meeting this goal by facilitating a mode shift from road to rail for freight movements which would thereby contribute to a reduction in vehicle emissions.

An *Air Quality Impact Assessment* (Appendix M of this EIS) has been prepared to assess the local and regional air quality impact associated with the Proposal. As a result of the operation of the Proposal, the maximum increase in Particulate Matter (PM) PM₁₀ and PM_{2.5} is minor. There are no additional exceedances of the short term air quality impact assessment criteria and the Proposal is therefore considered to present a low risk with regards to air emissions.

Railing Port Botany’s Containers, 2005

Railing Port Botany’s Containers: Proposals to Ease Pressure on Sydney’s Roads (Freight Infrastructure Advisory Board (FIAB), 2005) was prepared by the FIAB to examine potential methods to increase the rail share of freight throughput at Port Botany and presented to the Minister for Planning and Infrastructure for consideration.

The report included 23 recommendations to address the movement of import and export containers within the Sydney basin and the opportunities to increase the movement of freight by rail. The recommendations of the FIAB were reviewed by the Infrastructure Implementation Group on behalf of the NSW Government, to determine priorities for implementation. Specific recommendations that have particular relevance and consistency to the Proposal with the recommendations of the report are provided in Table 3-2.

Table 3-2 Relevant recommendations from Railing Port Botany’s Containers

Recommendation	Relevance to Proposal
The 40% rail share target must be met and if possible exceeded.	The Proposal would assist in a mode shift from road to rail by providing warehouse and distribution facilities which support the effective and efficient operation of an IMT facility at Moorebank.
The NSW Government take all necessary steps to ensure that Sydney has sufficient additional IMT capacity to meet a rail freight share of 40 %.	
Develop the major, new terminals at Enfield, Moorebank and Eastern Creek (including adequate provisions to allow common user and open access operations).	<p>The Proposal provides warehouse and distribution facility which would support the development and operation of an IMT at Moorebank by the private sector.</p> <p>The Proposal site allows for appropriate buffer zones between residential areas and does not preclude the development of public recreation facilities along the Georges River.</p>
Regard Moorebank as a key component in meeting Sydney’s IMT capacity needs	
Ensure that the Moorebank site is secured for IMT development by the private sector and be prepared if necessary, on a transitional basis, to use funds from the Freight Infrastructure Charge for this purpose.	
Commence planning for the site’s development by the private sector as an IMT with the capacity to handle at least 500,000 TEUs annually.	
Work with the Australian Government to move the SME from the site as soon as possible.	
Develop a business model for the acquisition and development of the site in a way that allows the private sector to bring forward the terminal’s development.	
Ensure that access to the Moorebank site is delivered in a way that does not compromise the future expansion of the East Hills passenger line.	

Recommendation	Relevance to Proposal
Ensure planning for Moorebank includes design buffers to reinforce the site's separation from residential development and provide public recreation facilities along both sides of the Georges River.	

3.2 Proposal need

An analysis of the need for the Proposal, the freight demand and the anticipated catchment for an IMT at Moorebank was undertaken as part of the MPE Concept Plan Approval. This section provides a summary of the need for the Proposal and any relevant updates to the information presented in the MPE Concept Plan EIS.

Condition 1.12 of the Concept Plan Conditions of Approval notes that *'the warehousing and distribution facilities must only be used for activities associated with freight using the rail intermodal'*. The need for the Proposal has been therefore considered in the context of the wider MPE Project, in that the warehouse and distribution facilities will be serviced by the IMT at Moorebank.

3.2.1 Container freight demand

Forecast growth in international and interstate freight movements through Sydney and increased industrial and commercial development in west and south-west of Sydney have prompted government and industry to consider new strategies for alleviating constraints on freight movement. Insufficient IMT rail freight capacity is recognised as a key barrier to the future development of Sydney and improvements in national productivity as identified in national and state strategies (discussed above).

The Freight and Ports Strategy identified more than 72 different commodities transported in NSW. The origins and destinations of these commodities across NSW regions was modelled. It was noted as part of this exercise that in the Sydney metropolitan area, export and import products are typically in containers and transported through Port Botany. Products range from agricultural exports to imported consumer goods such as electronics and whitegoods. The existing throughput of two million TEUs per annum at Port Botany is projected to increase to a total of seven million TEU by 2031.

Currently, rail is used for about 14 % of the container movement task to and from Port Botany. The metropolitan freight network is currently underutilised, with less than 30% of available capacity used for the movement of containers. The reasons for the low mode share relate to reliability, available intermodal capacity, time taken and cost (Freight and Ports Strategy). Maximising the transport of containers by rail between Port Botany and Sydney metropolitan intermodal terminals will be essential for cost-effective, efficient and sustainable container distribution throughout Sydney.

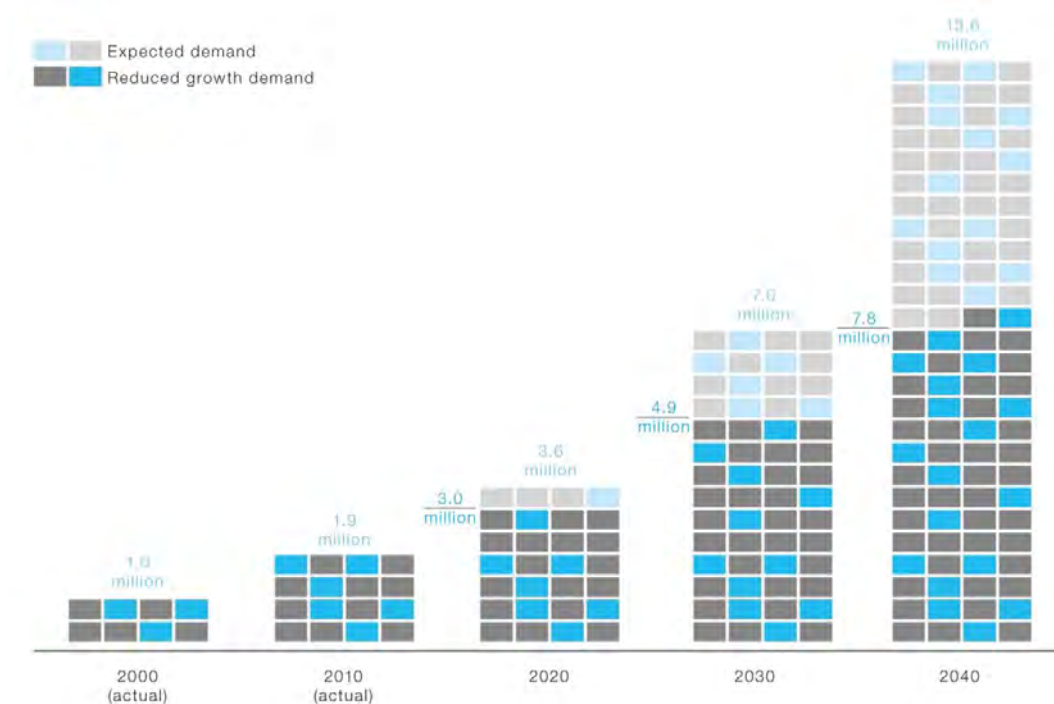
An IMT at Moorebank would respond to Sydney's need for more freight handling capacity and the Proposal is a critical component through the delivery of warehousing that will optimise operation of the IMT and thus enable more containerised freight to be moved by rail.

3.2.2 IMEX demand

Port Botany accounts for almost all containerised IMEX trade through NSW ports. Total container trade through Port Botany in 2013-14 was 2.2 million TEU, up from 2.1 million TEU in 2012-13.

Full container imports in 2013-14 were 1.1 million TEU, while full container exports were 0.44 million TEU, a decrease of 1.6 % from 2012-13. The export of empty containers was 0.66 million TEU, an increase of 8.4 % on 2012-13.

Compound annual container growth through Port Botany has been over seven per cent for a ten year period to 2012. However, current forecasts are slightly more conservative with a forecast average annual growth rate of 6.2 % over the period 2014-2019. In November 2012 the *Ports Assets (Authorised Transactions) Act 2012* came into force. The purpose of the Act is to provide for the restructuring of arrangements for the operation and regulation of Port Botany. The Act removed the 3.2 million TEU throughput capacity limit at Port Botany, meaning that port TEU throughput is constrained only by the physical capacity of the port to handle containers and market demand. At the projected TEU throughput growth of 6.2 % per annum (Port Authority of NSW forecasts) the 3.2 million TEU capacity is expected to be reached in 2020. Over the longer term, the NSW Freight and Port Strategy predicts that total throughput at Port Botany is forecast to reach seven million TEU by 2030, as shown in Figure 3-1.



Source: NSW Freight and Ports Strategy, NSW Government 2013

Note: 'Expected demand' forecasts are the NSW Government's expectation as to the most likely growth forecast, and the 'reduced demand' scenario represents a scenario where growth is lower.

Figure 3-1 NSW container volume forecasts 2020-2040

Projected growth in trade volumes will lead to an increase in freight movements across the Sydney Greater Metropolitan Area. This will pose substantial challenges for the supply chain which is currently dominated by road transport. It is estimated that only 14% of container freight through Port Botany is currently transported by rail. To meet these challenges and to allow for increased use of rail, it is considered necessary to invest in new IMT capacity and associated warehousing and distribution facilities at locations accessible to freight rail lines.

3.2.3 Business as usual – existing capacity vs need

By 2031, the freight task in NSW is predicted to double to 784 million tonnes and at Port Botany, the existing throughput of two million TEUs per annum at Port Botany is projected to increase to a total of seven million TEU by 2031. The implications of this growth for ports, road and rail networks, intermodal terminals and freight corridors are significant.

Capacity across the freight network varies, but key parts of the network are already under pressure to match demand. Opportunities exist to shift more freight onto rail and this is a priority for NSW Government, as evidenced through the majority of transport infrastructure-related strategic policy documents identifying targets around this action (refer to Section 3.1.2 for more information).

Currently rail is used for 14% of the container movement task to and from Port Botany and the metropolitan freight network is currently underutilised with less than 30% of available capacity used for the movement of containers. The low mode share can be attributed to reliability, available intermodal terminal capacity, time and cost. It is acknowledged throughout the majority of strategic planning and policy documents that the movement of freight onto rail in NSW is critical to the success of the NSW economy.

The development of IMTs at Enfield, Moorebank and Western Sydney will contribute to improving the freight movements to and from port botany, to enable the NSW economy to grow with the growing freight task. The primary function of IMTs such as the MPE Project at Moorebank is to facilitate the import container trade. In this context, intermodal terminals function like inland satellite ports which effectively reduce congestion to and from Port Botany.

The Proposal, which includes the construction of warehouse and distribution facilities to support an IMT at Moorebank, would provide freight distribution functionality from the IMT, thereby minimising the need for heavy vehicles to travel to Port Botany and contributing to improving road congestion. By including warehouses and distribution facilities at the same location as the IMT would contribute to providing additional capacity on the freight transport network, thereby maximising the capacity of Port Botany and encouraging more efficient business operations.

3.2.4 Container distribution – origin and destination

Of critical importance in planning and developing IMTs within Sydney is an understanding of where containers have their origins and destinations. The development of IMTs to provide rail supply capacity must be in those areas where the majority of freight activity is generated. There is a strong connection between the location of economic activity, population and container destination, and this connection is not expected to change significantly over the next 30 years. With Sydney's population forecast to grow, the metropolitan area will remain the origin/destination for the majority of Port Botany's container throughput.

Approximately 90% of Port Botany's container throughput has its origin/destination within the metropolitan Sydney area (i.e. within a 60 km radius of Port Botany). Of the full container exports, approximately 65% are packed in the metropolitan area and 35% in regional NSW/Newcastle (e.g. cotton, grain, meat, aluminium etc.). By 2040 the Port Authority of NSW forecast that 92.5% of containers would have a destination in the Sydney metropolitan area.

Since Port Botany was established in the late 1970s, it attracted a number of associated container handling industries, such as freight forwarding, transport, warehousing and container packing/unpacking. Over time, as a result of limited land availability and increased land value in the Botany/Mascot area, many of the industries associated with container receipt and distribution have migrated away from the port area, to where land is more available and more affordable, and nearer to their end-clients.

Sydney's employment distribution has been changing with a distinct shift westwards of Sydney's manufacturing, employment, wholesale and warehousing distribution industries. The consequence of this redistribution, aggregated with trade growth, has been a marked increase in truck movements, and over reliance on roads to manage Port Botany container freight logistics.

On various occasions over recent years, origin/destination studies have been commissioned in order to better understand the locations of import container points of delivery and of export container collection, to help identify infrastructure needs associated with developing freight areas. The methodology used incorporated the use of statistical data regarding areas of population and employment, as well as statistical data relating to the physical points on cargo origin (exports) and destination (imports). This information was calibrated against information garnered from trucking company surveys. Over the last seventeen years at least five such studies have been undertaken:

- Sydney Ports Corporation, *Logistics Review 2010/2011*, May 2012
- Sydney Ports Corporation/Thompson Clarke, *Metropolitan Sydney International Container Origin/Destination Analysis*, August 2010
- Sydney Ports Corporation/University of Victoria, *Container Origin and Destination Study*, 2010
- Sea Freight Council of NSW/Jays Corporate Services, *NSW Import Export Container Mapping Study*, February 2004
- Sydney Ports Corporation/Connell Wagner, *Port Botany Origin-Destination Study*, July 1998.

The anticipated catchment area for the MPE Project is South West Sydney including Moorebank, Liverpool, Prestons, Ingleburn, Minto, Campbelltown, Camden as well as the future South West Growth Centre, which is centred on Leppington.

Each of the above origin/destination studies confirm that the catchment area as defined for the MPE Project is growing as industry and employment migrates west. The latest origin/destination study conducted by Sydney Ports (now the Port Authority of NSW) in 2011 and published in 2012, showed that the MPE Project catchment area accounts for 15% of Port Botany's import trade by destination. Based on current throughput this equates to an existing catchment of 300,000 TEUs per annum increasing to one million TEUs per annum in the long-term. As the South West Growth Centre is developed, it is forecast the MPE Project catchment area would increase from 15% of Port Botany imports by destination, to around 20%.

To maintain the rail share of 14%, let alone to achieve an increase to the targeted 28%, additional metropolitan IMT capacity is needed, located in proximity to those catchment areas where import/export freight has its origin/destination. This is particularly relevant for the growing region of South West Sydney, as evidenced in key NSW Government reports. The construction and operation of warehouses and distribution facilities as part of the Proposal would support the shift of more freight onto rail from Port Botany.

Indeed the FIAB to the then Minister for Planning, *Railing Port Botany's Containers* (2005), recommended that Government target a rail mode share of 40% and that in order to cater for this volume that large-scale IMTs be developed at Enfield, Moorebank and eventually Eastern Creek.

A summary of the container origins and destinations for the proposed IMT facility is depicted in Figure 3-2.

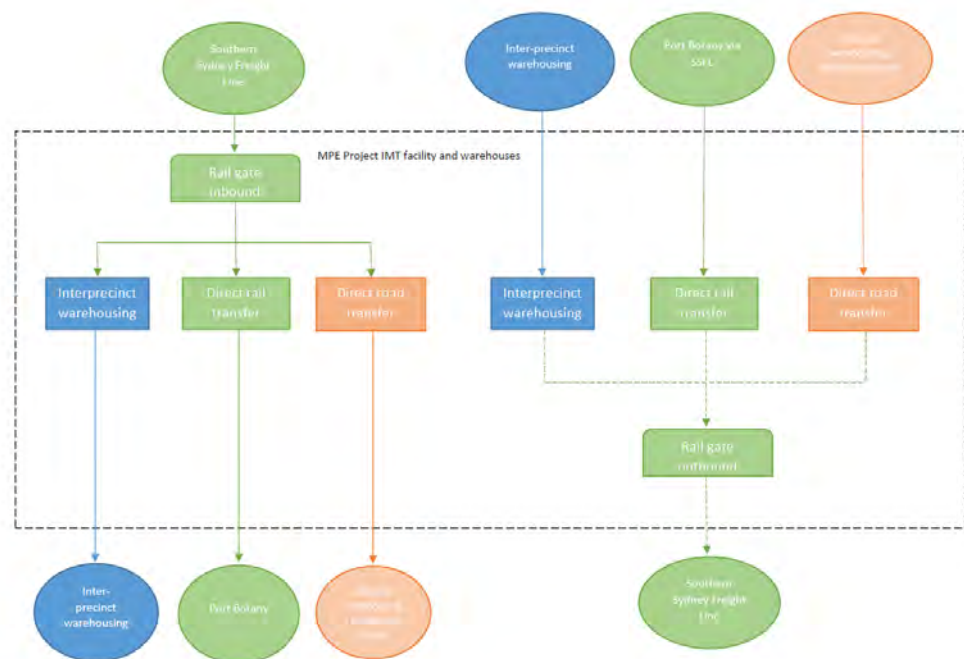


Figure 3-2 IMT facility container movements

3.2.5 Proposal benefits

Both Commonwealth and State government policy have indicated the strategic importance of improving freight transportation throughout NSW (and Australia) and, more specifically for the development of an IMT facility at Moorebank since 2004. Further, with the recent long term leasing of Port Botany/Kembla, and associated increase to the container throughput limits, there is added importance placed on IMTs with their operation being critical, especially in increasing the rail mode share and reducing truck movements on already constrained road networks throughout Sydney.

In addition to its strategic importance, the MPE Project, including the Proposal, is considered to be in the public interest, by generating a number of economic, social and environmental benefits for the community and economy, including:

- Economic benefits: The unit costs of transporting containers by rail would be reduced, thereby increasing the share of freight movements by rail. This would improve productivity, reduce operating costs, increase reliability, reduce costs associated with road damage, congestion and accidents, and lead to better environmental outcomes. The Proposal would increase operational and cost efficiencies for the handling, storage and distribution of freight
- Job creation: The Proposal would result in the creation of approximately 200 construction employment opportunities during the peak construction period of the Proposal and 1,408 full time equivalent staff for the operation of the warehousing area
- Improved environmental outcomes by contributing to reducing road congestion: the introduction of an IMT at Moorebank would result in fewer truck journeys every day (to and from Port Botany), resulting in reductions in greenhouse gas emissions, fuel consumption and other air pollution and potential increases in road network performance around Port Botany
- Social benefits through reducing road traffic and associated noise along key road freight routes between Moorebank and Port Botany
- Easing the Port Botany bottleneck to enable the Port to more effectively cope with future growth in container trade and provide large scale freight capacity

The Proposal would likely result in some short-term adverse, localised impacts during construction; however, these impacts would be minimised through the development and implementation of construction environmental management plans and careful planning of the construction program and methodology. Operational impacts have been predicted throughout this EIS and would be further investigated, where necessary, to confirm the appropriate mitigation measures, or where relevant, design refinements. This EIS includes a suite of mitigation measures that aim to ensure the best possible environmental outcomes are achieved during its construction and operation.

3.2.6 Relationship to the adjoining development

Approval has been granted for the Moorebank Precinct West (MPW) (formerly the MIC Project) Concept Plan which includes a separate intermodal terminal and associated warehousing (the MPW Project) on the adjoining MPW site, previously occupied by the SME. The MPW Project is for the development of an intermodal terminal facility and warehousing linked to Port Botany and the regional freight network by rail. Stage 2 of the MPW Project includes the construction and operation of an intermodal terminal (IMEX) with capacity for 500,000 TEU throughput, which is anticipated to commence operations in 2020.

The MPW Project would serve the same freight catchment area in Sydney's west and south-west. The intended freight catchment has an indicative capacity of one million TEU. This one million TEU represents a cumulative capacity, or total freight capacity, for IMTs located at Moorebank (with the exception of proposed interstate freight transport being included as part of the MPW Project).

On 5 December 2014, MIC and SIMTA announced their in-principle agreement to develop the Moorebank IMT on a whole of precinct basis. This agreement is subject to satisfying several conditions which both parties are currently working towards.

Despite its close proximity to the MPW Project and the in-principle agreement, the Proposal remains a viable standalone operation irrespective of the undertaking of surrounding development and, at this point in time, is unrelated to and independent of such other development.

Consideration and assessment of the potential cumulative impacts associated with the construction and operation of the Proposal with the MPW Project is detailed in Section 18 of this EIS.

3.3 Proposal alternatives

The potential alternatives to the Proposal were considered as part of the MPE Concept Plan EIS. As such, this section provides an overview of the do-nothing option and locating an IMT and associated warehousing at an alternative location, as well as the Proposal design options and refinements.

3.3.1 Do nothing

Section 3.2 clearly identifies the strategic need for the provision of an IMT and supporting warehouse and distribution facilities located in Moorebank that can provide distribution capacity to the south west freight catchment.

While the 'do nothing' option would result in a reduction of localised environmental impacts around the Proposal site, this option would not improve freight transit for outward or inward bound freight movements between Port Botany and South West and Western Sydney, interstate or intrastate. Similarly, it would not deliver any improvements to general transit conditions on the M5 Motorway or reductions in greenhouse gas emissions from diesel trucks between Moorebank and Port Botany as heavy vehicles would still need to travel to and from Port Botany to receive freight received at the Port. Furthermore, it would not provide temporary and long-term employment opportunities within the region.

As such, the 'do nothing' option is not considered to be a feasible alternative to the Proposal.

3.3.2 Alternative sites

There are limited alternative options for a viable IMT and warehousing within the Sydney metropolitan area. IMT facilities are ideally located to meet the following criteria:

- Close proximity to a dedicated rail freight line and the major road network
- Land zoned for industrial purposes
- Separated from sensitive land uses such as residential
- Within or close to the catchment for which there is a demand.

To this end, the proposed site represents an ideal position for the proposed facility as:

- It is adjacent to existing industrial areas, and is in a central location relative to major freight markets in the west and south west of Sydney
- It is located near to the South West Growth Centre
- It is in proximity to major road and rail freight corridors (SSFL, M5 Motorway, near the M7 Motorway and Hume Highway)
- It is situated in close proximity to the SSFL, a dedicated freight rail line providing a direct link to the interstate freight network and a direct link to Port Botany

- There is a direct intersection linking the adjacent Moorebank Avenue to the M5 Motorway
- Buffers are provided between the facility and nearby residential areas
- It is within the catchment for which there is a demand, resulting in minimal use of road transport between origins/destinations and the IMT
- It is located a sufficient distance from Port Botany to make rail a commercially viable alternative to road for movements to and from Port Botany
- It is large enough to handle the number of containers expected and has the space required for the associated warehousing, which will increase the efficiency of the freight service offered and therefore increases the attractiveness of the terminal and its potential to get more freight onto the rail network.

The location has also been identified in both state and federal strategic planning and policy documents (refer to Section 3.1) as the best, and only location for an IMT and associated warehousing to service a defined catchment in South-Western Sydney.

Further the MPE site has been granted Concept Plan Approval, for the development of an IMT and therefore is considered suitable for the development.

Other potential IMT locations across Sydney have been proposed at Eastern Creek, Badgerys Creek in north-west Sydney, and St. Marys in western Sydney. Both the Eastern Creek and Badgerys Creek projects are currently largely undefined and are unlikely to be developed in the near future; requiring significant investment in transport infrastructure to connect to the rail network (MIC, 2013). A preliminary environmental assessment was issued to the NSW DP&E for an intermodal terminal and rail link, with an operating capacity of 301,000 TEU throughout at Forresters Road, St. Marys. Given the rapid growth rate in container throughput at Port Botany these IMTs, if developed, would not alone solve the short-medium term freight demand by rail.

The distribution of freight from the warehouses to be constructed as part of the Proposal is different to the freight catchment that of the proposed Eastern Creek IMT and associated warehouse and distribution facilities. The operation of the Eastern Creek IMT facility would not alleviate the need for an IMT in Moorebank.

3.3.3 Proposal design options

The location of the Proposal within the broader MPE site was determined based on the location of the IMT and proximity to Moorebank Avenue to enable access to and from the site by road. As such, the Proposal occupies the northern and eastern portions of the MPE site. Possible refinements made throughout the assessment of the Proposal are discussed in Section 3.3.4.

Design options considered at the commencement of assessment for the Proposal, which resulted in changes to the MPE Concept Plan EIS site layout, include the following:

- Movement of the ancillary freight village to the north-western corner of the Proposal site
- Modifications to traffic circulation throughout the Proposal site
- Size and configuration of warehousing within the MPE Stage 2 site
- Dimensions and vertical alignment for the Moorebank Avenue upgrade.

Location of freight village

Section 2.7 of the Concept Plan EA included the provision of ancillary terminal facilities (i.e. a freight village) in the north-eastern corner of the MPE site, adjacent to the northern site boundary. During the design development of the Proposal, it was identified that the operation of the freight village could be optimised by moving it from the north-eastern corner of the MPE site, to the north-west. By moving the freight village west, it would be positioned at the 'gateway' location adjacent to Moorebank Avenue, thereby attracting greater passing trade, and becoming more commercially viable.

Traffic circulation

The Urban Design and Landscape Report prepared to support the Concept Plan EA (Reid Campbell, 2011) for the MPE Project included a road network and hierarchy to support the various land uses on the MPE site. At the time, the design and placement of these roads were determined to take into consideration the traffic flow throughout the site and the configuration and staging of the development to allow adequate flexibility.

The road hierarchy proposed in the Concept Plan EA is shown in Attachment B and included:

- Moorebank Avenue frontage: The primary connection to the MPE site for all roads, vehicle access, and pedestrian and cyclist entry and exit
- Estate Road: the major access road into the MPE site, including a dual carriageway, landscaped median, integrated pedestrian and bicycle path and landscape buffer
- Internal Road 1: A service road for heavy vehicles to access warehouse and distribution facilities with an 18m road reserve and 8m bio-retention corridor
- Internal Road 2: A dedicated internal road to the freight village and dedicated staff parking areas for potential large format distribution warehousing along the north and eastern boundaries of the site.

The proposed vehicle movement and access arrangements throughout the MPE Stage 2 site as part of this SSD application proposes a revised road network configuration, including:

- An east-west oriented internal road (internal road 1), which would provide a connection between the revised site access point and internal road 2. This would provide the same functionality as the estate road proposed in the Concept Plan EA; however, would be located approximately 300 metres south of the original location proposed for the estate road, as a result of the revised site access point
- Internal road 2, oriented north-south and along the eastern boundary of the MPE site. This road would be used by both heavy and light vehicles for access to the warehouses, loading docks and car parking facilities
- Three service roads, which would provide connections from internal road 1 and internal road 2 to the warehouses
- Three transfer roads, which would provide connection for vehicle movements between the Stage 1 IMT Facility and the Proposal

These refinements have resulted in both heavy and light vehicles using internal road 1, internal road 2 and service roads throughout the MPE site. The refinement of the road network, and resultant use of internal roads by heavy and light vehicles has been undertaken to maximise the efficiency of operations within the MPE site. In addition, the transfer roads would be an entirely separate road network, which would improve road safety throughout the MPE Stage 2 site, allowing for direct transfer of containers from the IMT facility and the warehouses.

Warehouse configuration

As part of the MPE Concept Plan Approval, it was originally intended that to the east of the IMT facility, warehouses would be large format, and smaller warehouses would be located to the north of the IMT facility. During design development, the size and orientation of warehouses were modified from the original proposed design as provided in the MPE Concept Plan. The proposed configuration, as shown in Figure 4-2 includes a mixture of smaller and larger format warehousing throughout the MPE Stage 2 site.

Revising the warehouse size and configuration throughout the MPE Stage 2 site has allowed for a more effective stormwater design and optimise the efficient operation of the Proposal, particularly the interface between the warehousing and IMT facility within the MPE site.

Moorebank Avenue upgrade

The MPE Concept Plan Approval indicates that Moorebank Avenue would be required to be upgraded within 24 months of operating an IMT terminal with a throughput of 300,000 TEU per annum. SIMTA has considered the overall works program for the Moorebank Precinct and identified that positive impacts can be achieved through undertaking, in part, the Moorebank Avenue upgrade as part of the Proposal, i.e. prior the next stage of development for the IMT.

In designing the upgrade consideration was given to the constraints of the Moorebank Precinct, in particular that posed by drainage from the MPE site and Moorebank Avenue across the MPW site. It was determined that the most optimal design was to adjust the vertical alignment of Moorebank Avenue to improve drainage across the Moorebank Precinct and as best retain existing flow patterns in the surrounding area.

The extent of the Moorebank Avenue upgrade has been determined based on background traffic flows, proposed MPE traffic and also in consideration of surrounding development. In particular, the Moorebank Avenue upgrade does not extend north of the MPE site to ensure minimal impact to the entrance to the DJLU facility, which has been previously identified as a key consideration for Defence.

Further, the Moorebank Avenue upgrade includes a four-lane road at the northern extent which transitions into a two-lane road. Although it is not necessary, based on existing and proposed traffic levels, for the entire extent of this upgrade to be four lanes, the two-lane part would be built to allow for an increase in width of the carriage way to accommodate a future road widening as required. In addition to this, the road is not currently built to Roads and Maritime standards, and therefore, although the road would remain in private ownership, it would be upgraded to meet the relevant standards which would improve the usability and safety of this infrastructure.

Overall, the Moorebank Avenue upgrade has been designed to consider the surrounding site constraints, existing and proposed traffic to service both the Moorebank Precinct and the surrounding area.

3.3.4 Design Refinement

Since the MPE Concept Plan Approval and EPBC Approval, a number of design refinements have been made to the Proposal. Design changes have been made in response to advice and consultation with government authorities, service providers and the community, as well as additional data from more detailed environmental and social investigations. Where a refinement was likely to have wider implications, or where a range of constraints and alternatives was considered, design refinements were identified in the context of environmental considerations.

A summary of key design refinements, undertaken to address concerns raised during consultation throughout the EIS process is provided in Section 6.8.

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4 PROPOSAL DESCRIPTION

SIMTA are seeking approval under Part 4, Division 4.1 of the EP&A Act for the construction and operation of Stage 2 of the MPE Project (the Proposal), comprising warehousing and distribution facilities on the MPE site (the MPE Stage 2 site), and upgrades to approximately 1.4 kilometres of Moorebank Avenue (the Moorebank Avenue upgrade). The Moorebank Avenue upgrade commences from approximately 95 metres south of the northern boundary of the MPE site to approximately 120 metres south of the southern MPE site boundary. The Moorebank Avenue upgrade is located within the existing Moorebank Avenue road corridor and along the eastern boundary of the MPW site (refer to Section 4.1.1 for more information on Property ownership).

Included within this section of the EIS is a detailed description of the built form of the Proposal, the indicative construction methodology, and the operational procedures to be implemented. This section should be read in conjunction with the following design drawings, statements and plans:

- *Architectural Drawings* (Reid Campbell, 2016) provided at Appendix D
- *Landscape Design Statement and Plans* (Ground Ink, 2016) provided at Appendix E
- *Utilities Strategy Report* (Arcadis, 2016) provided at Appendix F
- *Preliminary Construction Environmental Management Plan* (Arcadis, 2016) provided at Appendix G
- *Preliminary Construction Works Drawings prepared by Arcadis and provided at Appendix H*
- *Stormwater and Flooding Impact Assessment* (Arcadis, 2016) and *Civil Works Drawings* (Arcadis, 2016) provided at Appendix P.

The design of the Proposal has been prepared to progress and further refine the design identified in the MPE Concept Plan Approval (MP 10_0193) (as modified). The design for the Proposal has been altered and updated to maximise the efficiency of the site operations, and reduce the overall impact of the Proposal on the environment, where possible (refer to Section 6 and Sections 7 to 20 of this EIS for further information).

4.1 Proposal Overview

The Proposal involves the construction and operation of Stage 2 of the MPE Project, comprising warehousing and distribution facilities on the MPE site and upgrades to approximately 1.4 kilometres of Moorebank Avenue between the northern MPE site boundary and 120 metres south of the southern MPE site boundary.

Key components of the Proposal include:

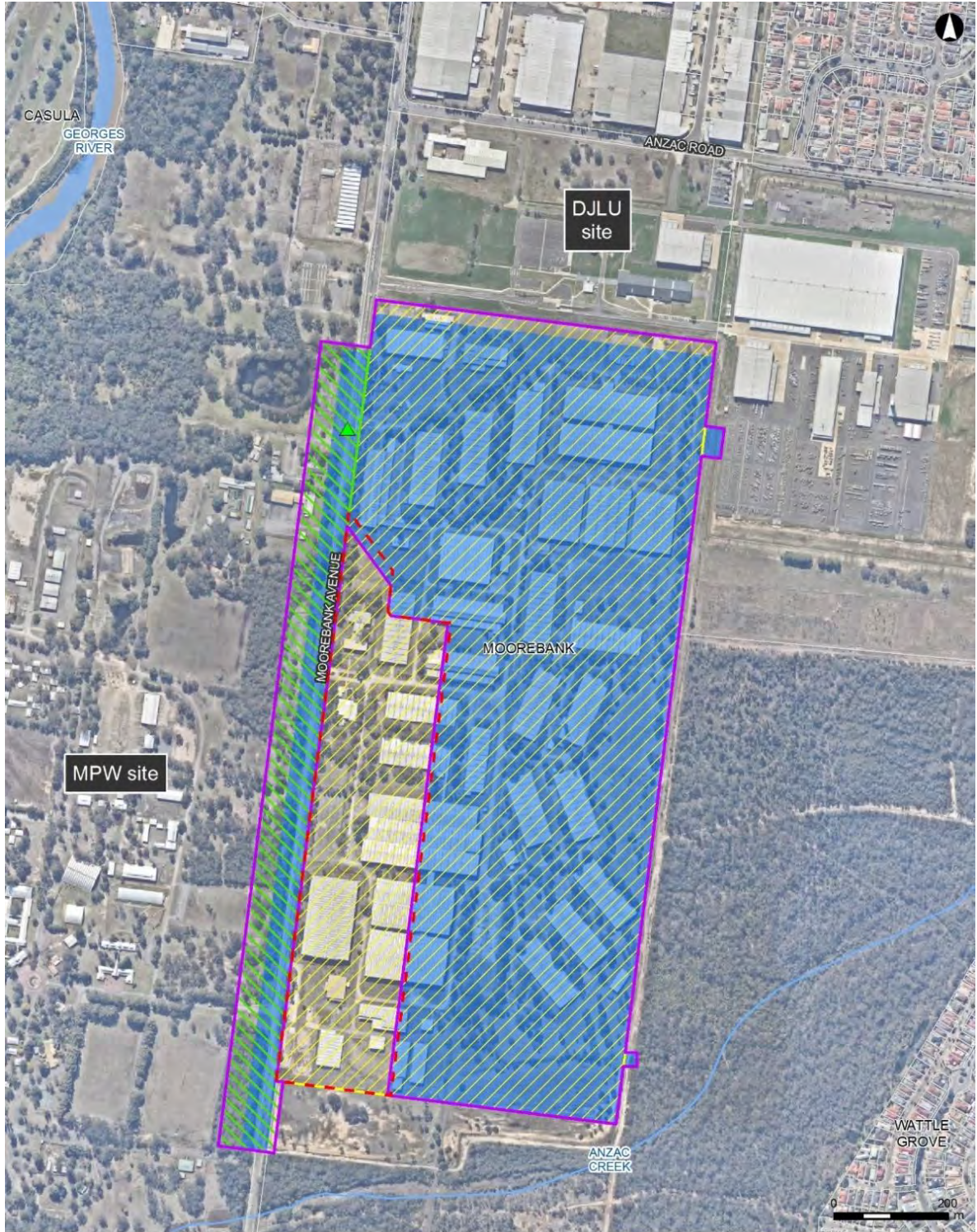
- Warehousing comprising approximately 300,000m² GFA and additional ancillary offices
- A freight village, comprising 8,000m² GFA of retail, commercial and light industrial land uses
- Establishment of an internal road network, and connection of the Proposal to the surrounding public road network
- Ancillary supporting infrastructure within the Proposal site, including:
 - Stormwater, drainage and flooding infrastructure
 - Utilities relocation and installation
 - Vegetation clearing, remediation, earthworks, signage and landscaping

- Subdivision of the MPE Stage 2 site
- The Moorebank Avenue upgrade would be comprised of the following key components:
 - Modifications to the existing lane configuration, including some widening
 - Earthworks, including construction of embankments and tie-ins to existing Moorebank Avenue road level at the Proposal's southern and northern extents
 - Raking of the existing pavement and installation of new road pavement
 - Establishment of temporary drainage infrastructure, including temporary basins and / or swales
 - Adjusting the vertical alignment by about two metres from the existing levels, including kerbs, gutters and a sealed shoulder
 - Signalling and intersection works
- Upgrading existing intersections along Moorebank Avenue, including:
 - Moorebank Avenue / MPE Stage 2 access
 - Moorebank Avenue / MPE Stage 1 northern access
 - Moorebank Avenue / MPE Stage 2 central access
 - MPW Northern Access / MPE Stage 2 southern emergency access

The Proposal would interact with the MPE Stage 1 Proposal (SSD_6766) via the transfer of containers between the MPE Stage 1 IMT and the Proposal's warehousing and distribution facilities. This transfer of freight would be via a fleet of heavy vehicles capable of being loaded with containers and owned by SIMTA. The fleet of vehicles would be stored and used on the MPE Stage 2 site, but registered and suitable for on-road use. The Proposal is expected to operate 24 hours a day, seven days per week.

An overview of the Proposal is shown in Figure 4-1. To facilitate operation of the Proposal, the following construction activities would be carried out across and surrounding the Proposal site (area on which the Proposal is to be developed):

- Vegetation clearance
- Remediation works
- Demolition of existing buildings and infrastructure on the Proposal site
- Earthworks and levelling of the Proposal site, including within the terminal hardstand
- Drainage and utilities installation
- Establishment of hardstand across the Proposal site, including the terminal hardstand
- Construction of a temporary diversion road to allow for traffic management along the Moorebank Avenue site during construction (including temporary signalised intersections adjacent to the existing intersections) (the Moorebank Avenue Diversion Road)
- Construction of warehouses and distribution facilities, ancillary offices and the ancillary freight village
- Construction works associated with signage, landscaping, stormwater and drainage works.



LEGEND

- MPE site
- MPE Stage 1 operational area
- MPE Stage 2 operational area
- MPE Stage 2 construction area
- Moorebank Avenue Upgrade
- Site access
- Lot boundary
- Watercourse

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 QA by: CV

Figure 4-1 Overview of the Proposal

4.1.1 Property ownership and rights

The Proposal site is mostly located within Lot 1 DP1048263, owned by SIMTA and Lot 2 DP 1197707, owned by the Commonwealth of Australia. There are a number of additional lots which will be directly impacted or have the potential to be directly impacted by the Proposal. The land which would be directly impacted by the Proposal is subject to the refinement of the Proposal during detailed design.

A summary of potential lots affected by the Proposal is provided in Table 4-1. The ownership plan relating to these properties is provided in Section 2 of this EIS.

Table 4-1 Properties potentially affected by the Proposal

Lot	DP	Property address / description	Owner	Within MPE Stage 2 site footprint	Within Moorebank Avenue site
1	1048263	The MPE site	SIMTA (Qube Holdings).	✓	x
1	1197707	The MPW site	Commonwealth of Australia	x	✓
2	1197707	Moorebank Avenue (south of Anzac Road)	Commonwealth of Australia	x	✓
4	1197707	Boot Land	Commonwealth of Australia	✓	x
3002	1125930	DJLU	Commonwealth of Australia	✓	x

* Subject to the refinement of the Proposal during detailed design

4.2 Built form

The key built form elements of the Proposal include warehouses, the freight village, internal site roads and Moorebank Avenue. In addition, a number of ancillary works will be undertaken, including:

- Water management works
- Landscaping
- Parking
- Utilities
- Lighting
- Signage
- Subdivision of the MPE Stage 2 site

These elements are described in detail in the following sections (4.2.1 to 4.2.6). When considering the built form of the Proposal, reference should be made to the drawings, statements and plans listed at the beginning of this section of this EIS.

4.2.1 Warehousing

The Proposal would provide up to 300,000m² of warehousing across the MPE Stage 2 site, with ancillary offices attached. The Proposal would include eight warehouses, which would be up to 21 metres in height and would range in size from 20,350m² to 61,500m². The Proposal would also include some internal fitout of the warehouses, namely the installation of racking and associated services. The Proposal would seek approval for the construction of these warehouses and also the operation of these warehouses by future tenants.

An indicative layout of warehousing on the MPE Stage 2 site is shown in Figure 4-2.

Each individual warehouse would consist of the following:

- A container storage area
- Office and administration facilities
- Amenities
- Car parking
- Truck loading/unloading docks
- Internal parking for pick-up and delivery vehicles (PUD)
- Specialised sortation and conveyor equipment
- Hardstand areas that provide trailer parking spaces, external PUD parking spaces, vehicle manoeuvring areas and access to the main internal site road
- Signage for business identification purposes, including backlit illuminated signage on each warehouse (refer to Architectural drawings at Appendix D)
- Internal fitout, comprising racking and storage.

Associated with this key built form is a number of ancillary works, which include lighting, vegetation removal and landscaping, water management works and utilities.

The Proposal seeks approval for the provision of eight warehouses, located to the north and east of the MPE Stage 1 Proposal, within the MPE site. A summary of the warehousing to be provided within the MPE Stage 2 site as part of the Proposal is provided in Table 4-2 below.

The warehouses included in the Proposal would be of a high design quality. The warehouse materials and finishes would be compatible and blend with surrounding land uses. A schedule of the indicative colour palette for the proposed warehouses and other structures is provided in the *Architectural Drawings* (Appendix D) and summarised in Table 15-9 of this EIS.

Table 4-2 *New warehouses seeking approval as part of the Proposal*

Warehouse no.	General location on the MPE Stage 2 site	Size (m ²)	Ancillary office size (m ²)	Car parking spaces
1	In the north-western corner of the MPE Stage 2 site. Warehouse 1 is bounded by a car park and the ancillary freight village in the north, service road 1 in the east, internal road 1 in the south and the MPE Stage 2 site access and Moorebank Avenue in the west.	36,700	1,000	153
2	In the north-eastern corner of the Proposal site. Warehouse 2 is bounded by the northern OSD in the north, internal road 2 in the east, internal road 1 in the south and the central OSD to the west.	61,500	1,000	222
3	South of Warehouse 2 and is bounded by internal road 1 in the north, internal road 2 in the east, service road 2 in the south and an internal transfer road, central OSD and car parking in the west.	22,700	1,000	144
4	South of Warehouse 3. It is bounded by service road 2 in the north, internal road 2 in the east, warehouse 6 in the south and an internal transfer road, central OSD and car parking in the west. Warehouse 4 is separated from Warehouse 6 via an inter-tenancy wall.	20,350	1,000	91
5	Warehouse 5 is located in the centre of the Proposal site and bounded by internal road 1 in the north, internal transfer road, central OSD and car parking in the east, warehouse 8 in the south and the Stage 1 IMT facility in the west.	57,000	1,000	205
6	Immediately south of Warehouse 5, bounded by Warehouse 5 in the north, internal road 2 in the east, service road 3 in the south and an internal transfer road, central OSD and car parking in the west.	20,350	1,000	84
7	In the south-west corner of the Proposal site and bounded by service road 3 in the north, internal road 2 in the east, the southern OSD in the south and an internal transfer	24,400	1,000	144

MPE Stage 2 Proposal - Environmental Impact Statement

Warehouse no.	General location on the MPE Stage 2 site	Size (m ²)	Ancillary office size (m ²)	Car parking spaces
	road, central OSD and car parking in the west.			
8	South of Warehouse 5 and bounded by an internal transfer road in the north, internal transfer road, central OSD and car-parking in the east, an internal transfer road and the southern OSD in the south and the Stage 1 IMT facility in the west	57,000	1,000	205
Total		300,000	8,000	1248

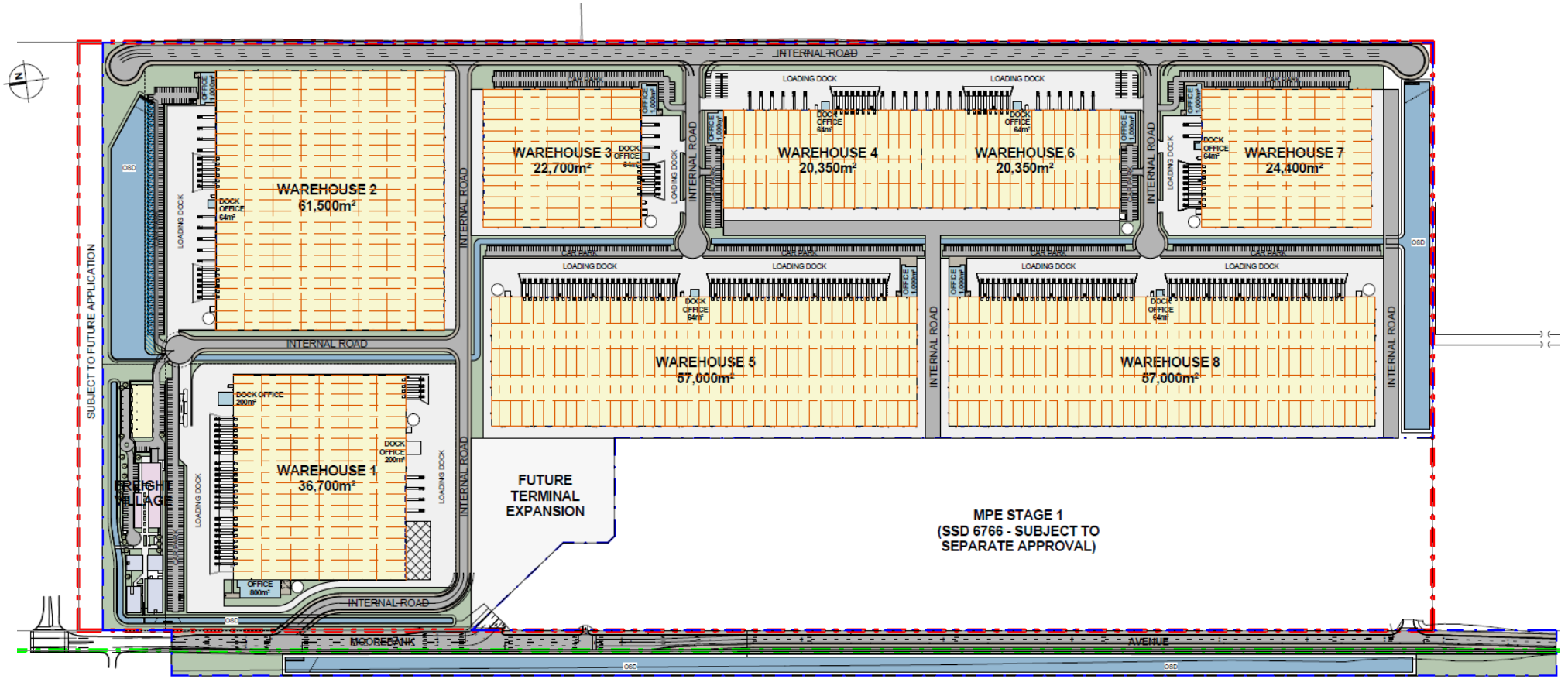


Figure 4-2 Indicative Proposal warehousing layout

4.2.2 Ancillary freight village

The Proposal would include the provision of a freight village on the MPE Stage 2 site. The freight village would be located in the north-western corner of the MPE site, directly north of Warehouse 1 and east of Moorebank Avenue.

The freight village would include five buildings which would provide for a mixture of retail, commercial and light industrial land uses, with a combined GFA of approximately 8,000m². An overview of buildings within the ancillary freight village is provided in Table 4-3. An indicative layout of the freight village is provided in Figure 4-3.

Table 4-3 Overview of buildings within the freight village

Building No.	No. of storeys*	Purpose	GFA (m ²)
A	1	Light industrial	1,080
B1	1	Retail	997
B2	1	Retail	223
C	4	Commercial	4,560
D	3	Commercial	1,143
Total GFA (m ²)			8,003

*Number of storeys in multi-level buildings includes the ground floor

The freight would include the provision of:

- Food outlets
- Amenities
- Loading dock(s)
- A services area
- A services corridor
- Landscaping
- Car parking (230 spaces), including basement parking.

The indicative layout of the freight village is show on Figure 4-3.

Buildings and structures within the freight village would be up to 15 m in height and of varying size and design, as detailed in Section 15 (visual amenity, landscape and urban design). The Proposal would also include the internal fitout of these buildings, including utilities and services. The Proposal would seek approval for the construction of this freight village and also the operation of these premises by future tenants.

Associated with this built form is a number of ancillary works, which include materials and finishes, signage, lighting, vegetation removal and landscaping, water management works and utilities, which have been discussed throughout this section of the EIS.

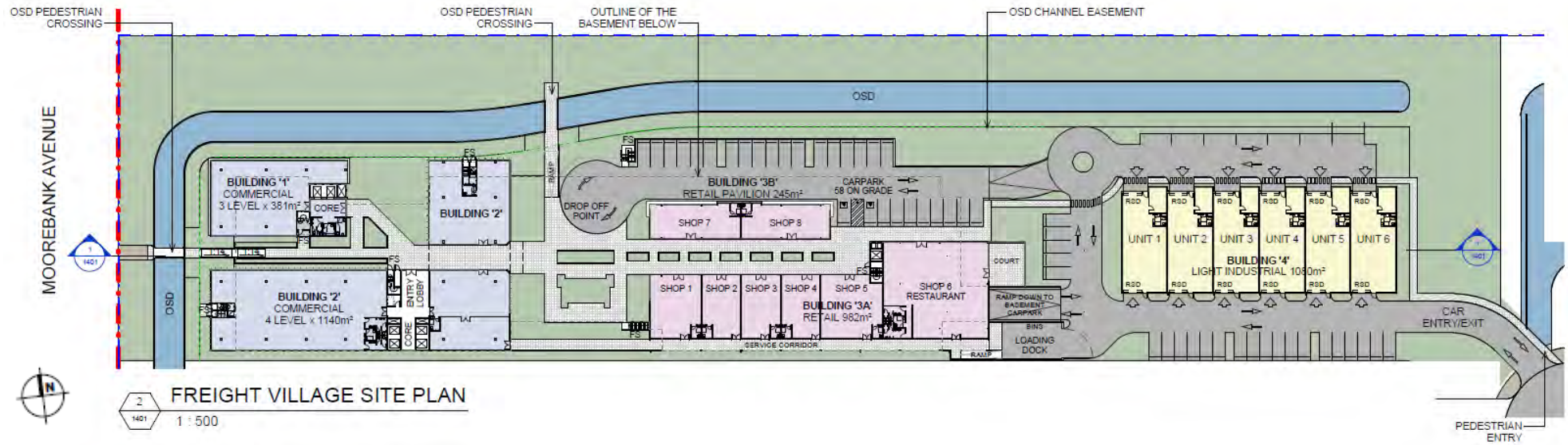


Figure 4-3 Indicative layout of the Freight Village

4.2.3 Vehicle Movement and Access – Internal roads

An internal road network would be provided within the MPE Stage 2 site as part of the Proposal which would:

- Enable the efficient movement of vehicles throughout the MPE Stage 2 site, and for the dispatch of freight from the warehouses
- Facilitate the transport of containers between the Stage 1 IMT facility and the warehouse and distribution facilities within the MPE Stage 2 site.

Traffic circulation throughout the MPE Stage 2 site would be through a combination of internal roads, service roads and internal transfer roads. The road network throughout the MPE Stage 2 site is shown on Figure 4-4.

MPE Stage 2 site access

Access to and from the MPE Stage 2 site would be via the existing Moorebank Avenue intersection with the northern DSND site access (at Ch.900 along Moorebank Avenue). The MPE Stage 2 site access is located to the north of the MPE Stage 1 Proposal (refer to Figure 4-1) and would allow for vehicular access to warehouse and distribution facilities to enable the direct delivery and dispatch of goods to the warehouses.

The MPE Stage 2 site access would be signalised, and configured as follows:

- Moorebank Avenue southbound:
 - One left-turning slip lane, providing entry into the MPE Stage 2 site and one through lane along Moorebank Avenue on the northern leg of the intersection
 - Two through lanes continuing along Moorebank Avenue on the southern side of the intersection
- Moorebank Avenue northbound:
 - Two through lanes along Moorebank Avenue on the southern leg of the intersection
 - Two through lanes, merging into one northbound lane along Moorebank Avenue on the northern side of the intersection
- MPE stage 2 site access road:
 - One entry lane, from Moorebank Avenue. Entry to the MPE Stage 2 access road would be provided from the southbound carriageway of Moorebank Avenue via a slip-lane. The MPE Stage 2 site access would be provided from the northbound carriageway of Moorebank Avenue via a right-turn signal provision at the intersection.
 - One exit lane onto Moorebank Avenue. The exit lane would provide for access to both the northbound and southbound carriageways of Moorebank Avenue.

The MPE Stage 2 site access point is shown on .

Traffic circulation within the MPE Stage 2 site

During the interim stages of operation, the traffic circulation throughout the MPE Stage 2 site would be via a combination of the roads described below (i.e. the final configuration) and the use of modified existing roads. Interim vehicle movement and access throughout the MPE Stage 2 site would be included in the relevant environmental management plans for operation of the Proposal, including the Construction Traffic Management Plan and Operational Traffic Management Plan.

Internal roads

The MPE Stage 2 site includes two main internal roads, which provided the main east-west and north-south traffic movements throughout the MPE Stage 2 site. On entering the MPE Stage 2 site, light and heavy vehicles would travel along an east-west oriented internal road (internal road 1). Internal road 1 would connect at its easternmost point to a second north-south oriented internal road (internal road 2).

Internal roads 1 and 2 would connect to three service roads which would provide vehicle access to warehouses, loading docks and car parking.

Internal road 2 would provide for traffic movements along the entire eastern perimeter of the Proposal, and would have a cul-de-sac at both the northern and southern ends to allow vehicles to turn around. The internal roads would be two lanes wide (one lane in each direction) and would be wide enough to accommodate heavy vehicle turning movements, including B-doubles.

Service roads

Three service roads would connect to the internal roads within the MPE Stage 2 site. The service roads would provide access to loading docks at warehouses for heavy vehicles to park and be packed with materials which have been received and stored within the warehouses. Service roads would also enable access to light vehicle parking for users of the warehouses. Each service road would have a cul-de-sac for vehicles to turn around, which would be able to accommodate turning movements of B-doubles.

Service road 1 would connect to internal road 1 via a T-intersection, and would provide access to Warehouse 1, Warehouse 2 and the ancillary freight village. Two additional service roads would connect to internal road 2 via t-intersections; service road 2 would provide access for warehouses 3, 4 and 5, and service road 3 would provide access to warehouses 6, 7 and 8.

Transfer roads

There would be three Transfer roads within the MPE Stage 2 site. These roads would provide connections between the warehouses and the MPE Stage 1 IMT. It is intended that the transfer of freight between the Stage 1 IMT and warehouses would be via an internal fleet of vehicles which would remain on the MPE Stage 2 site and would not use the external road network.

Transfer road 1 would travel mostly along the same path as internal road 1 and provide access between the Stage 1 IMT facility and Warehouses 1, 2 and 3. Transfer road 2 would travel through the centre of the MPE Stage 2 site and would provide access between the Stage 1 IMT facility and Warehouses 4, 5, 6 and 8. Transfer road 3 would travel along the southern boundary of the MPE site, and provide access between the Stage 1 IMT facility and Warehouses 7 and 8.

With the exception of transfer road 1, which travels along the same path as internal road 1, the movement of internal fleet vehicles along transfer roads would be separated from light and heavy vehicles entering and exiting the MPE Stage 2 site to maintain efficiency and to provide for a safe internal road network.

4.2.4 Roadworks – Moorebank Avenue

As part of the Proposal, Moorebank Avenue would be upgraded for about 1.4 kilometres. The Moorebank Avenue upgrade commences from approximately 95 metres south of the northern boundary of the MPE site to approximately 120 metres south of the southern MPE site boundary. The Moorebank avenue upgrade is located

within the existing Moorebank Avenue road corridor and along the eastern boundary of the MPW site (refer to Figure 4-1 for extent of works).

The Moorebank Avenue upgrade would be comprised of the following key components:

- Modifications to the existing lane configuration, including some widening
- Signalling and intersection works.
- Adjusting the vertical alignment by about two metres from the existing levels, including kerbs, gutters and a sealed shoulder

An assessment of the traffic and transport-related impacts associated with the Moorebank Avenue upgrade is provided in Section 7 (Traffic and transport) and Appendix K.

Lane configuration

The Moorebank Avenue upgrade would provide for the integration of the Proposal with the wider Moorebank Precinct works and to tie-in to Moorebank Avenue north of the Anzac Road/Moorebank Avenue intersection.

The arrangement of lanes along Moorebank Avenue as part of the Proposal would include:

- Four lanes from the northern extent of the Moorebank Avenue upgrade to the MPE Stage 1 central access.
- Two lanes between the MPE Stage 1 central access to approximately 120 metres south of the MPE site.

The lanes would generally be 3.5m wide central travel lanes, with 4.2m wide kerbside travel lanes with a 4.5 metre verge along both the northbound and southbound carriageways to allow for the relocation and installation of utilities and services.

An indicative cross section of the four-lane section of Moorebank Avenue is shown in Figure 4-5, and an indicative cross section of Moorebank Avenue within the two-lane section is shown in Figure 4-6.

Intersection upgrades

The Proposal includes upgrades to four intersections along Moorebank Avenue:

- The Moorebank Avenue / MPE Stage 2
- Moorebank Avenue / MPE Stage 1 northern access
- Moorebank Avenue / MPE Stage 1 central access
- Moorebank Avenue / MPE Stage 1 southern emergency access.

The Moorebank Avenue / MPE Stage 2 site access intersection would be upgraded to provide additional lanes, and the intersection would be signalised (refer to Section 4.2.3 for more information relating to the upgraded configuration of this intersection).

The upgrades to the following intersections would involve the provision of a wider road pavement, the establishment of kerb and guttering and tie-in works to the revised vertical alignment of Moorebank Avenue:

- Moorebank Avenue / MPE Stage 1 northern access (tie-in works only)
- Moorebank Avenue / MPE Stage 1 central access
- Moorebank Avenue / MPE Stage 1 southern emergency access.

Road alignment

The horizontal alignment of Moorebank Avenue is not expected to change significantly as a result of the Proposal, with the upgraded road remaining primarily within the existing Lot 2 of DP1197707.

As part of the Proposal, the vertical alignment of Moorebank Avenue within the operational footprint of the Moorebank Avenue upgrade (refer to Figure 4-1) would be adjusted by approximately two metres. At the northern and southern extents of this work, the vertical alignment would be graded to tie-in to the remainder of Moorebank Avenue.

Pedestrian and cyclist access

To accommodate pedestrian and cyclist access through the Proposal site, a shared path would be provided on the western side of Moorebank Avenue. Pedestrian and cyclist crossing facilities would be provided at intersections along the Moorebank Avenue upgrade.

Pedestrian and cycling provisions within the MPE Stage 2 site would also be provided for employees. The proposed connectivity between the Proposal site and the surrounding pedestrian and cycling network is described further in Section 7 and Appendix K of this EIS.

Public transport

To improve bus transport access to the Proposal, additional bus stops are proposed near the Moorebank Avenue / MPE Stage 2 site access intersection and on the internal roads in order to provide a reasonable walking distance to all proposed warehouses and offices within the MPE Stage 2 site. The final location of bus stops along Moorebank Avenue would be determined in consultation with Transport for NSW. Additional information regarding public transport provisions is provided in Section 7 and Appendix K of this EIS.

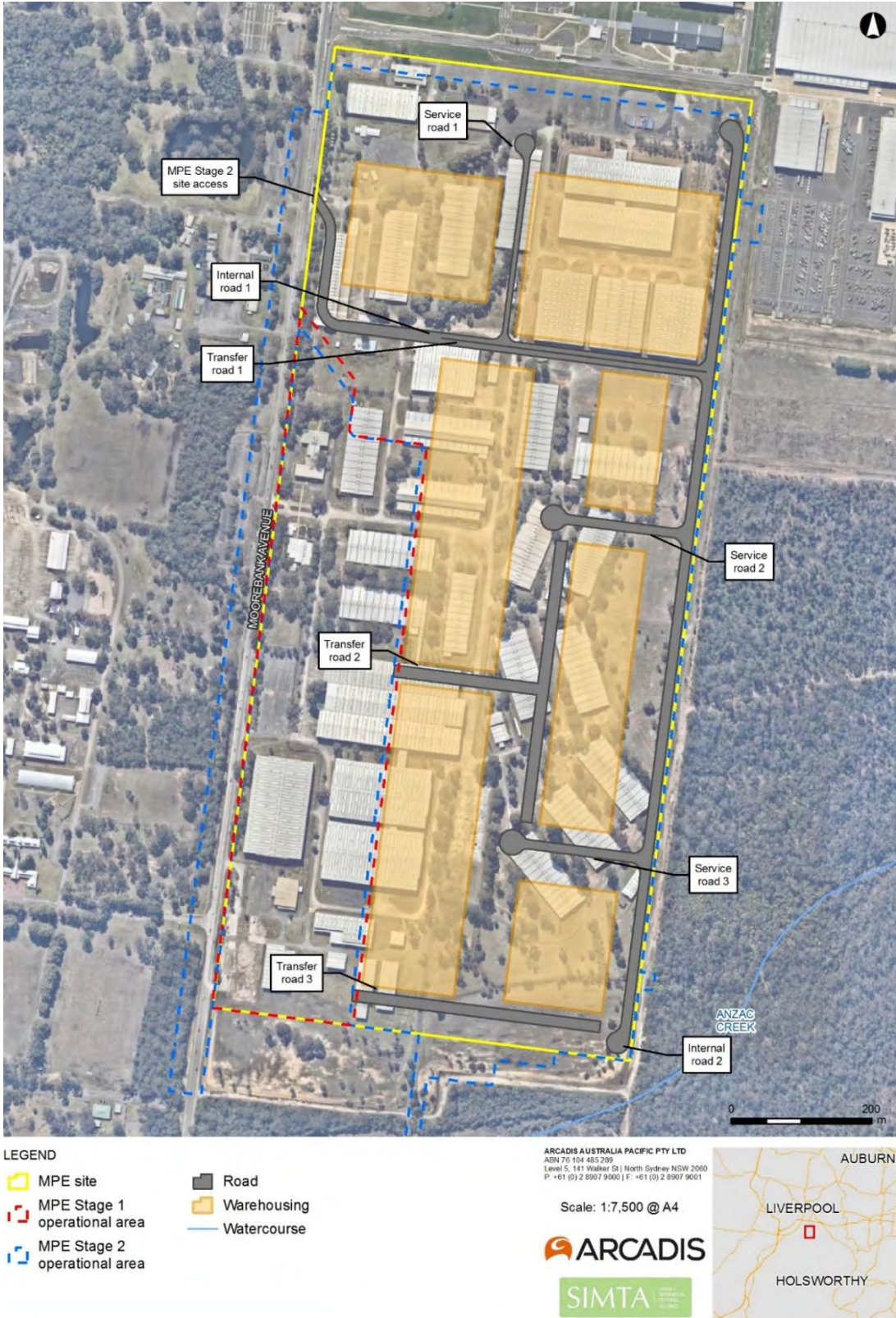


Figure 4-4 Vehicle movement and access within the Proposal site

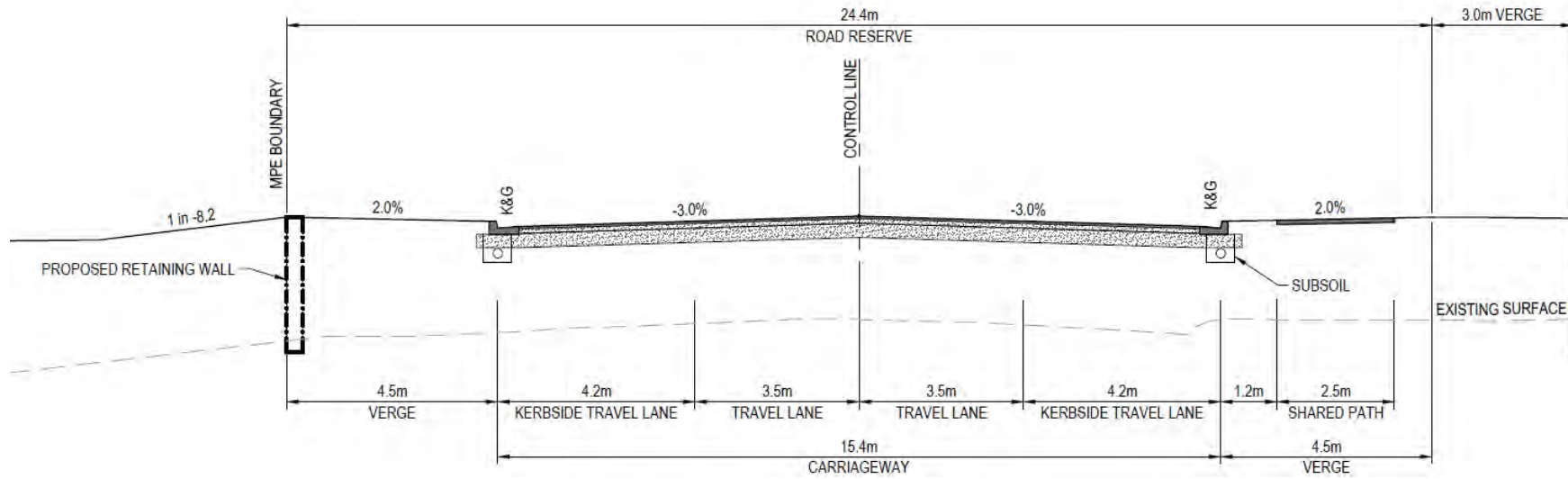


Figure 4-5 Indicative cross section – Moorebank Avenue 4 lane configuration

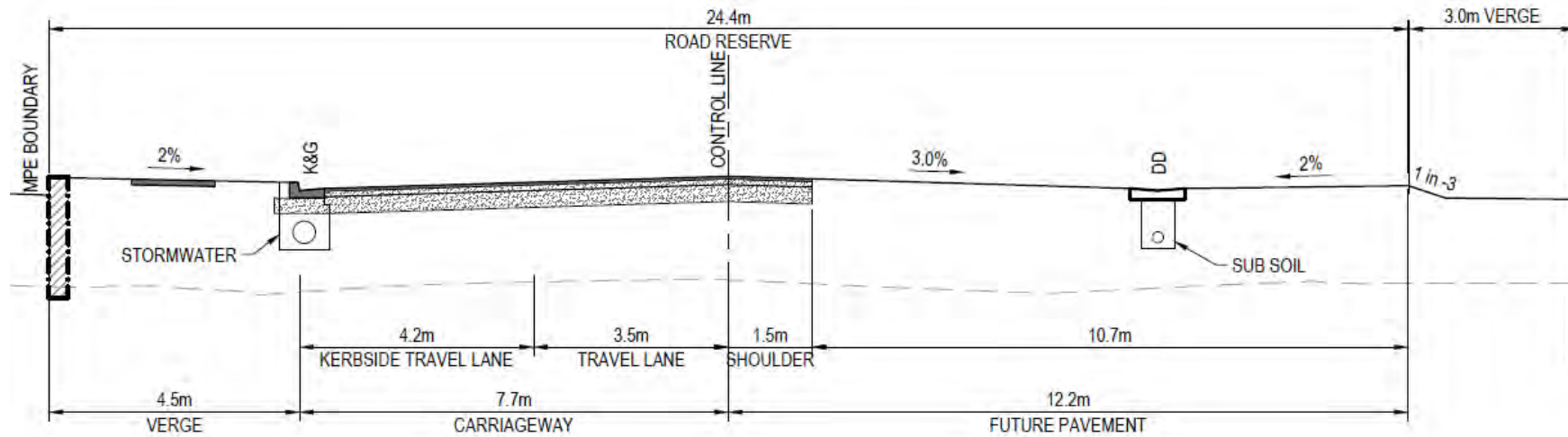


Figure 4-6 Indicative cross section – Moorebank Avenue 2 lane configuration

4.2.5 Ancillary works

Water management works

The Proposal would include the installation of stormwater, drainage and flooding infrastructure throughout and surrounding the Proposal, comprising stormwater infrastructure within the MPE Stage 2 site and along road corridor subject to the Moorebank Avenue upgrade, and the provision of on-site detention basins (OSDs).

The *Stormwater Drainage Design Drawings* provided at Appendix P show the layout of the surface water catchment, treatment and drainage systems to be installed across the Proposal site. A summary of the drainage for the Proposal site is shown in Figure 4-2.

Existing MPE Stage 2 site runoff

Currently, stormwater generated on the MPE Stage 2 site is carried through formal open grass lined channels to three discharge points. Flows on the eastern portion of the Proposal site move in an eastward direction to pipes and headwalls under Greenhills Road, discharging to Anzac Creek through two points (Outlet A and B).

Stormwater flows on the western portion of the site (from both the eastern and western side of Moorebank Avenue) are collected in a formal concrete lined channel which runs within the site parallel to Moorebank Avenue. These channel flows discharge via a culvert under Moorebank Avenue (Outlet C) into a channel which leads to Georges River.

Stormwater infrastructure

A pit and pipe system would be installed across the Proposal site to collect and transport stormwater runoff into stormwater drains and culverts. Water would then flow to one of four OSDs prior to being discharged into local waterways via three existing discharge points:

- At the north-eastern boundary of the MPE Stage 2 site, which discharges runoff into Anzac Creek
- At the south-eastern boundary of the MPE Stage 2 site, which discharges runoff into Anzac Creek
- At the north-western boundary of the MPE Stage 2 site, which discharges runoff into the Georges River via a drainage channel that flows through the MPW Site.

Stormwater runoff along the section of Moorebank Avenue being upgraded as part of the Proposal would be conveyed through a pit and pipe system to the western OSD, located to the west of Moorebank Avenue. Water from the OSD would then discharge to a culvert that flows westwards through the MPW site and discharges to the Georges River.

On-site detention

The Proposal would include the use of four OSDs. The four basins are summarised and described in more detail in Section 12 of this EIS.

Table 4-4 Summary of on-site detention to be provided across the Proposal site

OSD No.	Location	Catchment Area (m ²)	Volume (m ³)
1	OSD 1 is located along the northern boundary of the MPE Stage 2 site, immediately north of Warehouse 2. OSD 1 also travels through the centre of the MPE Stage 2 site to transfer road 2.	28.99	27,400
2	OSD 2 is located along the southern boundary of the MPE Stage 2 site, immediately south of Warehouse 7 and 8. OSD 2 also travels through the centre of the MPE Stage 2 site to transfer road 2.	16.17	16,600
9	OSD 9 is located along the northern boundary of the MPE Stage 2 site, immediately north of the freight village, and along the western boundary of the MPE Stage 2 site, immediately adjacent to the freight village and warehouse 1	11.91	8,000
10	OSD 10 is located within the Moorebank Avenue site and within the MPW site. The OSD is located immediately west of Moorebank Avenue.	42.20	24,000

Vegetation removal and landscaping

It is anticipated that all necessary vegetation would be removed from the construction footprint (refer to Figure 4-8 for construction footprint). The majority of vegetation clearance would be undertaken at the commencement of construction and then periodically throughout the construction of the Proposal.

Landscaping would be undertaken on the site as part of the Proposal. The Landscape Design Statement and Plans (Appendix E) provide details on the key landscaping features that would be included as part of the Proposal site. Landscaping would be included on all boundaries of the Proposal site. Specific urban design principles have been developed for the Proposal as part of the MPE Concept Plan Approval. These would be implemented through the landscape design for the Proposal. Further details regarding landscaping is provided in Section 15 (Visual amenity, urban design and landscape).

As the Proposal is located adjacent to areas of established vegetation to the east, the landscape design of the Proposal aims to integrate the Proposal site into the broader environment through the use of species local to the area.

Landscaping along Moorebank Avenue would include extensive tree and shrub planting on road frontages that would provide visual relief from the industrial appearance of the proposal, with a layered approach along the streetscape. This landscaping would include a mix of trees, shrubs and turfed areas.

Tree plantings would be provided around the warehousing and within the car parking areas. The landscape design for the Proposal aims to integrate the site into the broader environment with the following:

- Use of species that are local to the area, hardy and easy to maintain, including those recommended by the Liverpool City Council DCP.
- Use of trees within the site to provide a uniform canopy cover within vegetated areas
- Use of local species as understory planting to support and enhance local habitat values
- Use (where reasonable and feasible) of seeds collected within the local area for planting to reinforce the genetic integrity of the region.

Signage

Signs would be located at a number of locations across the MPE Stage 2 site. These signs would be for the purposes of way finding and access to and from the Warehouses. Each warehouse would also include branded signage which would be backlit illuminated. A Signage Plan has been prepared for primary site identification signage (only) and is included within the *Architectural Drawings* at Appendix D.

A summary of the type of signs that are to be included within the MPE Stage 2 site is provided in Table 4-5 and in the *Architectural Drawings* (Appendix D of this EIS).

Table 4-5 Proposal signage within the MPE Stage 2 site

Signage type	Dimensions	General locations
Type 1 – Street entry signage	Maximum 6 m height	Main site entrance off Moorebank Avenue
Type 2 – Tenant identification signage	Maximum 5 m height	Warehouse entrances along the internal road
Type 3 – Tenant directional signage	Maximum 3 m height	Within the warehousing area

Traffic, locational and directional signage would be provided along Moorebank Avenue within the Proposal footprint, where required. All directional signage would be installed in accordance with the Austroads and Roads and Maritime standards, with a focus on providing clear and unambiguous direction to road users.

Lighting

Lighting would be provided around the warehouse entry and exit points, ancillary offices and along the perimeter road and internal transfer roads to allow for 24 hour operations. Lighting design is provided within the Light Spill Assessment (Appendix R). All lighting has been designed in accordance with *AS/NZS 1680.5:2012 Australian and New Zealand Interior and workplace, Part 5: Outdoor workplace lighting* and *AS 4282-1997 Control of the obtrusive effects of outdoor lighting*.

The main lighting for the Proposal would include pole lighting which would be a maximum height of 21m. The lighting specifications are yet to be finalised; however, it is envisaged that lighting would comprise directional flood lighting with horizontal front glass tilted to focus on operational areas within the MPE Stage 2 site to minimise light spill.

Street lighting would be provided along the Moorebank Avenue upgrade, in accordance with *Australian Standard AS / NZS 1158: Lighting for roads and public spaces*.

Fencing

A palisade security fence would be installed along the western boundary of the MPE Stage 2 site, fronting Moorebank Avenue. An example of the fence is provided in Figure 4-7 (refer to the Architectural Drawings at Appendix D and Landscape Design Plans at Appendix E for further details). This fence would be integrated into the landscaping proposed for the boundaries of the site.

Chain link security fencing would be installed on all other boundaries of the Proposal site.



Figure 4-7 Palisade security fence example

Utilities relocation and installation

The MPE site has historically been connected to nearby public utility networks through Commonwealth owned assets. These connections would be disconnected and redundant infrastructure would be decommissioned as part of the Proposal. Utilities relocation and installation across the Proposal site would be completed in a staged manner. The existing utility supply to the Proposal site would be maintained until the proposed permanent utilities can be provided.

All external utilities required for the Proposal would be provided through the MPE Stage 1 site. Utility connections to the MPE Stage 1 site would be undertaken via applications made directly to the relevant utility providers and approved through their authority and delegation under Part 5 of the EP&A Act. No direct connections from the Proposal to any authority mains would be required. Additional information regarding utility connections, and the further discussion of the demand requirements is provided in Section 19.3 and the Utilities and Services Strategy included at Appendix F of this EIS.

Sustainability initiatives A broad range of technologies exist that could be employed as part of the Proposal to enhance its sustainability performance. As a new facility, the Proposal would strive for a high level of efficiency, and potential measures to further enhance efficiency and implement the principles of Ecological Sustainable Development (ESD) would be considered at detailed design.

ESD and energy efficiency measures and management strategies would also be reviewed and updated as appropriate for incorporation into the Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP), as required. ESD measures that may be considered during detailed design could include:

- Use of alternate fuels in operational machinery (such as LPG or biofuels)
- Use of natural light and ventilation for office spaces
- The procurement of energy efficient equipment for construction and operation
- Water harvesting, including roof water collection on all warehouses
- Re-use of waste water, e.g. for toilet flushing, landscape irrigation and wash-down areas
- Energy efficiency design measures (such as for lighting types and controls, control systems, compressors, variable speed drives for fans/pumps etc)
- Measures to minimise HVAC demand (such as use of natural cooling vents and doors to control air movement, insulation, routine maintenance, and economy cycles that exchange ambient air to help control indoor temperature)
- Installation of energy efficient conveyors and automatic sortation systems
- Use of warehouse management systems (enabling multi-tasking of mobile equipment, optimising storage locations, and allowing integration of energy management systems and other management systems)
- Review of potential renewable energy sources, such as solar energy, prioritised in accordance with the prioritising the Carbon Management Principles for Emissions Reduction (such that offsetting is considered as a last priority).

4.2.6 Subdivision

It is intended that the MPE Stage 2 site would be subdivided as part of this application. The MPE Stage 2 site would be subdivided into a number of lots for the purpose of segregating the IMT and warehouse and distribution facilities, and also for the tenancing of individual warehouses within the MPE Site. A Draft Plan of Subdivision provided in Appendix I of this EIS and further detail is provided in Table 4-6.

Table 4-6 Subdivision of SIMTA site as part of the Proposal

Lot No.	DP	Size (ha)	General description
1	1048263	11.38	North-western corner of the Proposal Site
2	1048263	18.84	North-eastern corner of the Proposal Site
3	1048263	20.78	Central portion of the Proposal site, excluding land within the Stage 1 IMT facility
4	1048263	10.85	Southern portion of the Proposal site, excluding land within the Stage 1 IMT facility

In addition to this, a 7.5 metre wide water supply easement would traverse the site, through Lot 2 and Lot 3 of DP 1048263.

4.3 Construction

4.3.1 Construction methodology overview

The construction period for the Proposal is anticipated to be approximately 24-36 months and would commence towards the final stages of construction of the MPE Stage 1 Proposal. An overview of the construction layout for the Proposal is shown in Figure 4-8 and is detailed further in the *Preliminary Construction Works Drawings* (refer to Appendix H).

Construction works would generally involve the following activities:

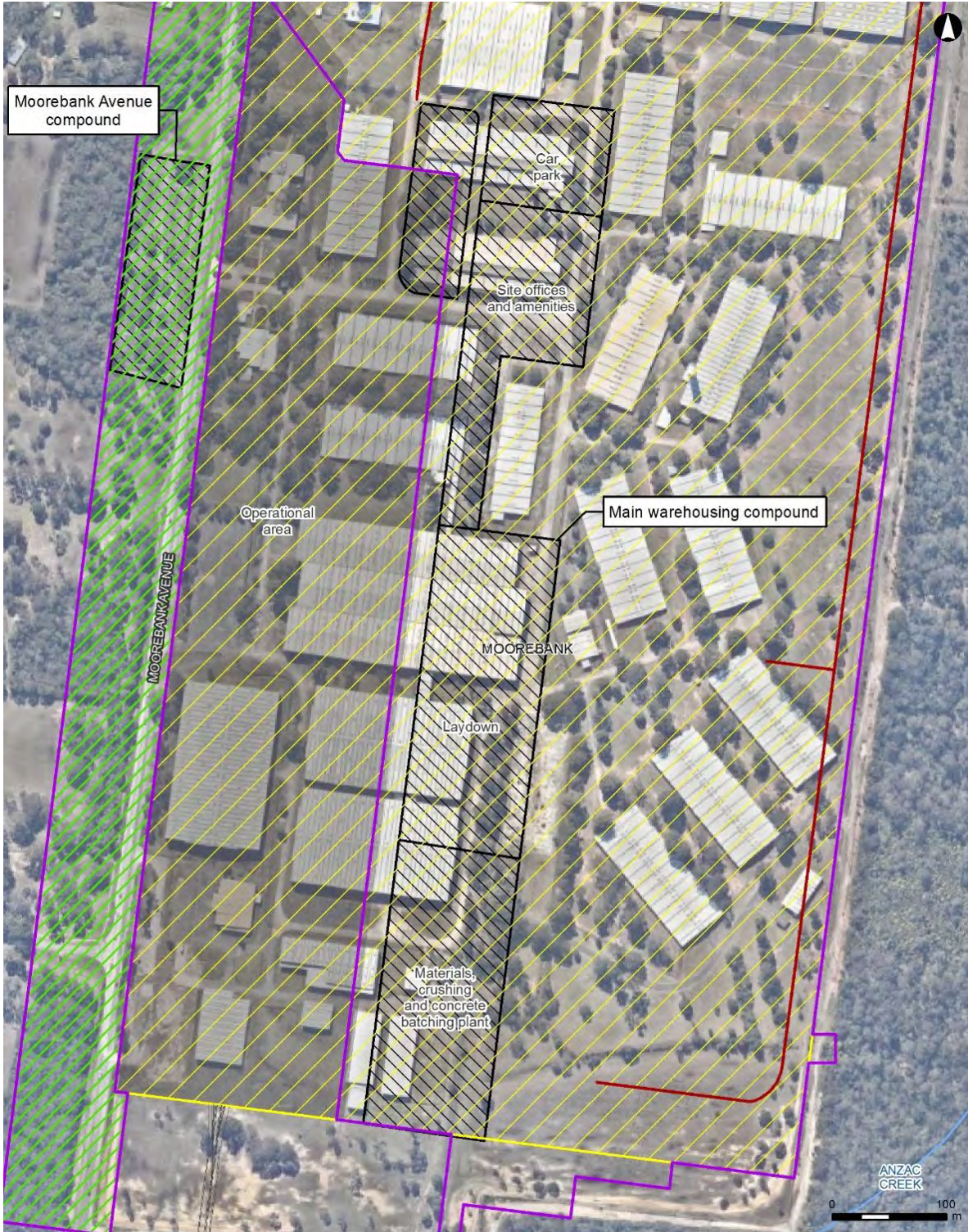
- Vegetation clearance
- Establishment of construction compounds
- Remediation works
- Demolition of existing buildings and infrastructure
- Earthworks, adjusting the building formation of the Proposal site and Moorebank Avenue
- Construction of the Moorebank Avenue diversion road
- Adjustment of the formation level and levelling of Moorebank Avenue within the Proposal site
- Road pavement and intersection works along Moorebank Avenue within the Proposal site
- Drainage and utilities installation
- Establishment of a site vehicle entrance to the MPE Stage 2 Site from Moorebank Avenue
- Establishment of hardstand areas, where required
- Construction of warehouses and distribution facilities and ancillary offices
- Construction works associated with signage, landscaping, stormwater and drainage works.

The construction footprint of the Proposal is shown on Figure 4-8. Further detail regarding the construction methodology is provided in Section 4.3.2 to Section 4.3.10. The construction methodology may be refined during the detailed design phase of the Proposal and / or in response to submissions received during the exhibition of the EIS to minimise environmental impacts.



Detailed construction planning would be carried out prior to the commencement of construction and would be detailed in a Construction Environmental Management Plan (CEMP) for the Proposal. Construction of the Proposal is expected to be undertaken in seven broad construction works periods:

- Works period A: Pre-construction activities
- Works period B: Site preparation activities
- Works period C: Construction of the Moorebank Avenue diversion road
- Works period D: Pavement and intersection works along Moorebank Avenue
- Works period E: Bulk earthworks, drainage and utilities
- Works period F: Construction and internal fit-out of warehousing
- Works period G: Miscellaneous construction and finishing works.

Additional detail regarding the construction program and construction activities for these works periods is provided in Section 4.3.2.



LEGEND

-  MPE site
-  MPE Stage 2 construction area
-  MPE Stage 2 construction compound
-  Moorebank Avenue Upgrade
-  MPE Stage 1 operational area
-  Internal haul road
-  Rail link (Stage 1 Proposal)
-  Watercourse

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 QA by: CV

Figure 4-8 Overview of the construction layout for the Proposal

4.3.2 Construction Program and activities

Construction of the Proposal is proposed to take between 24 and 36 months, commencing in the final quarter of 2017, with completion of construction in the third quarter of 2019 (should construction take 24 months). The final construction program will depend on the market demand for warehouses to be constructed on the MPE Stage 2 site.

Construction program

Construction of the Proposal is proposed to take between 24 and 36 months, commencing in the final quarter of 2017, with the completion of construction in the third quarter of 2019 (should construction take 24 months). The final construction program will depend on the market demand for warehouses to be constructed on the MPE Stage 2 site.

The indicative construction program is shown in Table 4-7 (based on a 24-month construction period). The construction works have been divided into seven 'works periods' which are interrelated and would potentially overlap. Subject to confirmation from the construction contractor, the order and staging of these construction works periods may change.

Table 4-7 Indicative construction program (based on a 24 month construction period)

Construction works period	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Works period A – Pre-construction activities												
Works period B - Site Preparation activities												
Works Period C - Construction of the Moorebank Avenue diversion road												
Works period D - Pavement and intersection works along Moorebank Avenue												
Works period E – Bulk earthworks, drainage and utilities												
Works period F - Construction and internal fit-out of warehousing												
Works period G – Miscellaneous construction and finishing works												

Construction activities

A summary of the typical indicative construction works periods and their associated activities is provided in Table 4-8.

Table 4-8 Typical construction activities to be undertaken within each construction works period

Construction works period	Activity
Works period A – Pre-construction activities	<ul style="list-style-type: none"> • Establishment of site access points • Importation of clean general fill for site preparation activities • Installation of site fencing • Remediation, where required.
Works period B - Site preparation activities	<ul style="list-style-type: none"> • Demolition of existing structures • Clearing of vegetation • Adjusting the building formation of the site (to final operational levels) within which the Main Warehousing Compound would be located • Temporary works, including installation of construction environmental management measures (e.g. erosion and sedimentation controls) • Establishment of construction compound fencing and hoardings • Installation of site offices and amenities • Construction of hardstands for staff parking and laydown areas • Establishment of temporary batch plant and materials crushing plant • Construction of access roads, site entry and exit points and security • Establishment of site haulage roads. • Establishment of construction compound(s)
Works period C: Construction of the Moorebank Avenue diversion road	<ul style="list-style-type: none"> • Stripping of topsoil within footprint of temporary diversion road • Installation of temporary drainage • Placement of fill and temporary road pavement (e.g. gravel) • Construction of interface between temporary diversion road and existing Moorebank Avenue • Installation of temporary road signage, street lighting and signalling • Transfer of traffic onto temporary diversion road from Moorebank Avenue.

Construction works period	Activity
Works period D – Bulk earthworks, drainage and utilities	<ul style="list-style-type: none"> • Removal of existing pavement and stripping of topsoil within Moorebank Avenue • Importation, stockpiling and placement of approximately 600,000 m³ of imported clean general fill for bulk earthworks • Installation of on-site detention (OSD) and drainage infrastructure within the MPE Stage 2 site • Construction of retaining walls • Creation of a road formation by general earthworks (by constructing fill embankments) • Bulk earthworks and adjusting the building formation of the Proposal site to final level, including the terminal hardstand • Utilities relocation and installation • Establishment of hardstand areas.
Works period E – Pavement works along Moorebank Avenue	<ul style="list-style-type: none"> • Placement of select layer of earthworks material on top of the road formation • Placing and compacting the pavement later (concrete, or concrete and asphalt) over the select layer (consisting of a sub-base and base) and potential sealing with bitumen • Traffic switching from diversion road onto final, upgraded Moorebank Avenue • Removal of construction traffic management and progressive opening of the internal road and warehouse access roads to traffic • Removal of road surface, road signage, street lighting and signalling from temporary diversion road • Commissioning of Moorebank Avenue.
Works period F - Warehouse construction and internal fit-out	<ul style="list-style-type: none"> • Foundation and floor slab installation • Erection of framework and structural walls • Installation of roof • Internal fit-out of warehouses (racking and associated services).

Construction works period	Activity
Works period G – Miscellaneous construction and finishing works	<ul style="list-style-type: none"> • Pavement construction (internal transfer roads and perimeter road), including forming of new kerbs, gutters, medians (where required) and other structures • Line marking, lighting and sign posting • Installation of road furniture, including traffic signs and pavement markers. • Miscellaneous structural construction • Finishing works, including landscaping and general site rehabilitation, where required. • Commissioning of the Proposal • Decommissioning/Demobilisation of the Proposal site, including removal of construction compound(s) and construction environmental controls.

4.3.3 Remediation

A Phase 1 Environmental Site Assessment (ESA) was prepared for the MPE Site as part of the MPE Concept Plan Approval. The Phase 1 ESA noted that a number of areas of potential contamination concern were identified as part of previous investigations across the MPE site; however, these areas of concern would not preclude the continued use of the site for commercial/industrial purposes, if remediated for that use.

Since the preparation of the Phase 1 ESA, additional contamination investigations have been carried out across the Proposal site (refer to Section 13 (Geology, soils and contamination) and Appendix Q (Contamination summary report)).

The contamination summary report noted that there are no specific areas within the Proposal site that require direct remediation. The Proposal site is considered to be suitable for the desired commercial / industrial land use and there are no specific areas requiring direct remediation prior to operation of the Proposal.

4.3.4 Earthworks

Earthworks to facilitate construction of the Proposal would include the delivery of imported clean general fill material by truck-and-dog and / or semi-trailer from multiple sources within the Greater Sydney Metropolitan Area.

Where possible, fill material would be sourced from nearby available off-site sources and transported to the site. During peak construction, it is estimated that approximately 5,000m³ of clean general fill would be imported to the Proposal site per day. Potential construction traffic, noise and air quality related impacts associated with earthworks activities are described and assessed in Section 7, Section 8 and Section 9 of this EIS respectively.

Where possible and subject to its geotechnical suitability, soil excavated during construction of the Proposal would be reused for foundation preparation, levelling works and / or maintenance of construction haulage routes.

Excavated soil which is not considered suitable for re-use on the Proposal site would be temporarily stockpiled within the most appropriate construction compound. All excavated soil not suitable for re-use would be tested prior to being transferred off-site for disposal at an appropriately licensed facility.

As part of construction works period D (Bulk earthworks, drainage and utilities), the building formation of the Proposal site would be adjusted to facilitate drainage and flooding infrastructure (refer to Section 12 for more information regarding stormwater and flooding). The earthworks to be undertaken would also include engineering fill to the terminal hardstand area.

The approximate volumes of clean general fill to be imported to facilitate the adjustment to the building formation of the Proposal site, and for the Moorebank Avenue upgrades, is included in Table 4-9. This fill would be placed across the Proposal site and the Moorebank Avenue site to depths ranging from 1.5m to 3m depending on the topography of the specific area the fill is placed. Preliminary Bulk Earthworks Plans are included in the Stormwater Drainage Design Drawings (refer to Appendix P).

Graders and/or bulldozers (or similar equipment) would be used to move the fill across the Proposal site and the fill would be compacted to achieve the required geotechnical requirements for construction. A water cart would be used at points where fill is unloaded to minimise dust generation, as and when required.

This delivery, compaction and conditioning of the imported clean general fill for construction, would continue until the surface level for laying road pavement or hardstand is achieved. On completion of each layer, a soil technician would test for compliance with the geotechnical (including compaction) requirements.

Table 4-9 Preliminary earthworks volumes

Type	Preliminary volume (m3) (total)	
	MPE Stage 2 site	Moorebank Avenue site
Imported clean general fill material	631,900	63,200
Volume of topsoil strip	53,450	7,000
Cut	220,000	44,700
Fill	882,000	58,500

4.3.5 Soil Management and water diversion

Erosion and sediment control

Sedimentation and Erosion Control Plans for the Proposal are provided within the Stormwater Drainage Design Drawings (refer to Appendix P).

MPE Stage 2 site

Temporary construction sediment basins would be constructed within the location of the proposed permanent operational OSDs to capture and store construction surface water prior to being discharged. Sediment fences would be placed around the perimeter of the MPE Stage 2 site to guide run-off and limit sediment transportation off-site.

Where possible, operational water capture and treatment infrastructure, including swales, open concrete lined drainage channels and OSDs would be established early during construction. During construction, water captured in swales and/ or drainage channels would flow to the temporary construction sediment basins prior to discharge from the Proposal site.

Construction surface water runoff would be discharged from the Proposal site from three existing drainage outlet points; one which flows westwards through the MPW site from the north-western corner and into the Georges River, or from two outlets which flow eastwards into Anzac Creek (one in the north-eastern corner and one in the south-east).

Moorebank Avenue site

Temporary construction erosion and sediment control measures to be implemented during construction of the Moorebank Avenue upgrade would typically include sediment fences along the western perimeter of Moorebank Avenue, sedimentation ponds and hay bales around existing stormwater pit inlets.

At the end of each day, or if rain is expected, the surface of the direct placement area would be sealed using a smooth drum roller and the surface trimmed using a grader to ensure rain would run off to sediment and erosion control infrastructure.

4.3.6 Construction Workforce and Hours

Construction workforce

It is anticipated that construction of the Proposal would require approximately 600 construction personnel across the duration of the construction program (refer to Section 4.3.2). The total construction workforce includes tradesman and construction personnel, subcontractor construction personnel and engineering, functional and administrative staff. During peak construction, the Proposal would require around 200 construction personnel on-site per day (Approximately 150 for construction of the Proposal on the MPE Stage 2 site, and 50 for the construction of the Moorebank Avenue upgrade).

Construction hours

Construction works would generally be undertaken during standard daytime construction working hours, being:

- 7 am to 6 pm Monday to Friday
- 8 am to 1 pm Saturday
- No works on Sunday or Public Holidays.

Bulk earthworks activities and construction works to facilitate the Moorebank Avenue upgrade during peak construction periods may be undertaken outside of standard construction hours, but not during the night-time (i.e. 10pm to 7am).

The proposed construction hours for activities associated with bulk earthworks and construction of the Moorebank Avenue upgrade are summarised in Table 4-10.

Table 4-10 Construction hours for activities associated with bulk earthworks and the Moorebank Avenue upgrade

Construction activity	Construction hours	
	Weekdays	Saturdays
Material Delivery	6am-10pm	7am-6pm
Direct placement	7am-10pm	8am -6pm
Stockpiling	7am-6pm	7am-6pm
Crushing	7am-6pm	8am-1pm
Moorebank Avenue upgrade	6am – 10pm	7am – 6pm

Some additional construction works would be undertaken outside of standard daytime construction working hours, subject to consultation with the relevant authorities and in accordance with the *Interim Construction Noise Guidelines* (DECC, 2009), including:

- Any works which would not result in audible noise emissions at any nearby sensitive receptors.
- The delivery of oversized plant and/or structures that police or other authorities determine require special arrangements to transport along public roads
- Emergency work to avoid the loss of lives, property and/or to prevent environmental harm
- Maintenance and repair of public infrastructure where disruption to essential services and/or consideration of worker safety do not allow work within standard construction hours.
- Public infrastructure works that shorten the length of the project and are supported by noise-sensitive receivers.
- Construction works where it can be demonstrated and justified that these works are required to be undertaken outside of standard construction hours.
- Any other work as approved through the Construction Noise and Vibration Management Plan.

4.3.7 Plant and Equipment

A range of plant and equipment would be required for the construction of the Proposal. A summary of the indicative plant and equipment likely to be utilised is provided in Table 4-11.

Table 4-11 Indicative construction plant and equipment for the Proposal

Equipment	Construction works period						
	Works period A – Pre-construction activities	Works period B - Site Preparation activities	Works period C: Construction of the Moorebank Avenue diversion road	Works period E - Road and intersection works to facilitate the Moorebank Avenue Upgr.	Works period D – Bulk earthworks, drainage and utilities	Works period F - Construction and internal fit-out of warehousing	Works period G – Miscellaneous construction and finishing works
Loaders		✓			✓	✓	✓
Static and vibratory rollers, and high energy impact compaction	✓	✓	✓	✓	✓	✓	
Mobile cranes	✓	✓			✓	✓	
Excavators	✓	✓	✓	✓	✓	✓	
Excavators with hammers		✓			✓		
Backhoes		✓			✓	✓	✓
825 Compactor			✓	✓			
Crushing plant		✓			✓		
Batch plant					✓	✓	
Concrete agitators (or similar)		✓			✓	✓	✓
Concrete pumps		✓			✓	✓	✓
Concrete saws					✓	✓	✓
Air compressors					✓	✓	✓
Jackhammers						✓	✓
Dozers		✓	✓	✓	✓		
Mulchers		✓					
20-40 tonne articulated tipper trucks	✓	✓			✓		
Scrapers		✓			✓		

Equipment	Construction works period						
	Works period A – Pre-construction activities	Works period B - Site Preparation activities	Works period C: Construction of the Moorebank Avenue diversion road	Works period E - Road and intersection works to facilitate the Moorebank Avenue Upgr.	Works period D – Bulk earthworks, drainage and utilities	Works period F - Construction and internal fit-out of warehousing	Works period G – Miscellaneous construction and finishing works
Graders	✓	✓	✓	✓	✓	✓	
Water trucks	✓	✓	✓	✓	✓	✓	✓
Piling rigs					✓	✓	
Forklifts					✓	✓	✓
Small earthmoving equipment	✓				✓	✓	✓
Welder					✓	✓	✓
Road profiler			✓	✓			
Rubber Roller			✓	✓			

4.3.8 Traffic movement and site access

MPE Stage 2 site

Access to and egress from the MPE Stage 2 site during construction would be via the existing DSNDC northern access, to the north of the MPE Stage 1 Proposal. At the completion of construction, this access point would transition to the main operational entry point for vehicles accessing and egressing the MPE Stage 2 site's warehouse and distribution facilities (refer to Section 4.3 for more information about the operation of the project, including the built form).

Construction traffic would generally use the future internal road network within the MPE Stage 2 site as construction haulage routes (refer to Section 4.2.3 for more information) (i.e. internal roads, service roads and internal transfer roads). Once entering the MPE Stage 2 site, heavy vehicles would generally travel along internal road 1, internal road 2 and service roads 2 and 3 for access to the Main Warehousing compound.

During construction, these roads would be comprised of a compacted gravel base, hardstand or similar material and would be two lanes wide (one lane in each direction). The estimated construction traffic movements (includes ingress and egress from the site, i.e. includes both trips) associated with construction works within the MPE Stage 2 site are presented in Section 7 and Appendix K of this EIS.

Moorebank Avenue

Construction works to facilitate the Moorebank Avenue upgrade would not commence until the Moorebank Avenue diversion road is operational.

Construction vehicles (including general light and heavy construction vehicles, and heavy vehicles importing clean general fill material) would typically access the Moorebank Avenue site from the north, via a gated access point off Moorebank Avenue. During construction hours, a 'gateman' or construction traffic controller, would direct construction vehicles from the access gate to either the Moorebank Avenue Compound or to the road formation for the direct placement of fill material.

Vehicles would exit the Moorebank Avenue site via a second gated egress point at the southernmost extent of the Moorebank Avenue upgrade, or be directed to make a u-turn within the construction area and exit the site via the northern gate. Construction vehicles would then travel northwards along the Moorebank Avenue diversion road and Moorebank Avenue towards the M5 Motorway.

Construction vehicle movements within the Moorebank Avenue site would follow the procedures outlined in the Construction Traffic Management Plan (CTMP) (refer to Appendix K). The estimated construction traffic movements (includes ingress and egress from the site, i.e. includes both trips) associated with the Moorebank Avenue are presented in Section 7 and Appendix K of this EIS.

Traffic movements along Moorebank Avenue diversion road during construction

To facilitate the Moorebank Avenue upgrade, the Moorebank Avenue diversion road would be constructed within the MPW site (refer to Figure 4-1) to maintain traffic movements along Moorebank Avenue. It is envisaged that construction within the Moorebank Avenue site would comprise five key stages:

- Construction of the Moorebank Avenue diversion road, temporary intersections and traffic management infrastructure
- Switching of traffic from the existing Moorebank Avenue to the Moorebank Avenue diversion road
- Construction of the Moorebank Avenue upgrade
- Switching of traffic from the Moorebank Avenue diversion road to the upgraded Moorebank Avenue
- Decommissioning and rehabilitation (where required) of the Moorebank Avenue diversion road.

Throughout construction of the Moorebank Avenue upgrade, the temporary intersections to be constructed would provide the same turning movements and accessibility to the MPE and MPW sites as the existing intersections along Moorebank Avenue.

There is the potential that the Moorebank Avenue upgrade may be completed in a number of stages, which would also result in a series of staged traffic switches. Staged construction of the Moorebank Avenue upgrade would be investigated further during the detailed design stage of the Proposal.

During construction, a construction zone speed limit of 40 kilometres per hour would apply along the Moorebank Avenue diversion road. Impacts of the Proposal on road network performance are described further in Section 7 (Traffic and transport) and Appendix K.

4.3.9 Construction compounds

Temporary construction compounds would be required to support construction of the Proposal. The locations of these compounds are indicative and subject to confirmation by the construction contractor, once appointed.

It is envisaged that construction of the Proposal would require the use of two construction compounds:

- The Warehousing Compound, within the MPE Stage 2 site
- The Moorebank Avenue Compound, within the MPW site and immediately west of Moorebank Avenue.

The location and indicative layout of the construction compounds are shown in Figure 4-8.

Construction compound and stockpile sites would be temporary in nature and removed / decommissioned at the completion of construction. Residual land where the construction compounds are not situated within the footprint of the operational area would be rehabilitated upon completion of the works to the pre-construction standard or as otherwise agreed with the relevant landowner.

In the event that other compounds are required, the following site selection criteria would be applied to their location:

- Access to the local road network.
- Relatively level land.
- Greater than 40 m of a watercourse.
- Greater than 20 m from threatened species and endangered ecological communities.
- Greater than 100 m from a residential dwelling.
- No requirement to remove any native vegetation beyond that otherwise being undertaken for the proposal.
- No requirement to undertake any significant ground disturbing works.
- No impact on any heritage items (Indigenous or non-Indigenous).
- Not unreasonably affect the land use of adjacent properties.

Consideration to all of the above factors would be undertaken prior to the establishment of any additional construction compound or stockpiles for the purpose of the Proposal.

Warehousing Compound

The main construction compound for the Proposal (herein referred to as the Warehousing Compound) would be located within land proposed to be used as the Stage 1 Proposal's main IMT compound on the MPE Stage 2 site (refer to Figure 4-8).

It is expected that some additional satellite compounds would be required during the construction of each individual warehouse on the Proposal site; however, the Warehousing Compound would be used for the majority of construction works.

The Warehousing Compound would include:

- A site office(s)
- Staff amenities
- Car parking
- Storage and laydown areas
- Materials testing facilities
- Material crushing facilities
- A concrete batching plant.

The indicative layout of the Warehousing Compound is shown on Figure 4-8.

Concrete batching plant

A concrete batching plant would be located within the Warehousing Compound during construction. For the purposes of this environmental assessment, the concrete batching plant has been assumed to be located within the southernmost extent of the Warehousing Compound (refer to Figure 4-8), however this is subject to confirmation from the construction contractor.

Materials crushing

Materials crushing facilities would also be located within the Warehousing Compound during construction. Similar to the concrete batching plant, for the purposes of this environmental assessment, the materials crushing equipment required for construction of the proposal has been assumed to be located immediately north of the concrete batching plant at the southernmost extent of the Warehousing Compound (refer to Figure 4-8); however, this is subject to confirmation from the construction contractor.

Car parking

At the commencement of construction, car parking for construction personnel would be provided within the Warehousing Compound (refer Figure 4-8). Car parking facilities would be accessed and egressed via the MPE site access and a construction compound access road and gate.

Moorebank Avenue Compound

The Moorebank Avenue Compound would be located on the western side of Moorebank Avenue, in an existing area of hardstand within the MPW site. This area was previously used as a staff car park and as such, is characterised by large areas of level paved / hardstand surfaces and narrow garden beds that support a small number of trees.

The Moorebank Avenue Compound would include, site offices, car parking, and equipment storage and laydown areas, with some materials such as pre-cast culverts being temporarily stored within the compound area on occasion. The entrance to this compound would be generally at the location of the existing intersection off Moorebank Avenue, from within the Moorebank Avenue site.

The indicative location of the Moorebank Avenue Compound is shown on Figure 4-8.

4.3.10 Construction Environmental Management Plan

A *Preliminary Construction Environmental Management Plan* (PCEMP) has been prepared for the Proposal (refer to Appendix G). The purpose of this PCEMP is to provide the preliminary overarching framework for the management of all potential environmental impacts resulting from construction activities.

A number of other preliminary construction related management plans have also been prepared for the Proposal, including:

- *Preliminary Construction Traffic Management Plan* (Appendix K)
- *Air Quality Management Plan* (Appendix M)
- *Preliminary Erosion and Sediment Control Plan* (Appendix P)
- *Bulk Earthworks Plan* (Appendix P)

This PCEMP and these management plans would form the basis of the Construction Environmental Management Plan (CEMP) and associated plans to be prepared for the Proposal, prior to construction.

4.4 Operation

4.4.1 Warehousing

Heavy and light vehicles would access the warehouses via the main site access off Moorebank Avenue, as detailed in Section 4.2.3 of this EIS. Light vehicles would park in the allocated parking area adjacent to each warehouse, and heavy vehicles would progress to the truck loading/unloading areas alongside each warehouse. Once in location these trucks would be loaded/unloaded via manual handling equipment. Once loaded the trucks would then be distributed to markets via the nearby major road network or transported directly to the IMT facility for dispatch via port shuttles to a Sydney-based port (e.g. Port Botany).

The extent of dangerous goods to be handled in warehouses, and the associated hazard and risk assessment is discussed in the Section 14 of this EIS.

Use

Approval is sought for the use of individual warehouses by future tenants. Detailed information relating to use of the warehouses is provided throughout this EIS, namely:

- Internal layout – refer to Section 4.2.1 of this EIS
- Operational workforce – refer to Section 4.4.3 of this EIS
- Hours of operation - refer to Section 4.4.3 of this EIS
- Access and car parking – refer to Sections 4.2.3 of this EIS
- Signage – refer to Section 4.2.5 of this EIS.

Individual tenants would be confirmed post-approval, however their operation would be consistent with the details provided in this EIS (refer to comments above) and described in more detail in the Operational Environmental Management Plan (OEMP) for the Proposal.

4.4.2 Freight village

Vehicles would access the freight village via the main site access off Moorebank Avenue and the internal road network. Light vehicles would access and egress the area directly via the allocated parking area within the freight village.

Use

Approval is sought for the use of the freight village by future tenants. Detailed information relating to use of the precinct amenities area is provided throughout this EIS, namely:

- Internal layout – refer to Section 4.2.2 of this EIS
- Operational workforce – refer to Section 4.4.3 of this EIS
- Hours of operation - refer to Section 4.4.3 of this EIS
- Access and car parking – refer to Sections 4.2.3 of this EIS
- Signage – refer to Section 4.2.5 of this EIS.

Individual tenants would be confirmed post-approval, however their operation would be consistent with the details provided in this EIS and described in more detail in the Operational Environmental Management Plan (OEMP) for the Proposal.

Any food premises located within the freight village would be constructed and operated to meet Australian Standards (as relevant), including:

- AS 4674-2004: Construction and fit out of food premises
- AS 4322-1995: Quality and performance of commercial electrical appliances - Hot food storage and display equipment
- AS ISO 22000—2005: Food safety management systems—Requirements for any organisation in the food chain.

In addition, operations for food premises within the freight village would comply with the Australia New Zealand Food Standards Code.

4.4.3 Operational workforce and hours

The operational workforce for the Proposal would comprise of approximately 1,408 full time equivalent staff, who would work in three shifts. The Proposal would operate 24 hours per day and seven days per week, which would allow for an increased number of freight related movements to occur outside of peak traffic periods.

The operational hours of the freight village would be 7am to 6pm, five to seven days per week, and there would be a total of 25 staff members during operation. Traffic movements, access and parking

Road traffic

As described in Section 4.2.3, heavy vehicles would access and egress the MPE Stage 2 site via the new site access off Moorebank Avenue. Cars would also access the MPE Stage 2 site via the main access off Moorebank Avenue. Car parking spaces would be available on-site for the operational workforce and visitors.

In addition, internal roads within the site would enable heavy and light vehicle movements around the warehousing area. Car parking would also be provided for each warehouse at a ratio of 1:300 per GFA of warehousing and 1:40 per GFA for offices. Car parking spaces would be calculated based on projected staffing numbers for warehouses, and would take into account overlap for change of shift.

A summary of the truck and car numbers for the operation of the Proposal are provided in Table 4-12. The potential traffic and transport impacts associated with the operational truck and car movements are detailed further in Section 7 and Appendix K of this EIS.

Table 4-12 Operational truck and car movements

Trip type		Vehicle movements per day (2-way round trip)		
		External (i.e. using the external road network)	Internal (i.e. movement within the MPE Stage 2 site only)	Total
Truck movements	External truck trips via external road network	564	582	1,146
Car movements	Warehouses/freight village	3,872	N/A	3,872

4.5 Site security

The Proposal includes a number of on-site security measures to ensure the protection and safety of the Proposal site, its employees and authorised visitors. Security at the Proposal site would include:

- Fencing around the perimeter of the Proposal site, which is envisaged to include palisade fencing and chain-link fencing along the Moorebank Avenue boundary and chain-link at other locations (refer to Section 4.2.5 of this EIS)
- A closed circuit television (CCTV) security system at key locations including site entrances and along boundaries
- An integrated telecommunications system which involves connection to all main buildings and structures.

4.6 Operational Environmental Management Plan

An Operational Environmental Management Plan (OEMP) would be prepared to provide the overarching framework for the management of all potential environmental impacts resulting from the operation of the Proposal.

A number of operational related management plans have been prepared for the Proposal, including:

- Preliminary Operational Traffic Management Plan prepared by Arcadis (refer to Appendix K of this EIS)
- Air Quality Management Plan (refer to Appendix M of this EIS)
- Stormwater and Drainage Design Drawings (refer to Appendix P of this EIS).

These management plans, along with others, would form the basis of the OEMP to be prepared for the Proposal, prior to operation.

This Proposal also seeks approval for ongoing maintenance which would be undertaken periodically throughout operations.

Maintenance would include, but not be limited to:

- Pavements: Ongoing surface and joint repair depending on the pavement type, with subgrade repair where necessary
- Stormwater: Regular sediment and pollutant clean out and repairs to drainage infrastructure, including six monthly maintenance of gross pollutant traps (GPTs)
- Electrical and Communications equipment: Ongoing maintenance and replacement where necessary. Equipment includes light poles, distribution boards, CCTV, boom gates, card readers etc.
- Line marking and other ancillary road furniture: Line marks would be re-lined and road furniture repaired or replaced as necessary
- Fencing and gates: Ongoing fence and gate repair
- Warehouses: Ongoing infrastructure and plant/equipment repair and replacement as necessary

Relevant activities and management measures would be detailed in the OEMP.

5 STATUTORY PLANNING APPROVALS

As noted in Section 1.7 of this EIS, the Proposal is classified as SSD under the *Environmental Planning and Assessment Act 1979* and is therefore to be assessed under Part 4, Division 4.1 of the EP&A Act. Assessment and operation of the Proposal is subject to both Commonwealth and State legislation. The following sections describe the planning assessment process that is applicable to the Proposal and summarises environmental planning legislation that has been considered during the preparation of this EIS.

5.1 Commonwealth legislation

5.1.1 *Environment Protection and Biodiversity Conservation Act 1999*

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places (defined in the Act as matters of national environmental significance (MNES)) – as well as to govern actions undertaken on Commonwealth Land. The MNES that are protected under the EPBC Act are:

- World heritage properties
- National heritage places
- Wetlands of international importance
- Listed threatened species and ecological communities
- Migratory species
- Commonwealth marine areas
- The Great Barrier Reef National Park
- Nuclear actions (including uranium mines)
- An action on Commonwealth land which is likely to have a significant impact on the environment
- Coal seam gas activities that pose risk to water resources.

The MPE Project was declared a controlled action by the Commonwealth Minister of the Environment due to the potential for the Project to impact on listed threatened species and communities (sections 18 and 18A of the EPBC Act), and Commonwealth Land (sections 27 and 27A of the EPBC Act).

Approval was granted for the MPE Project by the Commonwealth Minister for the Environment on 6 March 2014 (No. 2011/6229). Subject to the implementation of the EPBC Act conditions of approval, no additional assessment or approval is required under the EPBC Act.

5.1.1.1 Compliance with EPBC Approval No. 2011/6229

EPBC Approval (No.2011/6229) for the MPE Project, issued in March 2014 was subject to a number of conditions of approval. The consistency of the Proposal with these conditions is provided in Table 5-1. Overall, it is concluded that the Proposal is consistent with the relevant conditions of the EPBC Approval.

Table 5-1 Compliance of the Proposal with the relevant EPBC Conditions of Approval

EPBC conditions of approval	Where/how addressed
Protection of EPBC flora and fauna and the environment on Commonwealth land	<p>An assessment of impacts to Commonwealth land and threatened flora and fauna, has been included in this EIS at Chapter 11 (Biodiversity), Section 19.3 (Property and Infrastructure) and Appendix O (Biodiversity Assessment Report).</p> <p>A number of design refinements have been made to the Proposal subsequent to the MPE Concept Plan Approval and EPBC EIS to attempt to reduce and minimise environmental impacts of the Proposal.</p>
Flora and Fauna Management Plan	<p>A threatened flora and fauna management plan has been prepared as part of the MPE Stage 1 Proposal. Given the minor nature of native vegetation clearance works for the Proposal, and the fact that the Proposal would not significantly impact on threatened flora and fauna listed in the EPBC Conditions of approval, a flora and fauna management plan is not required at this stage.</p>
Threatened Flora Offset Management Plan	<p>The Proposal would require the removal of 0.1 ha of Castlereagh Scribbly Gum Woodland, an EPBC listed Endangered Ecological Community (EEC), and 0.05 ha of Cooks River Castlereagh Ironbark Forest, an EPBC listed Critically Endangered Ecological Community (CEEC). The potential impacts of the removal of this vegetation has been considered in the Biodiversity Assessment Report for the Proposal and Biodiversity Offset Strategy for the MPE Stage 1 Proposal. The preparation of a threatened flora offset management plan for this vegetation clearance is not required at this stage.</p>
Construction Environment Management Plan	<p>A Preliminary Construction Environmental Management Plan (PCEMP) has been prepared and is included in Appendix G of this EIS.</p> <p>It is intended that the PCEMP and associated management plans would form the basis of the Construction Environmental Management Plan (CEMP) and associated plans to be prepared for the Proposal, prior to construction.</p>
Operation Management Plan	<p>An Operational Environmental Management Plan (OEMP) would be prepared to provide the overarching framework for the management of all potential environmental impacts resulting from the operation of the Proposal. Additional information is provided in Section 4.5.</p> <p>In addition, operational air quality has been considered in an air quality management plan that has been prepared for the Proposal (refer to Chapter 9 and Appendix M for more information).</p>
Administrative conditions	<p>Administrative conditions have been noted and would be undertaken as required.</p>

5.2 State legislation

5.2.1 Environmental Planning and Assessment Act 1979

The NSW environmental planning and assessment framework is established by the EP&A Act, which sets out approval requirements and provides for the making of environmental planning instruments (EPIs), which in turn determine the relevant planning approval pathway for development in NSW.

Part 3 of the EP&A Act provides for the formation of EPIs, which can take the form of local environmental plans (LEPs) or State Environmental Planning Policies (SEPPs). EPIs contain provisions that control the permissibility of development and identify when development approval is required.

EPIs that are applicable to the Proposal include:

- *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP)
- *State Environmental Planning Policy (State and Regional Development) 2011* (State and Regional Development SEPP)
- *State Environmental Planning Policy No.33 - Hazardous and offensive development* (SEPP 33)
- *State Environmental Planning Policy No. 55 - Remediation of land* (SEPP 55)
- *State Environmental Planning Policy No. 64 - Advertising and signage* (SEPP 64)
- *Greater Metropolitan Regional Environmental Plan No.2 - Georges River Catchment* (GMREP No.2)
- *Liverpool Local Environment Plan 2008* (Liverpool LEP)

This legislation and the applicability to the Proposal is discussed in more detail below.

Planning approval pathway

On 9 November 2010, the MPE Project was declared by the then Minister for Planning to be a development of a type that is described in Schedule 1, Group 8, clause 23 of *State Environmental Planning Policy (Major Development) 2005* and, as such, was to be assessed under the provisions of Part 3A of the EP&A Act (now repealed) for the purposes of Section 75B of the Act. At the same time, the then Minister for Planning authorised the submission of a Concept Plan for the MPE Project under Section 75M(1) of the EP&A Act (now repealed). Transitional arrangements for Part 3A projects under Schedule 6A of the EP&A Act continue to apply to the MPE Project and this Proposal¹.

MPE Concept Plan Approval was granted on 29 September 2014 by the PAC as delegate to the Minister for Planning. The MPE Concept Plan Approval, under Part 3A, Section 75O of the EP&A Act is for:

“use of the site [Project site] as an intermodal facility, including a rail link to the Southern Sydney Freight Line within an identified rail corridor, warehouse and distribution facilities, freight village (ancillary site and operational services), stormwater, landscaping, servicing and associated works”.

¹ Part 3A of the EP&A Act was repealed on 31 October 2011. Transitional arrangements for projects (including concept plans) approved under Part 3A of the EP&A Act before its repeal are provided in Schedule 6A of the EP&A Act.

The MPE Concept Plan Approval Conditions of Approval require the construction or operation of any part of the MPE Project to be subject to separate development consent under the EP&A Act. The MPE Concept Plan Approval states that approval to carry out the MPE Project is subject to the provisions of Part 4, Division 4.1 of the EP&A Act, and any environmental assessment would be carried out in accordance with the future environmental assessment requirements, specified in Part 2 of Schedule 3 of the MPE Concept Plan Approval Conditions of Approval.

In addition, Section 8(1) of the State and Regional Development SEPP states that;

'Development is declared to be State significant development for the purposes of the Act if:

- (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.'*

The MPE Project is located on land zoned as IN1 General Industrial under the *Liverpool Local Environmental Plan 2008* (Liverpool LEP). The project is classified as a freight distribution facility and warehouse or distribution centre, both of which are permitted with consent under the Liverpool LEP.

In addition to this, clause 12(1) of Schedule 1 of the State and Regional Development SEPP states that development for the purposes of warehouses or distribution centres is considered to be State significant if *'Development has a capital investment value of more than \$50 million for the purpose of warehouse or distribution centres (including container storage facilities) at one location and related to the same operation'*.

As the capital investment value of the Proposal is estimated to be approximately \$454 million AUD (excluding GST), the Proposal would exceed the \$50 million AUD threshold prescribed in clause 12(1) of Schedule 1 of the State and Regional Development SEPP, and would be for the purpose of warehouses or distribution centres, the Proposal is declared to be SSD under the State and Regional Development SEPP.

In accordance with the MPE Concept Plan Approval, development consent is sought for the Proposal under Part 4, Division 4.1 of the EP&A Act.

Compliance with the MPE Concept Plan Approval

The MPE Concept Plan Approval², issued on 29 September 2014 was subject to Conditions of Approval. The consistency of the Proposal with the MPE Concept Plan Approval conditions and Statement of Commitments is provided in Appendix A.

In general, the Proposal is considered to be consistent with the relevant conditions of the MPE Concept Plan Approval. The Proposal does however include some elements that could be considered inconsistent (not 'generally in accordance') with the MPE Concept Plan Approval. These are to be addressed in the form of a modification to the MPE Concept Plan Approval, to be submitted concurrently, but separate, to this EIS.

² A modification (SSD MP 10_0193- MOD 1) is currently under the final stages of assessment by DP&E. This modification seeks an amendment to accommodate the use of additional parcels of land and an alternative agreement (rather than a Voluntary Planning Agreement) for the extension of the 901 bus route.

Compliance with Section 79C of the EP&A Act

As discussed above, approval is sought for the Proposal under Part 4, Division 4.1 of the EP&A Act. As approval for the Proposal is through a DA, and as stated in the SEARs, the Proposal must comply with the 'matters for consideration' under Section 79C(1) of the Act.

Table 5-2 provides a summary of the Proposal's consistency with Section 79C of the EP&A Act. In summary, the Proposal complies with the matters for consideration under Section 79C(1) of the EP&A Act and is therefore considered suitable for approval under Part 4, Division 4.1 of the Act.

Table 5-2 Compliance of the Proposal with the matters for consideration under Section 79C(1) of the EP&A Act

Section 79C(1)	Matter for consideration	Comments
(a)	<p>The provisions of:</p> <ul style="list-style-type: none"> (i) any environmental planning instrument (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and (iii) any development control plan, and (iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and (v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), <p>that apply to the land to which the development application relates,</p>	<p>A detailed assessment of the Proposal, having regard to relevant Acts (Federal and State), EPIs and planning policies has been provided in Chapter 3 and Chapter 5 of this EIS.</p> <p>The Proposal is consistent with State planning policies as it forms part of the MPE Project which facilitates the operation of an IMT Facility with warehouse and distribution facilities at Moorebank, which will lead to an increase in freight rail movements across the Sydney Greater Metropolitan Area.</p> <p>Further, the assessment of the Proposal provided in this EIS has considered all relevant Acts and EPIs. The Proposal is generally compliant with this legislation and, as relevant, includes mitigation measures to ensure compliance is met throughout construction and operation.</p>
(b)	<p>the likely impacts of that development, including environmental impacts</p>	<p>This EIS has undertaken a detailed assessment of the potential impacts associated with the</p>

Section 79C(1)	Matter for consideration	Comments
	<p>on both the natural and built environments, and social and economic impacts in the locality,</p>	<p>construction and operation of the Proposal (refer to Section 7 to Section 19).</p> <p>The assessment of environmental impact presented in this EIS has not identified any significant environmental impacts. Further, the environmental impacts that have been identified would be mitigated through the implementation of the measures summarised in Chapter 21 during construction and operation of the Proposal.</p>
(c)	<p>the suitability of the site for the development</p>	<p>The EA prepared for the MPE Concept Plan Approval considered the suitability of the MPE site for the development of the MPE Project, including warehouse and distribution facilities. The MPE Concept Plan Approval is considered recognition, by State government and the relevant authorities and agencies, that; subject to the implementation of appropriate mitigation measures, the MPE site is suitable for the development of the MPE Project, inclusive of the Proposal. Further, as discussed above, the MPE site is considered suitable as in that:</p> <ul style="list-style-type: none"> • It is situated in close proximity to the SSFL • There is a direct intersection linking the adjacent Moorebank Avenue to the M5 Motorway • It is zoned as IN1 industrial land for use as industrial warehousing • Buffer zones are provided between the facility and nearby residential areas • It is within the catchment for which there is a demand, resulting in minimal use of road transport between origins/destinations and the MPE site • The location has been identified in both State and Commonwealth planning strategies as the best and only location for an intermodal terminal to service this defined catchment in South-Western Sydney. <p>The MPE site, including the Proposal site, is therefore considered to be suitable for the development of the Proposal.</p>

Section 79C(1)	Matter for consideration	Comments
(d)	any submissions made in accordance with this Act or the regulations	<p>A number of submissions were made by stakeholders (both private and public) during the public exhibition of the MPE Concept Plan Approval (28 March to 28 May 2012 and 4 September to 21 October 2013) and EPBC Approval (9 June 2013 to 13 August 2013 (draft) and October 2013 to 5 December 2013 (final)). Although these submissions received were relating to previous approvals, they have been considered throughout the design of the Proposal, and the preparation of this EIS.</p> <p>During the preparation of this EIS, consultation has been undertaken specific to the Proposal with government stakeholders and the community. The comments received during this consultation have been considered and, as relevant, addressed in this EIS (refer to Section 6).</p> <p>Additional consultation would be undertaken throughout the assessment of the Proposal, in particular, with submissions received during the exhibition of the EIS. Responses to submissions received during the public exhibition of the EIS would be provided in a Response to submissions report and/or a Preferred Project Report.</p>
(e)	the public interest	<p>As discussed above, this EIS has been prepared based on consultation undertaken with government agencies, service and infrastructure providers, specialist interest groups (including Local Aboriginal Land Councils (LALCs)) and the public. Where possible, the design of the Proposal has been amended to address concerns raised through consultation that has been undertaken to-date, and to reduce the environmental impact of the Proposal on the surrounding biophysical and social environments.</p> <p>The Proposal would result in some positive impacts, which are likely to be experienced more at a regional level. Direct beneficial and adverse impacts of the development are expected at a more local level.</p> <p>The Proposal is consistent with State and regional planning policies and includes a number of benefits which would be experienced as a result of the Proposal's operation. Positive economic impacts of the Proposal would be experienced at both a local and regional level.</p> <p>This EIS includes a number of mitigation measures which would further reduce the impact of the Proposal on the surrounding built, social and natural environment.</p> <p>Overall the construction and operation of the Proposal is considered to be in the public interest.</p>

Section 89J of the EP&A Act details the approvals under other NSW legislation which do not apply to SSD projects under Part 4, Division 4.1 of the EP&A Act. Those approvals which are not required by virtue of section 89J of the EP&A Act, but may ordinarily be required for a Proposal of this kind are outlined in Table 5-3. Although these approvals are not required for the Proposal, an assessment of the relevant potential impacts has been undertaken as part of this EIS.

Table 5-3 Relevant approvals which are not required for State significant development

Legislation	Approval	Requirement	Relevant to the Proposal	Where addressed in this EIS
<i>Fisheries Management Act 1994</i> (FM Act)	Section 201	Dredging and reclamation works	No – the Proposal would not require dredging or reclamation works	Chapter 12 (Stormwater and flooding) and Appendix P
	Section 219	Blocking fish passage	No – the Proposal would not block fish passage	Chapter 12 (Stormwater and flooding) and Appendix P
<i>Heritage Act 1977</i> (Heritage Act)	Section 139	Potential impact on relics not listed on the State Heritage Register or protected by an Interim Heritage Order	No – the Proposal would not impact on relics not listed on the State Heritage Register or protected by an Interim Heritage Order	Chapter 17 (Non-Indigenous heritage) and Appendix T
<i>National Parks and Wildlife Act 1974</i> (NPW Act)	Section 90	Aboriginal heritage impact permit	No – the Proposal would not require an AHIP	Chapter 16 (Aboriginal heritage) and Appendix S
<i>Water Management Act 2000</i> (WM Act)	Section 89	Water use approval	Notwithstanding the Proposal's classification as SSD, the Proposal would not ordinarily require a water use approval	Chapter 12 (Stormwater and flooding) and Appendix P
	Section 90	Water management work approval	Yes - the Proposal would ordinarily require a water management work approval if it was not classified as SSD.	Chapter 12 (Stormwater and flooding) and Appendix P

Additionally, Section 89K details approvals under other legislation which cannot be refused and must be applied consistently to SSD. These approvals relevant to the Proposal are:

- An Environmental Protection Licence (EPL) under Part 3 of the *Protection of the Environment Operations Act 1997*
- Consent under Section 138 of the *Roads Act 1993*.

These approvals, and other NSW legislation relevant to the Proposal are described in the Section 5.3.1 to Section 5.3.6.

5.2.2 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is the key piece of environmental protection legislation administered by the Environment Protection Authority (EPA). The principle objectives of the POEO Act are to:

- Protect, restore and enhance the quality of the environment, while having regard to the principles of ecologically sustainable development (ESD).
- Provide increased opportunities for public involvement and participation in environment protection.
- Reduce risks to human health and prevent the degradation of the environment.
- Assist in the achievement of the objectives of the *Waste Avoidance and Resource Recovery Act 2001*.

An EPL may be issued under section 43(a) of the POEO Act to authorise the carrying out of scheduled activities at any premises, as required under section 48. The requirement for an EPL under Section 48(1) applies to activities where Schedule 1 of the POEO Act indicates that a licence is required for premises at which the activity is carried out on.

Under clause 13(1) of Schedule 1 of the POEO Act, an EPL is required for concrete works, meaning the production of concrete products, but does not include the production of pre-mixed concrete. As the concrete batching plant to be used within the main warehousing compound during construction of the Proposal would only be for pre-mixed concrete batching, an EPL for this activity is not required.

Under clause 16(1) of Schedule 1 of the POEO Act, the Proposal would meet the definition of 'crushing, grinding or separating', meaning the processing of materials, meaning the '*processing of materials (including sand, gravel, rock or minerals, but not including waste of any description) by crushing, grinding or separating them into difference sizes*'. As the Proposal would have the capacity to process more than 150 tonnes of material per day or 30,000 tonnes of material per year, the Proposal would be declared a scheduled activity and an EPL would be required.

The POEO Act also establishes a range of pollution offences and penalties that are applicable to all activities undertaken on a site. Specific pollution offences are created for actions associated with:

- Water pollution.
- Air pollution.
- Noise pollution.
- Land pollution.
- Littering and waste.

Construction and operation of the Proposal would be undertaken in accordance with the requirements of the POEO Act.

5.2.3 Roads Act 1993

The *Roads Act 1993* (Roads Act) administers activities in, on, under or over a public road. This Act is administered by NSW Roads and Maritime Services (Roads and Maritime), the relevant local council(s) or the NSW Land and Property Management Authority (LPMA), depending on the road classification. Roads and Maritime has jurisdiction over major roads, and the local council over local roads.

Under Section 138 of the Roads Act, approval is required for works undertaken within a public road reserve. An approval under Section 138 of the Roads Act must be consistent with any conditions of consent under Division 4.1, Part 4 of the EP&A Act (Section 89K(f), EP&A Act).

Moorebank Avenue, to the south of the intersection with Anzac Road, is owned by the Commonwealth of Australia and, as such, the *Roads Act 1993* does not apply. Notwithstanding, it is acknowledged that Moorebank Avenue is utilised by the public and an assessment of potential impacts has been undertaken and is provided in Chapter 7 and Appendix K of this EIS.

5.2.4 Threatened Species Conservation Act 1995

The *Threatened Species Conservation Act 1995* (TSC Act) provides for the conservation and protection of threatened species, populations, ecological communities and their habitat. The TSC Act sets out provisions for planning and assessment of impacts on threatened species, populations and ecological communities listed under schedules 1, 1A and 2 of the Act.

The TSC Act lists a number of factors to be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats. Schedules 1 and 2 of the TSC Act lists species, populations or ecological communities of native flora and fauna considered to be threatened in NSW. DAs and environmental assessments which need consent are required to be assessed with regard to the purpose of the TSC Act and consideration given to the significance of any impact on listed species.

A Biodiversity Assessment Report (BAR), has been prepared for the Proposal in accordance with the Framework for Biodiversity Assessment (FBA) (OEH, 2015) to assess and quantify the impacts of the Proposal on biodiversity values. Section 11 provides an assessment of the potential impacts of the Proposal on biodiversity and the BAR has been provided in Appendix O.

5.2.5 Noxious Weeds Act 1993

The *Noxious Weeds Act 1993* (NW Act) establishes control mechanisms to reduce the negative impacts of weeds in the economy, community and the environment. Under the NW Act the Minister may make a weed control order to manage the spread of certain weeds. The NW Act identifies individual classes (based on their prohibition in geographic areas) for types of noxious weeds.

A noxious weed that is classified as a Class 1, 2 or 5 noxious weed is referred to in the NW Act as a 'notifiable weed'. The occupier of land must notify the local council for the land that there are notifiable weeds present on the land. Weeds identified as 'Weeds of National Significance', listed by the Natural Resource Management Ministerial Council, are identified as Class 1, 2 or 5 noxious weeds under the NW Act.

Surveys of the MPE site for noxious weeds was undertaken as part of the Flora and Fauna assessment prepared to support the Concept Plan EA (Hyder Consulting, 2013). The Flora and Fauna assessment identified nine weeds listed under the NW Act for the Liverpool City Council, on land adjacent to the MPE site.

5.2.6 Contaminated Land Management Act 1997

The general objective of the *Contaminated Land Management Act 1997* (CLM Act) is to establish a process for investigating and (where appropriate) remediating land that the Environment Protection Authority (EPA) considers to be contaminated significantly enough to require regulation.

Section 5 of the CLM Act defines 'contamination' of land as meaning: the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.

There are no specific areas requiring direct remediation within the Proposal site. However, various contamination aspects of potential concern could impact on the Proposal site should they not be managed appropriately. Additionally, the Proposal site is considered to be suitable for the desired commercial / industrial land use and there are no specific areas requiring direct remediation prior to operation of the Proposal. The risk to workers and the environment from potential contamination existing once the Proposal is operational is considered to be low.

Refer to Section 13 and Appendix Q of this EIS for further details.

5.3 State Environmental Planning Policies

5.3.1 State Environmental Planning Policy (State and Regional Development) 2011

The aims of the *State Environmental Planning Policy (State and Regional Development) 2011* (State and Regional Development SEPP) are:

- To identify development that is SSD
- To identify development that is State Significant Infrastructure and critical State Significant Infrastructure.
- To confer functions on joint regional planning panels to determine development applications.

Development is declared to be SSD if the development on the land concerned is by the operation of an environmental planning instrument, not permissible without development approval under Part 4 of the EP&A Act and the development is identified in Schedule 1 or 2 of the State and Regional Development SEPP.

The MPE Project is located on land zoned as IN1 General Industrial under the Liverpool LEP. The project is classified as a freight distribution facility and warehouse or distribution centre, both of which are permitted with consent under the Liverpool LEP.

However, clause 12(1) of Schedule 1 of the State and Regional Development SEPP states that development for the purposes of warehouses or distribution centres is considered to be State significant if

'Development has a capital investment value of more than \$50 million for the purpose of warehouse or distribution centres (including container storage facilities) at one location and related to the same operation'.

As the capital investment value of the Proposal is estimated to be around \$454 million AUD (excluding GST), the Proposal would exceed the \$50 million AUD threshold prescribed in clause 12(1) of Schedule 1 of the State and Regional Development SEPP, and would be for the purpose of warehouses or distribution centres, the Proposal is declared to be SSD under the State and Regional Development SEPP.

Under Clause 11 of SEPP(S&RD) development control plans (DCPs), developed under Local Environmental Plans (LEPs), are not applicable to projects declared SSD.

5.3.2 State Environmental Planning Policy (Infrastructure) 2007

The *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) aims to facilitate the effective delivery of infrastructure across NSW. Part 3 Division 15 of ISEPP relates to railway infrastructure and development within rail corridors. In accordance with the provisions of ISEPP, the Proposal would fall under the definition of 'rail freight intermodal facilities' as the warehouses and distribution facilities would be for the purposes of supporting the operation of an IMT.

Clause 81 of the ISEPP permits 'rail freight intermodal facilities' by any person with development consent in 'prescribed zones', including land zoned as IN1 General Industrial and SP2 Infrastructure, within which the Proposal is located.

As noted above, the MPE Project is zoned as IN1 General Industrial and SP2 Infrastructure under the Liverpool LEP. The development within the IN1 and SP2 zones is permitted with development consent under the provisions of the ISEPP.

Clause 104 of ISEPP applies to projects listed in Schedule 3 of the ISEPP, being traffic generating development which is to be referred to the Roads and Maritime Services (Roads and Maritime). Schedule 3 lists 'freight intermodal facilities and freight terminals' of any size or capacity as traffic generating development. Accordingly, Roads and Maritime have been consulted during the preparation of this EIS (refer to Chapter 6). Further an impact of the traffic generation for the Proposal has been provided in Section 7 and Appendix K of this EIS.

5.3.3 State Environmental Planning Policy No.33 – Hazardous and offensive development

State Environmental Planning Policy No. 33- Hazardous and Offensive Development (SEPP 33) links the permissibility of an industrial development proposal to its safety and environmental performance. Certain activities may involve handling, storing or processing a range of materials, which, in the absence of controls, may create risk outside of operational borders to people, property or the environment. Such activities would be defined by SEPP 33 as a 'potentially hazardous industry' or 'potentially offensive industry'. SEPP 33 applies to any industrial development proposals which fall within these definitions.

In accordance with the Concept Plan Conditions of Approval for the MPE Project;

'Any future Development Application shall be accompanied by a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the proposal. Should preliminary screening indicate that the proposal is 'potentially hazardous,' a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP 2011) and Multi-Level Risk Assessment (DoP 2011).'

A hazard and risk impact assessment has been prepared for the Proposal in accordance with the requirements of SEPP 33 and is included in Chapter 18 of this EIS. The preliminary risk screening of the operation of the Proposal (refer to Section 18.4.2) concluded that the Proposal would not meet the definition of 'potentially hazardous' under the provisions of SEPP 33 and a PHA is not required.

5.3.4 State Environmental Planning Policy No. 55 – Remediation of land

The *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) provides controls and guidelines for the remediation of contaminated land. In particular, this policy aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. SEPP 55 imposes obligations on landholders to undertake any remediation work in accordance with relevant guidelines developed under the CLM Act (discussed above) and to notify the relevant Council of certain matters in relation to any remediation work.

SEPP 55 provides for Category 1 and Category 2 remediation. Projects classified as Category 1 require development consent, while projects classified as Category 2 do not require development consent.

A Contamination Summary Report has been prepared for the Proposal, which summarises the investigations undertaken to date in accordance with the CLM Act and identifies the remedial strategy for the Proposal. The MPE site has been certified by a NSW EPA-accredited Site Auditor to be suitable for commercial / industrial use subject to all works being carried out in accordance with The Environmental Management Plan prepared for the site (GHD, 2016). The Contamination Summary Report is summarised in Section 13 and included as Appendix Q to this EIS.

5.3.5 State Environmental Planning Policy No. 64 – Advertising and signage

State Environmental Planning Policy No. 64 - Advertising and Signage (SEPP 64) aims to ensure that signage is compatible with its surroundings, provides effective communication and is of high quality design. Clause 8 of SEPP 64 states that a consent authority must not grant consent to a DA unless it is consistent with the objectives and assessment criteria provided in this SEPP.

The Proposal includes signage which would be visible from a public area, Moorebank Avenue, and therefore is subject to approval under SEPP 64. Overall, the Proposal is considered consistent with the objectives of SEPP 64 (clause 3) in that, the signage would be compatible with the surrounding area, provides suitable communication for wayfinding and would be of high design quality.

An assessment of the Proposal having regard to the assessment criteria provided in this SEPP (Schedule 1) is provided in 5-4.

Table 5-4 SEPP 64 (Schedule 1) assessment

Consideration	Compliance
Character of the area	The surrounding area does not have a desired future character, however the signage included in the Proposal has been designed to integrate into the surrounding area with the assistance of landscaping and also a discrete selection of materials and finishes (refer to Chapter 4 (Project Description) and Chapter 15 (Visual amenity, urban design and landscape) for more information).
Special areas	The signage to be installed as part of the Proposal has been designed to ensure that it would not detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas near the Proposal site.

Consideration	Compliance
Views and vistas	The proposed signage would not impact on any existing views or dominate the skyline in the area. The signage has been designed to integrate into the surrounding area as a result of landscaping and suitable materials and finishes.
Streetscape, setting or landscape	The signage has been designed to create visual interest and be of appropriate scale and design for the Moorebank Avenue streetscape.
Site and building	The signage to be installed as part of the Proposal has been designed to a scale that is reflective and consistent with the proposed buildings and structures to be located on the Proposal site. The signage would not detract from these buildings and/or infrastructure.
Associated devices and logos with advertisements and advertising structures	Way finding signs to be incorporated into the Proposal have been designed to improve access to, from and within the site. This signage has been located in clearly visible areas to improve safety and maximise efficiency.
Illumination	Lighting to be provided would be backlit illuminated. As the lighting would be facing the warehouses themselves, minimal light spill is expected. Some floodlighting would be provided to ensure suitable visibility. Flood lighting would be minimised to reduce light spill and would be visible at the entrance of the Proposal site (i.e. at the Perimeter Road) only.
Safety	Overall, the signage proposed has been designed to improve access to, from and vehicle movements within the Proposal site, thereby improving safety of vehicle and pedestrian movements.

5.3.6 Greater Metropolitan Regional Environmental Plan No.2 – Georges River Catchment

Greater Metropolitan Regional Environmental Plan No 2 – Georges River Catchment (REP 2) (now a deemed SEPP) aims to maintain and improve the water quality and river flows of the Georges River and its catchment, and to establish a consistent and coordinated approach to environmental planning and assessment for land along the Georges River and its tributaries.

This EIS considers the relevant matters of REP 2 to the Proposal. The relevant planning controls, matters for consideration and where they are addressed within this EIS are provided in Table 5-5.

Table 5-5 REP 2 Matters for Consideration

Matters for Consideration	Where Addressed
Section 11(9) Industry	
The potential cumulative environmental impact of any industrial uses on water quality within the Catchment.	Chapter 12 (Stormwater and flooding) and Appendix P of this EIS.
The adequacy of proposed stormwater controls and whether the proposal meets the Council's requirements for stormwater management.	Chapter 12 (Stormwater and flooding) and Appendix P of this EIS.
Whether proposed erosion control measures meet the criteria set out in Managing Urban Stormwater: Soil and Construction Handbook (1998) prepared by and available from Landcom and the Department of Housing.	Chapter 12 (Stormwater and flooding), Chapter 13 (Geology, soils and contamination) and Appendix P and Q of this EIS.
Likely impact on groundwater and remnant vegetation.	Chapters 11 (Biodiversity), 12 (stormwater and Flooding), 13 (Geology, soils and contamination), and Appendices O, P and Q of this EIS.
The possibility of reusing treated waste water on land and the adequacy of proposed waste water disposal options.	Chapter 12 (stormwater and Flooding), Section 19.1 (Waste) and Appendices F and P of this EIS.
Whether adequate provision has been made to incorporate vegetated buffer areas to protect watercourses, foreshores or other environmentally sensitive areas where new development is proposed.	Chapter 11 (Biodiversity) and Appendix O of this EIS.
The adequacy of planned waste water disposal options.	Section 19.1 (Waste), Appendix F and P of this EIS.
Section 11(20) Stormwater Management System or Works	
That untreated stormwater is not disposed of into the Georges River or its tributaries.	Section 19.1 (Waste), Appendix F and P of this EIS.
The likely impact of stormwater disposal on the quality of any receiving waters.	Chapter 11 (Biodiversity), Chapter 12 (Stormwater and Flooding), Appendix O and P of this EIS.
That the levels of nutrients and sediments entering the waterway are not increased by the proposed development.	Chapter 12 (Stormwater and flooding) and Appendix P of this EIS.
Whether any proposals to manage stormwater are in accordance with the local council's stormwater management plans and the Managing Urban Stormwater series of documents and meet the local council's stormwater management objectives.	Chapter 12 (Stormwater and flooding) and Appendix P of this EIS.

Matters for Consideration	Where Addressed
<p>Whether the principles outlined in the <i>Managing Urban Stormwater Soils and Construction Handbook</i> (1998) prepared by and available from Landcom and the Department of Housing are followed during each stage of a development (including subdivision).</p>	<p>Chapter 12 (Stormwater and Flooding), Chapter 13 (Geology, Soils and Contamination) and Appendix P and Q of this EIS.</p>
<p>Whether the proposal satisfies the local council's sediment control plan or, if no such plan has been prepared, any erosion and sediment policies adopted by the local council.</p>	<p>Chapter 12 (Stormwater and Flooding), Chapter 13 (Geology, Soils and Contamination) and Appendix P and Q of this EIS.</p>
<p>Section 11(21) Development in Vegetated Buffer Areas</p>	
<p>Bushfire hazard reduction measures are not to be confined to the vegetated buffer area.</p>	<p>Section 19.2 (Bushfire) and Appendix U of this EIS</p>
<p>The requirements of the document entitled <i>Planning for Bush Fire Protection</i>, ISBN 0 9751033 2 6, prepared by the NSW Rural Fire Service in co-operation with the Department of Planning, dated December 2006.</p>	<p>Section 19.2 (Bushfire) and Appendix U of this EIS</p>
<p>The requirements of the NSW <i>State Rivers and Estuaries Policy</i> prepared by and available from the Department of Land and Water Conservation and the NSW <i>Wetlands Management Policy</i> prepared by and available from that Department where the development proposals are likely to impact on the quality of water and river flows of the Georges River or its tributaries.</p>	<p>Chapter 12 (Stormwater and Flooding) and Appendix P of this EIS.</p>
<p>The need to filter runoff from developed areas to improve water quality within the Georges River and its tributaries.</p>	<p>Chapter 12 (Stormwater and Flooding) and Appendix P of this EIS.</p>
<p>The need to reduce the loss of riparian vegetation and to remove invasive weed species.</p>	<p>Chapter 11 (Biodiversity) and Appendix O of this EIS.</p>
<p>The need to minimise damage to river banks and channels so as to reduce bank erosion.</p>	<p>Chapters 11 (Biodiversity), 12 (Stormwater and Flooding) and 13 (Geology, Soils and Contamination) and Appendices O, P and Q of this EIS.</p>
<p>The need to increase or maintain terrestrial and aquatic biological diversity and to provide fauna habitat and corridors.</p>	<p>Chapter 11 (Biodiversity) and Appendix O of this EIS.</p>

5.4 Local Environmental Plan and Development Control Plan

5.4.1 Liverpool Local Environmental Plan 2008

The Proposal is located on land within the Liverpool LGA, which is subject to the provision of the *Liverpool Local Environment Plan 2008* (Liverpool LEP). However, as the Proposal is SSD the Liverpool LEP does not apply. However, for completeness, this EIS has considered the relevant provisions of the Liverpool LEP.

The aims of the Liverpool LEP are:

- to encourage a range of housing, employment, recreation and services to meet the needs of existing and future residents of Liverpool,
- to foster economic, environmental and social well-being so that Liverpool continues to develop as a sustainable and prosperous place to live, work and visit,
- to provide community and recreation facilities, maintain suitable amenity and offer a variety of quality lifestyle opportunities to a diverse population,
- to strengthen the regional position of the Liverpool city centre as the service and employment centre for Sydney's south west region,
- to concentrate intensive land uses and trip-generating activities in locations most accessible to transport and centres,
- to promote the efficient and equitable provision of public services, infrastructure and amenities,
- to conserve, protect and enhance the environmental and cultural heritage of Liverpool,
- to protect and enhance the natural environment in Liverpool, incorporating ecologically sustainable development,
- to minimise risk to the community in areas subject to environmental hazards, particularly flooding and bush fires,
- to promote a high standard of urban design that responds appropriately to the existing or desired future character of areas.

An LEP compliance summary table is provided in Table 5-6. Further detail on the relevant provisions are also considered below.

Table 5-6 Compliance table for LEP controls relevant to the Proposal

LEP clause	Development standard	Proposal	Complies
Zoning (Land Use Table)	The Proposal site is located in the following zones: <ul style="list-style-type: none"> • IN1 General Industrial • SP2 Infrastructure 	The Proposal is considered permissible with development consent in relation to works within the relevant Liverpool LEP zones.	Yes
Height of buildings (Clause 4.3)	Maximum building height limit of 15 m for the Proposal site.	The MPE Concept Plan Approval Conditions of Approval for the MPE site include a provision that building footprints/setbacks and building/structure heights are to be generally consistent	No – However, the building heights for the Proposal are consistent

LEP clause	Development standard	Proposal	Complies
		<p>with the <i>Urban Design and Landscape Report</i> (Reid Campbell, 2013).</p> <p>The building heights for the Proposal, as detailed in Section 4.2 of this EIS are consistent with the Conditions of Approval for the MPE Concept Plan Approval.</p>	<p>with the Conditions of Approval for the MPE Concept Plan Approval.</p>
<p>Subdivision and Lot Size (Clause 4.1)</p>	<p>Minimum subdivision lot size for the Proposal site is 2,000 m²</p>	<p>The Proposal site would be subdivided into six lots, ranging from between 18,200 m² and 207,800 m². As the lot sizes are greater than the minimum subdivision lot size prescribed in the Liverpool LEP, the Proposal is consistent with Clause 4.1 of the Liverpool LEP.</p>	<p>Yes</p>
<p>Preservation of Trees or Vegetation (Clause 5.9)</p>	<p>The Liverpool LEP aims to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation. Development consent is required for native vegetation clearing.</p>	<p>The Proposal seeks development consent for the removal of native vegetation. A comprehensive biodiversity assessment and a Landscape Design Statement and Landscape Plans have been undertaken to address these impacts (refer to Appendix E and O of this EIS).</p>	<p>Yes</p>
<p>Heritage Conservation (Clause 5.10)</p>	<p>The Liverpool LEP outlines heritage conservation areas and requirements for consent with regards to impacting on heritage items.</p>	<p>A non-Indigenous heritage assessment has been prepared for the Proposal to assess the impact of the Proposal on the heritage values of the MPE site (refer to Section 17 and Appendix T of this EIS).</p>	<p>Yes</p>
<p>Environmentally Significant Land (Clause 7.6)</p>	<p>The Liverpool LEP outlines objectives and considerations with regard to the identification, maintenance and protection of environmentally significant land.</p>	<p>A comprehensive biodiversity assessment has been undertaken to determine the potential impacts associated with tree removal arising from the Proposal. The outcomes of this assessment are discussed in Section 11 and Appendix O of this EIS.</p>	<p>Yes</p>

LEP clause	Development standard	Proposal	Complies
Acid Sulfate Soils (Clause 7.7)	The Liverpool LEP aims to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage. Development consent is required for works to be undertaken on land shown on the Acid Sulfate Soils Map as being of the class specified for those works.	The Proposal does not require works on land mapped as containing Acid Sulfate soils.	Yes
Flood Planning (Clause 7.8)	The Liverpool LEP requires development consent to be obtained for earthworks, the erection of a building, the carrying out of a work and/or flood mitigation works in a flood planning area.	The southern portion of the Proposal site is identified in the Liverpool LEP as being flood prone land. A comprehensive assessment of flooding issues is included within Section 12 and Appendix P of this EIS.	Yes
Foreshore Building Line (Clause 7.9)	Clause 7.9 of the Liverpool LEP identifies a foreshore building line parallel with the Georges River.	The Proposal is located outside of the foreshore building line.	Yes
Moorebank South Industrial Precinct (Clause 7.27)	The Proposal site is mapped under the Liverpool LEP as part of the Moorebank South Industrial Precinct.	Objectives to be considered in accordance with Clause 7.27 are addressed within relevant Sections of this EIS (refer to Table 5-9 of this EIS for Section references). The Proposal is considered to be consistent with this development standard.	Yes

Zoning and permissibility

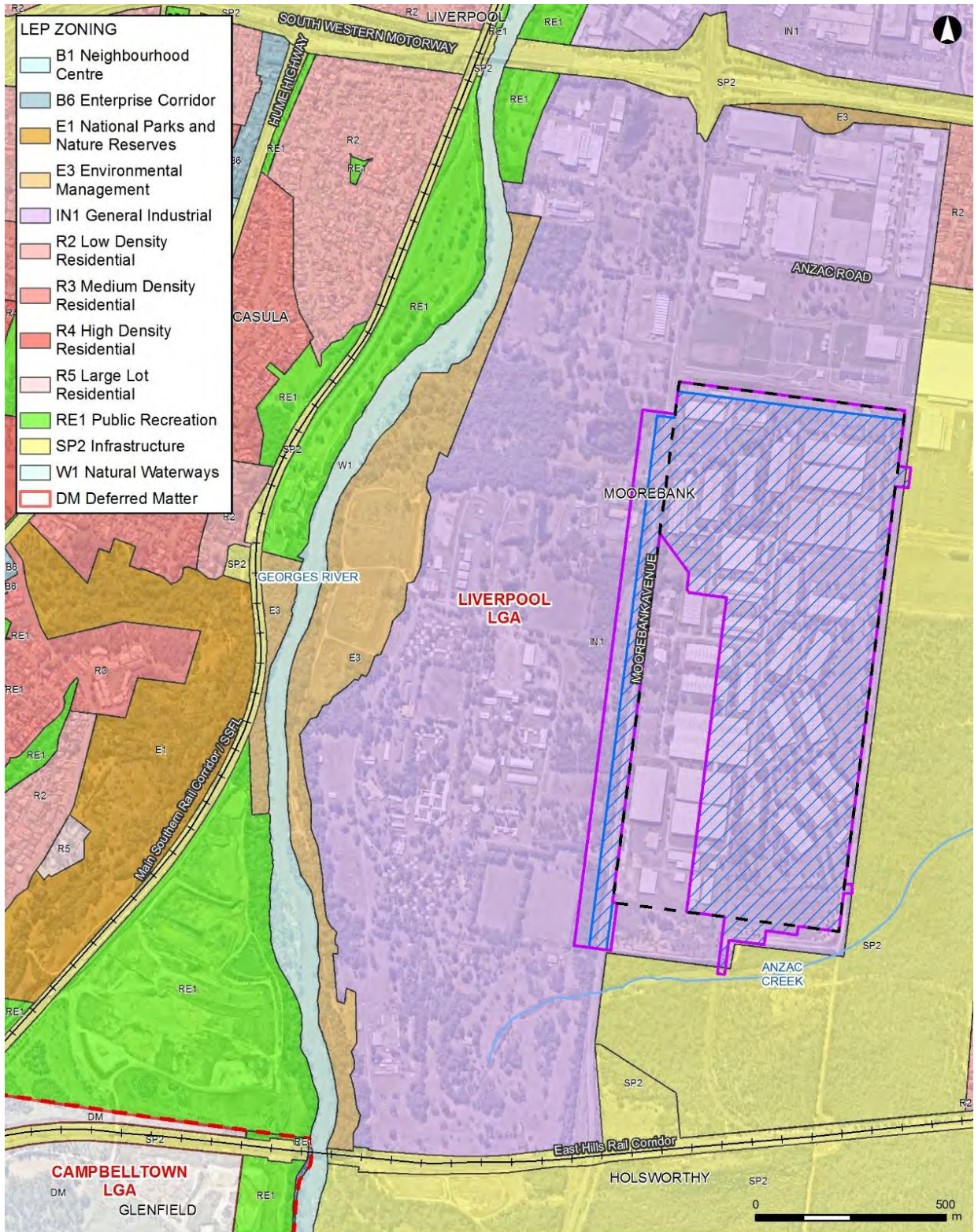
The Proposal site is located within a number of zones under the Liverpool LEP as shown in Table 5-7 and Figure 5-1. The zoning objectives and permissibility of the Proposal for each of the relevant zones is also provided in Table 5-7.

Table 5-7 Zoning and objectives under the Liverpool LEP

Zoning	Objectives	Permissibility
IN1 General Industrial	<ul style="list-style-type: none"> ▪ To provide a wide range of industrial and warehouse land uses. ▪ To encourage employment opportunities. ▪ To minimise any adverse effect of industry on other land uses. ▪ To support and protect industrial land for industrial uses. ▪ To particularly encourage research and development industries by prohibiting land uses that are typically unsightly or unpleasant. ▪ To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. 	The project is classified as a freight distribution facility and warehouse or distribution centre, both of which are permitted with consent under the Liverpool LEP on land zoned as IN1
SP2 Infrastructure (Defence)	<ul style="list-style-type: none"> ▪ To provide for infrastructure and related uses. ▪ To prevent development that is not compatible with or that may detract from the provision of infrastructure. ▪ To reserve land for the provision of infrastructure. 	A small portion of the Proposal footprint required for drainage infrastructure is located on land zoned as SP2, as shown in Figure 5-1. The proposed works within this zone are prohibited. However, as detailed in Section 5.3.2, Clause 81 of the ISEPP permits 'rail freight intermodal facilities' by any person with development consent in 'prescribed zones', including land zoned as SP2 Infrastructure. Therefore, that part of the Proposal within the SP2 zone is permitted with development consent under the provisions of the ISEPP.

As identified above, the Proposal is considered permissible with development consent in relation to works within the relevant Liverpool LEP zones. The MPE Concept Plan Approval states that future approvals are to be sought under Part 4, Division 4.1 of the EP&A Act and under the State and Regional Development SEPP, the Proposal is declared to be an SSD and is therefore subject to assessment and determination by the Minister for Planning and Environment or his delegate.

Notwithstanding this, the EIS has considered the objectives of the IN1 General Industrial and SP2 Infrastructure land use zones of the Liverpool LEP in its assessment of the Proposal.



LEGEND

- MPE site
- LGA boundary
- MPE Stage 2 construction area
- MPE Stage 2 operational area
- Existing railway
- Watercourse

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Figure 5-1 Land use zoning of the Proposal and surrounds

Height of buildings

The Proposal site included within the IN1 General Industrial zoning is identified, under Clause 4.3 of the Liverpool LEP, as having a maximum building height of 15 metres. However, the MPE Concept Plan Approval Conditions of Approval for the MPE site include a provision that building footprints/setbacks and building/structure heights are to be generally consistent with the *Urban Design and Landscape Report* (Reid Campbell, 2012).

The building heights permitted under the MPE Concept Plan Approval include allowances for the following:

- Maximum height of materials handling equipment of 32 m
- Maximum control tower height of 30 m
- Maximum building height of 21 m for all warehouses
- Maximum building height of 15 m for all other buildings.

The building heights for the Proposal, as detailed in Section 4.2 of this EIS are consistent with the Conditions of Approval for the MPE Concept Plan Approval. A comprehensive Visual Impact Assessment has been prepared by Reid Campbell (refer to Appendix R), which assesses the appropriateness of the Proposal, including the potential impacts arising from the proposed building and equipment heights. This analysis is discussed in Chapter 15 and Appendix R of this EIS.

Preservation of Trees or Vegetation

Section 5.9 of the Liverpool LEP aims to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation. A comprehensive biodiversity assessment has been undertaken to determine the potential impacts associated with tree removal arising from the Proposal. The outcomes of this assessment are discussed in Chapter 11 (Biodiversity) and Appendix O.

The location of proposed revegetation for the Proposal is shown in the Landscape Design Statement and Landscape Plans which have been prepared to support this EIS and are included in Appendix E of this EIS.

Subdivision and lot size

Under Section 4.1 of the Liverpool LEP, the minimum subdivision lot size of the Proposal site is 2,000 m². As part of the Proposal, the Proposal site would be subdivided into five lots, ranging from between 18,200 m² and 207,800 m², as detailed in Table 5-6. The proposed subdivision plan is provided in Appendix I. As the lot sizes are greater than the minimum subdivision lot size prescribed in the Liverpool LEP, the Proposal is consistent with Clause 4.1 of the Liverpool LEP.

Table 5-8 Subdivision lot sizes of the Proposal site

Lot	DP	Area (m ²)
20	1197707	18,200
21	1197707	113,800
22	1197707	188,400
23	1197707	207,800
24	1197707	108,500

Heritage Conservation

The provisions of the Liverpool LEP state that a heritage impact assessment is to be undertaken where a development is proposed within close proximity of a heritage item.

LCC lodged an amendment to the Liverpool LEP (Amendment No 37) in January 2014 to add the MPE site to the Liverpool LEP Heritage Schedule. In September 2015, the former DSND Site (Lot 1, DP 1048263), land which forms part of this Proposal was listed in Schedule 5 (Environmental heritage) of the Liverpool LEP.

A non-Indigenous heritage assessment has been prepared for the Proposal to assess the impact of the Proposal on the heritage values of the MPE site. A heritage assessment has been prepared for the Proposal to assess the impact of the Proposal on the heritage values of the MPE site. The non-Indigenous heritage assessment is discussed in Chapter 17 and provided in full in Appendix T of this EIS.

Flood planning

Under Section 7.8 of the Liverpool LEP development consent is required for earthworks, the erection of a building, the carrying out of a work and/or flood mitigation works (other than those carried out by a public authority) in a flood planning area. Development consent will not be granted unless it has been satisfactorily demonstrated that the development will meet the criteria listed within the Liverpool LEP. The southern portion of the Proposal site is identified in the Liverpool LEP as being flood prone land. A comprehensive assessment of the impacts of the Proposal on flooding behaviour during construction and operation has been undertaken. This is described in Chapter 12 (Stormwater and Flooding) of this EIS and provided in full in Appendix P.

Development of Certain Land at Moorebank – The Moorebank South Industrial Precinct

The Proposal is located in land designated by the Liverpool LEP as part of the Moorebank South Industrial Precinct. The objective of section 7.27 of the Liverpool LEP is to ensure development is supportive of the future provision of appropriate regional public transport measures to reduce the demand for travel by private car and commercial vehicles and applies to land identified as part of the Moorebank South Industrial Precinct.

In accordance with clause 3 of Section 7.27 of the Liverpool LEP, before granting development consent to development within the Moorebank South Industrial Precinct, the consent authority (in this case the Minister for Planning and Environment) must be satisfied that the proposed development is consistent with a number of objectives, where they are relevant.

Table 5-7 below summarises where the relevant objectives of clause 3 of Section 7.27 of the Liverpool LEP have been considered throughout the environmental assessment of the Proposal.

Table 5-9 Consideration of relevant objectives under clause 3 of section 7.27 of the Liverpool LEP

Matter for consideration	Where addressed
(a) to provide a street pattern that enables direct public transport links between the M5 Motorway Moorebank Avenue interchange, the East Hills rail line at the Moorebank Avenue bridge and Anzac Road, Wattle Grove	Chapter 7 (Traffic and transport) and Appendix K of this EIS.
(b) to provide a subdivision pattern that enables ready access through the precinct by pedestrians and cyclists	Chapter 7 (Traffic and transport) and Appendix K of this EIS.
(c) to orientate entrances, windows and other active frontages toward the street or paths to contribute toward creating a safer pedestrian environment	Section 19.3 (Property and infrastructure) and Appendix D of this EIS.
(d) to provide facilities that encourage walking and cycling between the development and existing or potential public transport.	Chapter 7 (Traffic and transport), Appendix D, E and Appendix K of this EIS.

5.4.2 Liverpool Development Control Plan 2008

The Liverpool Development Control Plan 2008 (the Liverpool DCP) provides the more detailed development controls that generally apply to the Liverpool LGA. The following parts of the Liverpool DCP are considered relevant to the Proposal:

- Part 1 – General controls for all development
- Part 2.4 – Moorebank Defence Lands (within which the Proposal is located)
- Part 7 – Development in industrial zones (within which the Proposal is located).

Clause 11 of the State and Regional Development SEPP states that:

‘Development control plans (whether made before or after the commencement of this Policy) do not apply to:

- a) *State significant development, or*
- b) *Development for which a relevant council is the consent authority under section 89D(2) of the Act.’*

As the Proposal is declared SSD (refer to Section 5.2.1 for more information), the provisions of the Liverpool DCP do not apply to the Proposal. Notwithstanding, an assessment of the consistency of the Proposal with the provisions of the relevant parts of the Liverpool DCP has been undertaken and is provided in Appendix A]. The Proposal is considered generally compliant with the requirements of the applicable DCP parts as the Proposal would:

- Contribute to the delivery and operation of an IMT facility within Moorebank Precinct East, which would act as a keystone for attracting industrial and business development to the Moorebank Defence Lands and land zoned for industrial use within the Liverpool LGA
- Attract land uses which would complement, and not compete with, the employment role of the Liverpool CBD
- Contribute to the provision of a concentrated freight and logistics employment hub, which would provide key employment opportunities for the surrounding residential community, and accordingly promote close to home work opportunities
- Where possible, include travel demand measures to promote employee use of public transport and alternative travel modes such as bicycle or walking.

- Locate uses across the Proposal site in a manner that responds to the needs of surrounding land uses and accommodates mitigation measures such as landscaping, water sensitive urban design (WSUD) and flood mitigation, as and where appropriate.
- Provide high quality landscaping that establishes an attractive streetscape character, provides consistency with surrounding biodiversity values and reduces the visual impact of industrial buildings and car parking areas.
- Commit to employing and incorporating the principles of Ecologically Sustainable Development (ESD) into the design and development of the MPE site (refer to Section 19.4 for more information relating to ESD)

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6 CONSULTATION

Ongoing consultation by SIMTA and their project team (on behalf of SIMTA) has been undertaken throughout the preparation of this EIS with government agencies, key stakeholders and the community. Where relevant, this consultation has built on the consultation that has been previously undertaken as part of the development of the MPE Concept Plan, and as part of the MPE Stage 1 Project. The consultation undertaken as part of previous stages of the MPE project, and consultation undertaken recently as part of the preparation of this EIS has been a key consideration for the design, construction and operation of the Proposal.

A *Community and Stakeholder Consultation Outcomes Report* has been prepared by Elton Consulting, included at Appendix J of this EIS, to highlight previous (Concept Plan Approval and MPE Stage 1 Project) and recent consultation (as part of the Proposal) undertaken with the community. This reporting has been supplemented by other specific consultation activities undertaken during the preparation of this EIS.

The *Community and Stakeholder Consultation Outcomes Report*, and this Section of the EIS have been prepared to address the SEARs issued for the Proposal; providing a summary of the relevant SEARs, relating to consultation, and where these have been addressed in this EIS.

Table 6-1 SEARS (Consultation)

Section/ Number	Environmental Assessment Requirement	Where addressed in this EIS
Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners.</p> <p>In particular you must consult with:</p> <ul style="list-style-type: none"> • Local, State or Commonwealth government authorities, including the: <ul style="list-style-type: none"> – Commonwealth Department of the Environment; – Environment Protection Authority; – Office of Environment and Heritage; – Transport for NSW; – Department of Primary Industries (Fisheries & Water); – NSW Rural Fire Service; – NSW Health; – Sydney Ports Corporation; – Liverpool City Council; and – Campbelltown City Council. 	Section 6.4 of this EIS

Section/ Number	Environmental Assessment Requirement	Where addressed in this EIS
	<ul style="list-style-type: none"> • Service and infrastructure providers: <ul style="list-style-type: none"> – Roads and Maritime Services; – Sydney Water Corporation; – Endeavour Energy; – Jemena; – Telstra; and – AGL Upstream Investments Pty Ltd. 	Section 6.4 of this EIS
	<ul style="list-style-type: none"> • Specialist interest groups, including Local Aboriginal Land Councils; and 	Section 6.4 of this EIS
	<ul style="list-style-type: none"> • The public, including community groups and adjoining and affected landowners. 	Section 6.4 and 6.4 of this EIS
	<p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	Section 6.5 of this EIS

6.1 Background

6.1.1 Community consultation objectives

The *Community and Stakeholder Consultation Outcomes Report* provides a summary of the consultation objectives that have been implemented as part of the Proposal to engage with stakeholders and raise awareness of the Proposal (refer to Appendix J of this EIS).

The community consultation objectives for the Proposal, and for the MPE Concept Plan Approval, aim to provide opportunities for involvement of the local community throughout each stage of the Proposal and include:

- Identify key community stakeholders with an interest in the Proposal
- Provide accurate and relevant information about the Proposal to local residents and community stakeholders to create awareness about the Proposal
- Provide a means by which stakeholders could comment on the proposed plans prior to their finalisation
- Provide the Project team with the opportunity to incorporate stakeholder feedback into the planning and development process.

6.1.2 Guiding principles

The objectives listed above are also underpinned by guiding principles which have been adopted for the Concept Plan Approval, MPE Stage 1 and the Proposal for consultation with government agencies, key stakeholders and the community. These include:

- The project team is a 'guest' within the community – SIMTA's project team acknowledges they are a guest within the community for the duration of the project – and will respect local residents, businesses and other stakeholders during this time
- Aim for 'no surprises' – A 'no surprises' approach during the planning process requires close community and stakeholder interaction to be maintained. This will build trust within the community
- Delivering on promises – SIMTA, as the Proponent for the MPE Project, will deliver on its promises and, importantly, be seen to be delivering. This is crucial to building and maintaining stakeholder trust in the context of this proposal
- Understanding diverse stakeholder interests and values – SIMTA is committed to identifying and understanding the range of stakeholder issues, values and concerns related to the project
- Quality, timely information to all affected stakeholders – SIMTA will provide relevant, up-to-date and accessible information to all affected stakeholders at planning milestones
- Develop effective, two-way communication with the community – SIMTA aims to create robust, constructive and respectful communication with community members affected by the proposal. SIMTA will provide opportunities for the community to have their feedback considered and their concerns addressed throughout the planning process.

6.1.3 Overview of previous consultation

As discussed above, SIMTA have undertaken consultation progressively throughout the preparation of the MPE Concept Approval, the EPBC Approval and the MPE Stage 1 Project environmental assessment. A summary of the key consultation activities that have been carried out as part of the previous stages of the MPE Project are outlined below. These are also discussed in more detail in Section 6.2 and 6.3 below.

Concept Plan Approval

- Lodgement of the MPE Concept Plan Preliminary Environmental Assessment (PEA) in 2010
- Preparation period for the Concept Plan Environmental Assessment (EA) in 2011
- Public display of the EA between 28 March 2012 and 28 May 2012
- Amendment of the Concept Plan Environmental Assessment (EA) in 2012 and 2013
- Public display of the amended EA between 4 September and 21 October 2013
- PAC Hearing on 31 July 2014 at the Wattle Grove Community Centre

EPBC Approval

- Public display of the draft Environmental Impact Statement (EIS) between 9 June 2013 and 13 August 2013, and the final EIS between October 2013 to 5 December 2013.

MPE Stage 1 Project (SSD 6766)

- Lodgement of the MPE Stage 1 Project PEA in October 2014
- Preparation period for the MPE Stage 1 EIS in late 2014 to May 2015
- Public display of the MPE Stage 1 EIS between 28 May 2016 and 26 June 2016
- Government agency consultation between July and September 2015 (post EIS public display)
- PAC Hearing on 1 February 2016 and 2 February 2016 at the Bankstown Golf Club

6.2 Summary of MPE Concept Plan consultation

A range of consultation activities were undertaken to inform, engage and interact with the local community and stakeholders during the preparation of the Concept Plan EA. The level of consultation undertaken was reflective of the level of interest and concern shown by the stakeholders relating to the MPE Project and its potential impacts.

6.2.1 Consultation activities

Consultation activities undertaken for the Concept Plan EA provided information to relevant Commonwealth and State Government agencies, service and infrastructure providers, the community and local interest groups and allowed the opportunity for interested stakeholders and community members to provide feedback on the MPE Concept Plan. A summary of consultation activities that were undertaken during the preparation of the MPE Concept Plan is provided below.

Government agency consultation

A number of government agencies were consulted with during the preparation and assessment of the MPE Concept Plan, including:

- Commonwealth Department of Sustainability, Environment, Water, Population and Communities (now Department of Environment and Energy - DoEE)
- Commonwealth Department of Finance and Deregulation (now Department of Finance)
- NSW Department of Planning and Infrastructure (now NSW DP&E)
- NSW Office of Environment and Heritage (OEH)
- NSW Rural Fire Service
- NSW Industry and Investment
- Sydney Ports Corporation
- Liverpool City Council
- Campbelltown City Council

The abovementioned government agencies were consulted with in the form of, but not limited to, meetings (including visits to the MPE site), telephone conversations and email and letter correspondence. A Planning Focus Meeting at the MPE Project site was undertaken during the preparation of the Concept Plan EA in December 2010, with the majority of the abovementioned Government agencies in attendance.

Services and infrastructure providers

The following services and infrastructure providers were consulted with during the preparation of the Concept Plan EA to identify existing capacity and scope for augmentation of existing networks and infrastructures to support the operation of the MPE Project:

- NSW Roads and Traffic Authority (now NSW Roads and Maritime Services (RMS))
- Transport NSW (now Transport for NSW (TfNSW))
- RailCorp (now Sydney Trains)
- Australian Rail Track Corporation (ARTC)
- Sydney Water Corporation
- Integral Energy (now Endeavour Energy)
- Jemena
- Telstra
- AGL Upstream Investments Pty Ltd.

The community and other stakeholders

Consultation activities to inform and engage the community began during the preparation of the Concept Plan EA as an ongoing process. Consultation with the local community has included the implementation of a combination of ongoing communications and community consultation mediums, as well as targeted consultation and engagement activities. These activities have included:

- Establishment of, and ongoing updates to, the MPE Project website (<http://simta.com.au>), providing information relating to the progress of the MPE Project, details relating to the environmental assessment and information for further consultation
- Establishment of a Project information line to enable all stakeholders to provide feedback and ask questions
- Provision of community newsletters sent to residential households within suburbs near the Proposal, including Casula, Wattle Grove, Holsworthy and Glenfield
- Community information sessions to allow the dissemination of information relating to the MPE Project, as well as to provide the community with the opportunity to ask questions, discuss any issues with members of the technical team
- Private stakeholder meetings with local community members to address particular concerns raised relating to the MPE Project

Opportunities for consultation with other stakeholders was also provided via the abovementioned consultation activities. Other stakeholders include community groups, nearby landowners and business owners.

6.2.2 Key issues raised during consultation

Consultation throughout the MPE Concept Approval was undertaken progressively to enable effective community and stakeholder engagement at various stages along the Project's timeline.

A summary of the key community issues identified during the public exhibition phase of the MPE Concept EIS, and the Response to Submissions report is provided below in Table 6-2.

Submissions were individually reviewed and categorised according to their key issue and sub-issue. Issues raised by the community as part of this consultation during the preparation of the Concept Plan EA included:

- Traffic, transport and access
- Local and regional Air Quality
- Human health risks and impacts
- Light Spill
- Noise
- Location and Operation of the IMT Facility
- Consultation Process
- Heritage Impacts

Table 6-2 Summary of key community issues and responses for the MPE Concept Approval

Issues raised during community consultation	Response to issue raised
Traffic and Transport	
Traffic on Nuwarra and Heathcote Roads	The Transport and Accessibility Impact Assessment (TAIA) provided for the Concept Plan EA assessed the impact of the MPE Project on Nuwarra Road and Heathcote Road. The TAIA stated that any impacts to Nuwarra Road and Heathcote Road would be minor and occur regardless of whether the Project is undertaken.
Traffic on Anzac Road	Heavy vehicles are restricted to certain roads under NSW legislation and trucks accessing the MPE site would be bound to follow this legislation. Anzac Road is a restricted road and therefore heavy vehicles would not be permitted to access the MPE site via Anzac Road.
Heavy vehicle use on the local roads	Heavy vehicles are restricted to certain roads under NSW legislation and trucks accessing the MPE site would be bound to follow this legislation.
Road network improvements	The TAIA provided for the Concept Plan EA highlights road network improvements required to support the MPE Project and the relevant agencies and authorities that would be consulted with regarding these upgrades.
Prevention of accidents on the M5 Motorway	The TAIA for the Concept Plan EA stated that the MPE Project would not substantially increase the likelihood of crashes/ accidents in the longer term.

Issues raised during community consultation	Response to issue raised
Heavy vehicles on the M5 Motorway	As indicated in the TAIA for the Concept Plan EA, the MPE Project would assist in reducing the overall amount of heavy vehicle traffic on Sydney's roads, particularly on the M5 Motorway between Port Botany and Moorebank Avenue. The MPE Project would add a minor increase (between 2% and 3% of total traffic) to the major nearby intersections.
Upgrade to Moorebank Avenue	Upgrades to Moorebank Avenue would occur as part of the MPE Project to ensure an acceptable level of service is maintained.
Moorebank Avenue/Anzac Road intersection	Heavy vehicles are not permitted on Anzac Road and the upgrade of Moorebank Avenue, proposed in the MPE Project, would not impact on the performance of this intersection.
Truck arrival scheduling	Freight would be transported from Port Botany to the MPE site by rail. The operation of the MPE Project would therefore not be impacted by delays on the M5 between Port Botany and Moorebank Avenue.
Risk of accidents/spillage	The TAIA prepared for the Concept Plan EA stated that the MPE Project would not substantially increase the likelihood of crashes/ accidents in the longer term. A Hazards and Risk Assessment Report was prepared for the MPE Project and details Australian Standards that would be implemented to minimise the risk of mishandling containers.
Capacity and demand	A maximum capacity of 1 million TEU has been applied to the catchment area and any impacts would essentially be the same, whether or not another IMT was developed ¹ .
Air Quality	
Air quality	An Air Quality Impact Assessment was prepared for the Concept Plan EA, and addressed any potential impacts to local air quality as a result of the MPE Project.
Cumulative effects on air quality, noise and traffic from two adjacent IMT sites.	A Freight Demand Modelling Report was prepared to clarify SIMTA's position with regard to the total freight catchment demand that would be shared between the two proposed IMTs (the MPE and MPW Projects). Specialist assessments for the Concept Plan EA relating to air quality, noise and vibration and traffic were undertaken, which included an assessment of the potential cumulative impacts of combined operations of the MPE and MPW Projects.
Health effects of changes to air quality	A Screening Level Health Risk Assessment was prepared for the Concept Plan EA, which indicated that no health impacts are expected at nearby sensitive receivers as a result of the MPE Project. Notwithstanding, a number of mitigation measures were identified in the Concept Plan EA to minimise impacts of the MPE Project on air quality.
Air quality modelling	Air quality modelling was undertaken for the construction and operation of the MPE Project in the Air Quality Impact Assessment included in the Concept Plan EA, which concluded that there would be overall fewer emissions of pollutants due to the fact that the Proposal would result in a reduction of freight transport by truck.

¹ Although the Concept Plan EA assessed a throughput of 1 million TEU, approval was granted by NSW DP&E for up to 500,000 TEU only.

Issues raised during community consultation	Response to issue raised
Other environmental impacts	
Noise impacts	The Noise and Vibration Impact Assessment prepared for the Concept Plan EA found that at full capacity operations (ie 1 million TEU), with the appropriate noise mitigation measures applied, the IMT is predicted to comply with all relevant noise and vibration criteria during both the daytime and night time periods of operation.
Lighting	A visual impact assessment identified that light spill from the MPE Project would be contained to within 150 m of the immediate vicinity of the MPE site and will not impact upon nearby residents, located at least 400 m away from the operational footprint of the MPE site.
Flooding of Georges River	A Flood Study and Stormwater Management Report was prepared for the MPE Project which indicated that the MPE site would only be impacted by flooding during the 100-year average recurrence interval (ARI) flood event. Mitigation measures are stated in the report to reduce potential stormwater and flooding impacts during a storm event.
Employment opportunities	
Request regarding employment opportunities	It is anticipated that the Proposal would generate approximately 300 temporary jobs per year for 18 months during the construction period, and 40 jobs per year during operation. Where possible jobs would be filled locally. (Employment opportunities generated by the MPE Stage 2 Proposal are discussed in Section 19.5.4)
Planning Process	
Difference between the Environmental Impact Statement and the Environmental Assessment for SIMTA	In 2013, two separate public consultation processes for the MPE Project were undertaken, for the MPE EPBC Approval and the Concept Plan Approval. An EIS was prepared for the EPBC Approval in accordance with the EPBC Act and an EA was prepared for the Concept Plan Approval under Part 3A of the EP&A Act.
Details on the differences between the Moorebank Intermodal Company and SIMTA Project.	<p>The best place for information explaining each of the projects is provided online . The link to the Federal Government Moorebank Intermodal Company website is: http://www.finance.gov.au/property/property/moorebank-intermodal-freightterminal/index.html and the link to the SIMTA website is: simta.com.au</p> <p>The Concept Plan EA is located on NSW DP&E's major projects website (http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4400)</p>
Why was the concept plan exhibited again in 2013?	The Concept Plan, EA and supporting technical studies was updated as part of the NSW environmental planning and assessment process. The Proposal was updated to reflect the land on which the Rail link is proposed which includes land owned by RailCorp and private landowners.

Issues raised during community consultation	Response to issue raised
General	
Where will the Rail link be located?	The proposed Rail link would traverse under Moorebank Avenue, as the existing East Hills Rail Line does currently. The MPE Project would not use the existing East Hills passenger Rail Line and is proposed to be located on land within the Southern Sydney Freight Line (SSFL) corridor, existing RailCorp land adjacent to the East Hills Passenger Line, and private land which forms part of the Glenfield Waste Facility.
Real estate values	The EIS document sets out management and mitigation measures to preclude the Proposal from having a significant socio-economic and visual amenity impact on the nearby residential areas.
Consideration of Casula and Wattle Grove, as well as Moorebank	The residents of Wattle Grove, Casula and Moorebank have been considered in the specialist impact assessment reports.
Security	The MPE Project includes security facilities within the freight village, which will manage the site. Site security measures would be installed along the boundary of the MPE project site, including palisade and chain-link fencing in accordance with the Urban Design Principles.
Names of companies involved in the studies	The list of consultants used for the MPE Project can be found in the Concept Plan EA on the NSW DP&E website: http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4400

6.3 Summary of MPE Stage 1 consultation

A range of consultation activities were undertaken to inform, engage and interact with the local community and stakeholders during the preparation of the MPE Stage 1 EIS. The level of consultation undertaken was reflective of the level of interest and concern shown by the stakeholders relating to the MPE Stage 1 Project and its potential impacts.

6.3.1 Consultation activities

During the preparation of the MPE Stage 1 EIS, consultation was undertaken with key stakeholders and agencies in accordance with the SEARs. This consultation included correspondence with government agencies and local councils, the local community and Aboriginal Heritage Representatives.

This consultation was undertaken through a range of mediums, including emails, phone conversations, face-to-face meetings and letter submissions. A summary of consultation activities that were undertaken during the preparation of the MPE Concept Plan is provided below.

Government agency consultation

A number of government agencies were consulted with during the preparation and assessment of the MPE Concept Plan, including:

- Commonwealth Department of the Environment (now Department of Environment and Energy - DoEE)
- NSW Department of Planning and Environment (NSW DP&E)
- NSW Environmental Protection Agency (NSW EPA)
- NSW Office of Environment and Heritage (OEH)
- NSW Department of Primary Industries (DPI), including the NSW Office of Water and Department of Fisheries
- NSW Rural Fire Service
- NSW Health
- NSW Ports
- Liverpool City Council
- Campbelltown City Council
- NSW Industry and Investment
- Sydney Ports Corporation

The abovementioned government agencies were consulted with in the form of, but not limited to, meetings (including visits to the MPE site), telephone conversations and email and letter correspondence.

Services and infrastructure providers

The following services and infrastructure providers were consulted with during the preparation of the Concept Plan EA to identify existing capacity and scope for augmentation of existing networks and infrastructures to support the operation of the MPE Project:

- Transport for NSW (TfNSW) / Sydney Trains
- NSW Roads and Maritime Services (RMS)
- Australian Rail Track Corporation (ARTC)
- Sydney Water Corporation
- Endeavour Energy
- Jemena
- Telstra
- AGL Upstream Investments Pty Ltd
- National Broadband Network Company.

The community and other stakeholders

Consultation during the preparation of the MPE Stage 1 EIS

Consultation activities to inform and engage the community began during the preparation of the Concept Plan EA as an ongoing process. Consultation with the local community has included the implementation of a combination of ongoing communications and community consultation mediums, as well as targeted consultation and engagement activities. These activities have included:

- Establishment of, and ongoing updates to, the MPE Project website (<http://simta.com.au>), providing information relating to the progress of the MPE Project, details relating to the environmental assessment and information for further consultation. Between December 2014 and April 2015 the website was updated 4 times, and visited on 1,200 occasions.
- An email feedback system. From December 2014-April 2015 nine email enquiries were received on the project.
- Establishment of a Project information line to enable all stakeholders to provide feedback and ask questions
- Provision of community newsletters sent to residential households within suburbs near the Proposal, including Casula, Wattle Grove, Holsworthy and Glenfield

Opportunities for consultation with other stakeholders was also provided via the abovementioned consultation activities. Other stakeholders include community groups, nearby landowners and business owners.

Consultation during the public exhibition and response to submissions stage

The EIS was placed on exhibition between 28 May 2015 and 26 June 2015 in accordance with Section 89F (1)(a) of the EP&A Act. Hard copies of the EIS were available for public review and comment at the following locations for the duration of the exhibition period:

- Liverpool City Council: Level 2, 33 Moore Street, Liverpool
- Liverpool City Council Library: 170 George Street, Liverpool
- Campbelltown City Council: 91 Queen Street, Campbelltown
- Campbelltown City Council Library: 1 Hurley Street, Campbelltown
- Nature Conservation Council: Level 2, 5 Wilson Street, Newton
- Department of Planning and Environment: 23-33 Bridge Street, Sydney.

The EIS (and associated reporting) was available to the public in electronic format on the DP&E website

(http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6766) during this time.

During the public display of the MPE Stage 1 EIS, eight submissions were received from State and Local government agencies, and 226 submissions were received from the community. One submission was also received from Gungarra Local Aboriginal Land Council. The key issues which have been raised by the Public for the Proposal included:

- Traffic and transport
- Site selection
- Noise and vibration
- Air quality
- Human health.

Submissions have been collated, analysed and addressed within relevant sections of this RtS, which includes consideration of all comments raised and provides additional information and clarification where required.

Aboriginal heritage consultation

Aboriginal consultation was undertaken as part of the Concept Plan Approval in 2011-2012 by Archaeological Heritage Management Solutions (AHMS). Due to the time between consultation with Aboriginal parties, it was deemed necessary to undertake further consultation for the MPE Stage 1 Proposal, to engage with any previous and additional members of the Aboriginal community.

AHMS were commissioned to conduct consultation as part of the *Aboriginal Heritage Impact Assessment* prepared for the MPE Stage 1 Proposal (refer to Appendix T and Section 17 of this EIS). A newspaper advertisement was published in the *Liverpool Champion* on 26 November 2014 to engage any additional Aboriginal stakeholders whom did not previously register an interest during the Concept Plan Approval. On 3 December 2014 notification of the MPE Stage 1 Project was sent to relevant Aboriginal parties, which included an invitation to register an interest, the draft methodology for the archaeological investigation works proposed to be undertaken for the Stage 1 Project.

Consultation was undertaken with the following Aboriginal parties whom registered interest in the Proposal:

- Tharawal Local Aboriginal Land Council (LALC)
- Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC)
- Darug Tribal Aboriginal Corporation (DTAC)
- Darug Aboriginal Cultural Heritage Assessments (DACHA)
- Tocomwall
- Darug Land Observations (DLO)
- Darug Custodian Aboriginal Corporation (DCAC)
- Darug Aboriginal Landcare Inc (DALI).

Subsequent to registering of interest, these Registered Aboriginal Parties participated in on-site investigations and were also contacted to provide input into the final draft Aboriginal Heritage Impact Assessment. Aboriginal consultation would continue throughout the SIMTA Project in accordance (as relevant) with the current OEH guidelines.

6.3.2 Key issues raised during MPE Stage 1 consultation

A number of key consultation stages were undertaken throughout the MPE Stage 1 Approval to enable progressive community and stakeholder engagement at various stages along the Project's timeline.

A summary of the key community issues identified during the public exhibition phase of the MPE Stage 1 EIS, and the Response to Submissions report is provided in Table 6-3.

Submissions were individually reviewed and categorised according to their key issue and sub-issue. The top four key issues raised by the community included:

- Traffic and transport
- Site selection
- Noise and vibration
- Air quality

Table 6-3 Summary of key issues raised during the MPE Stage 1 consultation

Topic	Issue raised during consultation	Response to issue raised
Traffic and transport	Concerns that facility will increase congestion on already busy roads	The traffic analysis found that the MPE Stage 1 Proposal would have a minor impact on Moorebank Avenue, Anzac Road, Cambridge Avenue and the M5 Motorway. Further intersection modelling identified that the MPE Stage 1 Proposal would not exceed the current capacity at surrounding intersections nor would it impact on the level of service (LoS) for the Moorebank Avenue/ Heathcote Road intersection. The MPE Stage 1 EIS outlines a number of mitigation measures that would be implemented prior to, and during, the operation of the MPE Stage 1 Proposal to further reduce impacts on the surrounding road network.
	Concerns about road safety with an increase in truck traffic on local roads and difficulty merging on and off M5 Motorway	Trucks would not use local roads for inbound or outbound movements. The MPE Stage 1 EIS identifies a number of mitigation measures which would be implemented to prevent the use of local roads. These would include GPS tracking and a driver code of conduct which would be prepared as part of the Operational Traffic Management Plan for the MPE Stage 1 Proposal. These mitigation measures are considered suitable to restrict truck movements, from the Proposal, on local roads. The MPE Stage 1 EIS assessed existing and potential traffic accidents on surrounding roads. It was assessed that the net impact of the additional traffic generated by the MPE

Topic	Issue raised during consultation	Response to issue raised
		<p>Stage 1 Proposal, as well as provision of the two access points to the Stage 1 site would result in a marginal increase from 12.2 crashes per year to 12.7 crashes per year on Moorebank Avenue, south of the M5 Motorway</p>
	<p>Concerns that the modelling inputs don't represent current conditions or allow for future growth</p>	<p>The AM and PM peak periods intersection turning movement counts were undertaken at intersections covering Moorebank Avenue and Cambridge Avenue and three interchanges with the M5 Motorway (between Hume Highway and Heathcote Road). Intersection turning movement counts were undertaken for 3 hours in the AM (6am to 9am) and 3 hours in the PM (3pm to 6pm) using video analysis. Additional traffic count surveys were undertaken prior to and after the M5 West Widening was opened. Results from the additional traffic count surveys undertaken in November / December 2014 are considered to be when 'normal conditions' were occurring.</p> <p>To assess the performance of the network when the MPE Stage 1 Proposal would be operational, the traffic assessment modelled the network with and without the MPE Stage 1 Proposal. Forecast growth rates were applied to the existing traffic volumes that were observed in November and December 2014 and the performance of key intersections modelled. The traffic modelling provided with the MPE Stage 1 EIS is considered accurate and suitable to assess the impacts of future growth on the surrounding traffic network.</p>

Topic	Issue raised during consultation	Response to issue raised
Site selection	Badgerys Creek is a more suitable location	<p>The MPE Stage 1 EIS outlines why the development of an IMT at Moorebank is considered the most appropriate location based on government policy (both state and Commonwealth), the current and future distribution of container freight and that a considerable amount of planning has been undertaken to reduce the overall impacts of the MPE Stage 1 Proposal on the surrounding area.</p> <p>The site is considered the most suitable site for the development of an IMT as a result of its proximity to a dedicated freight rail line being the SSFL, link to the M5 Motorway, current industrial zoning and the existing buffer areas provided between the site and sensitive receivers.</p>
	Concerns that the location of the development would impact on community amenity including schools, hospitals, parks and residential communities	<p>The MPE Stage 1 EIS outlines that the MPE Stage 1 Proposal site is considered the ideal position for the proposed facility as it is zoned as industrial land for use as industrial warehousing and has buffer zones are provided between the facility and nearby residential areas. The MPE Stage 1 Proposal would therefore be consistent with the existing land use, the adjacent land uses and potential future land uses.</p>
	Moorebank is no longer suitable for this type of industrial developed	<p>There has been strong and consistent support at State and Commonwealth Government levels for the development of an IMT in Moorebank. The MPE Stage 1 Proposal site has been earmarked as a highly suitable location for an IMT in both freight and distribution strategies (National Land Freight Strategy Discussion Paper, NSW Freight and Ports Strategy, Railing Port Botany's Containers and the Port Freight Logistics Plan) and planning strategies (A Plan for Growing Sydney, Draft Metropolitan Plan for Sydney and the Draft South West Subregional Strategy). The Commonwealth and State governments have further endorsed the development of an IMT on the MPE Stage 1 Proposal site through granting approvals including the EPBC Approval and the Concept Plan Approval.</p>

Topic	Issue raised during consultation	Response to issue raised
Noise and vibration	Concerns with operating 24 hours a day	The MPE Stage 1 EIS provide an assessment of the operational noise associated with both train, truck and container handling equipment on the MPE Stage 1 Proposal site. It is concluded that the site based operations comply with the relevant criteria at all receivers.
	Concerns about road noise from increased truck movements	The MPE Stage 1 EIS provide an assessment of the potential impacts of the MPE Stage 1 Proposal from road noise emissions. The MPE Stage 1 EIS concludes that increases in road noise, from operational trucks, is considerably less than 2 dBA and therefore complies with the Road Noise Policy.
	Concerns around rail squeal, shunting and associated train noise	<p>The MPE Stage 1 EIS identified that LAeq period and LAm_{ax} noise levels, in the absence of rail curve squeal will comply with relevant criteria at all sensitive receivers, with the exception of some receivers in Casula (identified as receiver NCA3).</p> <p>When rail curve screech/squeal is taken into consideration there is the potential to exceed rail noise criteria, on certain Casula properties. The MPE Stage 1 EIS identifies a number of mitigation measures, such as friction modifiers, track lubrication and associated rail noise monitoring, which would contribute to reducing the potential for rail noise associated with rail screech/squeal. The rail noise impacts associated with rail screech/squeal from the MPE Stage 1 Proposal, subject to the implementation of these mitigation measures, is considered to be acceptable.</p>
Air quality	General concerns around various factors contributing to negative impacts on local air quality	The Air Quality Impact Assessment of the MPE Stage 1 EIS concluded that the MPE Stage 1 Proposal would not result in additional exceedances of relevant impact assessment criteria. Introduction of the mitigation measures identified in Section 22 of the EIS, and updated in Section 8 of the RtS, would result in a reduction of ground level concentrations of particulate matter and nitrogen dioxide attributable to the MPE Stage 1 Proposal.

Topic	Issue raised during consultation	Response to issue raised
	Concerns around emissions from heavy vehicles and equipment that are run on diesel impacting air quality	The MPE Stage 1 Air Quality Impact Assessment quantified the emissions attributable to MPE Stage 1, including emissions from trucks, locomotives and heavy equipment on site. The modelling predictions indicate that the risk of adverse air quality impacts from the Proposal are low. The incremental increase in key pollutants at the surrounding residential areas would be largely indistinguishable from the existing background and the Proposal. For all other pollutants, the predicted concentrations are well below the impact assessment criteria.
	Concerns that vehicle emissions would result in increases in particulate matter that contributes to broader health and amenity impacts	The MPE Stage 1 EIS modelled the predicted emissions and emission dispersion for PM _{2.5} from the MPE Stage 1 Proposal, which includes particulate matter attributable to diesel emissions. The assessment concluded that the cancer risk from the air toxics are well below acceptable risk level set by international agencies.

6.4 Summary of MPE Concept Plan Modification 1 consultation

A Concept Plan modification application (No. 10_0193 – MOD1), prepared under Section 75W of the EP&A Act, was submitted concurrently with the MPE Stage 1 EIS. The content of the modification application was administrative in nature. As a result, the Concept Plan Modification 1 report did not require any further technical specialist input and was not placed on public display. Ongoing consultation was undertaken with NSW DP&E throughout the preparation of this document.

6.5 Summary of MPE Concept Plan Modification 2 consultation

A second Concept Plan modification application (Concept Plan Modification 2) (No. 10_0193 – MOD2) has been prepared under Section 75W of the EP&A Act, and has been submitted concurrently with this EIS. Consultation undertaken for this modification has included ongoing discussions through face-to-face meetings and email correspondence with the NSW DP&E, outlining the key modification components and highlighting any further assessment where required.

Consultation with key stakeholder and agencies for this modification has been undertaken concurrently with the consultation undertaken for MPE Stage 2 Proposal (refer to Section 6.6 of this EIS). Public display of Concept Plan Modification 2 is being undertaken concurrently with this EIS.

6.6 Summary of consultation undertaken for the Proposal

Consultation has been undertaken with key stakeholders and agencies as part of the preparation of this EIS in accordance with the SEARs (SSD 16-7628), Concept Plan CoA and SoC. Consultation has included discussions and correspondence with Commonwealth and State government agencies, infrastructure and service providers, the community and Aboriginal Heritage Representatives.

Consultation has been undertaken via a range of mediums, including telephone calls, private and joint meetings and correspondence (letters and emails). Section 6.5.1 to Section 6.5.5 summarises the consultation that has been undertaken for the Proposal during the preparation of this EIS, including the issues raised and, where relevant, where these issues have been addressed and / or considered.

6.6.1 Government agencies and local councils

Commonwealth Department of the Environment and Energy

A letter was sent to the Commonwealth Department of the Environment and Energy (DoEE) via email in October 2016, in accordance with the SEARs, to demonstrate compliance with the Condition of Approval issued for the MPE Project as part of the EPBC Approval (under Section 130 of the EBPC Act). The memorandum also contained a description of the Proposal, a site layout plan, and preliminary information relating to potential contamination on the Proposal site. At the time of writing a response to this letter had not yet been received.

NSW Department of Planning and Environment

The NSW Department of Planning and Environment (NSW DP&E) has been consulted regularly throughout the preparation of this EIS, regarding various elements of the Proposal. Consultation has been undertaken in the form of meetings, telephone conversations, correspondence (emails and letters) and also the submission of Proposal related documentation.

SEARs were issued by DP&E for the Proposal on 27 May 2016. A meeting was held in June 2016 with NSW DP&E to discuss the SEARs issued for the Proposal, and to clarify specific requirements. The clarifications discussed as part of this meeting are summarised in Table 6-4 below.

Table 6-4 Outcomes from June 2016 meeting with NSW DP&E

Section in SEARs	Relevant requirement in SEARs	Clarification/outcome
General requirements	A health impact assessment of local and regional impacts associated with the development, including those health risks associated with relevant key issues. The assessment should be undertaken with reference to the Centre for Health Equity Training, Research, and Evaluations' practical guide to impact assessment (August 2007) and shall include:	The assessment of health impacts for the project will be undertaken to be consistent with the approach adopted for the Moorebank Precinct East (MPE) Stage 1 (Formerly SIMTA stage 1). A screening health impact assessment was completed for the Moorebank Precinct East Stage 1 EIS, incorporating consultation outcomes from the Concept Plan Approval health risk assessment. We assume that the health impact assessment summary and outcomes remains applicable to the MPE Stage 2 and does not need updating.

Section in SEARs	Relevant requirement in SEARs	Clarification/outcome
	<ul style="list-style-type: none"> • A discussion of the known potential developments in the local region. • An assessment of the impact on the environmental values of public health • An assessment of local and regional impacts including health risks. 	<p>It was proposed to update the quantitative health risk assessment, based on the revised modelling predictions for noise and air quality, including cumulative impacts. The methodology for the health risk assessment would be similar to the MPE Stage 1, which was approved by NSW Health.</p> <p>The Human Health Assessment report to be appended to the MPE Stage 2 EIS will refer to the previous health impact assessment, summarise key conclusions and discuss applicability to the current assessment.</p>
Noise and Vibration	c) be prepared in accordance with the Rail Infrastructure Noise Guideline (EPA, 2013), Development Near Rail Corridors and Busy Roads Interim Guideline (DoP, 2008).	<p>The project does not include a rail component and therefore the RING is not relevant to the assessment of the project.</p> <p>As discussed during the meeting on Wednesday 16/06, the noise and vibration impact assessment will not be prepared to address the requirements of these guidelines and the EIS will note that the NVIA has not considered these guidelines, as they are not relevant to the assessment of this stage.</p>
Soil and water	d) describe any changes to environmental availability	Where this deemed not relevant during the preparation of the EIS, this will be documented accordingly with justification being provided of this not being relevant to the application.
Soil and water	j) consideration of stormwater quality and management (including monitoring)	With reference to operational monitoring, the EIS will provide an assessment of stormwater quality and management and consider monitoring, amongst other mitigation measures, that may be developed/proposed as part of the EIS.
Soil and water	o) Include an assessment of potentially contaminated areas in accordance with the National Environmental Protection Measure 2013 in addition to an assessment of potential areas of Perfluorinated Compounds	The contamination assessment will consider the NEPM; however, as previous contamination investigations within the MPE Site have not identified the presence or potential presence of PFCs at levels requiring specific management within the site, this is not expected to constitute a large component of the contamination and/or soil and water assessment.

Throughout the preparation of the EIS for the Proposal, a number of design refinements were made and the construction methodology was further refined. These refinements resulted in a number of changes to the Proposal description and it was identified that a modification to the MPE Concept Plan was required (Concept Plan Modification 2).

Qube holdings issued NSW DP&E a letter, describing the proposed design refinements, a summary of the revised Proposal and discussion as to why the existing SEARs provided for the assessment of the Proposal were relevant and no further environmental assessment requirements were warranted. Amended SEARs were provided by NSW DP&E on 24 November 2016, based on the revised Proposal description.

NSW Environment Protection Agency

The NSW Environmental Protection Agency (EPA) was contacted by phone in October 2016 to provide an overview of the Proposal and to arrange a formal consultation meeting. The EPA noted interest in the Proposal, but did not see benefit in a formal meeting, preferring to be consulted via written mediums. Subsequently, a letter was issued to the EPA in November 2016, in accordance with the SEARs, noting EPA's endorsement of the Draft SEARs (as detailed in a letter to DP&E dated 18 May 2016), and to provide a general overview of the Proposal and key environmental aspects. Executive summaries of the air quality and noise and vibration specialist studies were included within the letter. At the time of writing a response to this letter had not yet been received.

NSW Office of Environment and Heritage

The NSW Office of Environment and Heritage (OEH) were contacted by phone in October 2016 to provide an overview of the Proposal. Subsequently, a technical memorandum was sent to provide a description of the proposed works and key information on investigations regarding Biodiversity, Aboriginal Heritage and Stormwater and Flooding in accordance with the SEARs. At the time of writing a response to this letter had not yet been received.

NSW Department of Primary Industries

A letter was provided to the NSW Department of Primary Industries (DPI) in November 2016 to provide an overview of the Proposal, and specialist investigations being carried out for the Proposal with respect to biodiversity, stormwater and flooding, in accordance with relevant SEARs. At the time of writing a response to this letter had not yet been received.

NSW Rural Fire Service

A letter was provided to the NSW Rural Fire Service in October 2016 to provide a general description of the Proposal, and of details regarding the Bushfire Protection Assessment (refer to Appendix U) undertaken in accordance with the SEARs. At the time of writing a response to this letter had not yet been received.

NSW Health

NSW Health were contacted by phone in October 2016 to provide an overview of the Proposal and to arrange a formal consultation meeting. NSW Health noted interest in the Proposal, but did not see benefit in a formal meeting, preferring to be consulted via written mediums. A letter was emailed to NSW Health in November 2016 which included an overview of the Proposal and the Executive Summary of the Health Risk Assessment (refer to Appendix N of this EIS), prepared to address relevant SEARs for the Proposal. At the time of writing a response to this letter had not yet been received.

NSW Ports

NSW Ports were contacted by email in October 2016 and provided with a general overview of Proposal activities. Comments and feedback on a number of Proposal-related elements was received, and updates to both the Proposal design and EIS documentation were made accordingly. NSW Ports further responded, confirming they did not want anything further in relation to EIS consultation.

Liverpool City Council

A meeting was undertaken with Liverpool City Council (LCC) in late October 2016 to provide an overview of the Proposal as described in Section 4 of this EIS. The meeting included a presentation on previous MPE Project approvals, the Proposal description and key environmental aspects (air and noise) assessment approaches.

A presentation was provided during this meeting that detailed the preliminary results of the operational traffic reporting (Appendix K of this EIS) for the Proposal, including cumulative traffic, and the draft results of air and noise assessments. A summary of key comments and issues raised at this meeting and the responses provided in the same meeting are provided below in Table 6-5.

Table 6-5 Consultation comments from Liverpool City Council

Topic	Comment	Response
Water Quality	LCC queried the targets and guidelines adopted for the Proposal to manage water quality	It was noted that the water quality associated with the Proposal would be treated to maintain or improve existing water quality (NorBE), as required in the SEARs. It was also specifically mentioned that WSUD infrastructure, including raingarden and Gross Pollutant traps (GPTs) would be employed onsite, and that water quality targets were aligned with the Georges River Estuary CZMP 2013 (refer to Section 12.3 of this EIS and Appendix P).
Water Quantity	LCC queried site discharge points	It was expressed that there are three key discharge points: either via the central OSD into the northern/southern OSDs and discharging to the eastern boundary; or via the western OSD into the stormwater channel through MPW and into the Georges River (refer to Section 12.3 of this EIS and Appendix P).

Topic	Comment	Response
Noise Modelling	LCC questioned the activities that have been considered in the noise modelling, specifically containers LCC queried how dropping and shunting trains would be assessed, noting they would likely be much louder than the criteria for sleep disturbance.	<p>It was noted that the assessment undertaken for the Proposal was for warehousing rather than for the terminal, however this would have been considered in the cumulative scenario. The loudest (LA_{max}) transient noise sources were assessed by modelling the noise impact of pneumatic trailer brakes on trucks, considered louder than other short-term noise impacts such as 'banging' noises associated with moving containers.</p> <p>Modelling results (refer to Section 6.5 of NVIA for the Proposal – Appendix L) indicate that predicted LA_{max} noise levels comply with the established sleep disturbance screening criteria in all catchments except Wattle Grove, which is predicted to exceed the established screening criterion by 1 dB, under adverse meteorological conditions.</p>
Whole of precinct assessment	LCC enquired as to how a whole of precinct plan will be developed	It was confirmed that the approach for monitoring and reporting across both the MPE and MPW Projects (as a whole) is currently under assessment. This approach is considering noise, air and water quality components. Details would be included in the OEMP rather than the EIS, and mitigation measures reflecting this assessment are provided in the compilation of mitigation measures (refer to Section 21 of this EIS).
Detailed design: Road pavements	LCC questioned about the design life of road pavements	It was noted during the meeting that this detail is not included in the EIS, but is being progressed as part of the detailed design of the Moorebank avenue upgrade works. This design considers a road pavement design life of approximately 40 years.
Operational Traffic: Distribution	LCC noted that Bigge Street should be considered as a potential rat-run from the north to the south and vice versa	It was confirmed that the extent of our modelling does consider Bigge Street. Despite this, it was explained that traffic distribution heading north on Moorebank Avenue via Newbridge Road does not preclude this traffic distribution.

Topic	Comment	Response
Operational traffic assessment	LCC expressed concern over the number of external trips appearing low compared to the RMS guidelines for warehousing trip generation	It was explained that external trips assessed are those on the external network, and that there is a corresponding amount of internal trips from the terminal to the warehousing via a captive fleet of onsite trucks making internal trips only. These internal trips are not considered in the traffic impact assessment as the assessment considers only impacts on the external road network and internal network in direct response to the SEARs.
Staff numbers	Discussion around the total number of staff across all shifts	The total is 1408 staff across all shifts.
Operational traffic	LCC expressed concerns over Newarra road being used as a rat-run for north bound traffic	It was noted that the use of heavy vehicles along Anzac Road is not permitted, so this would not eventuate.

Campbelltown City Council

Campbelltown City Council (CCC) were contacted on numerous occasions during the preparation of this EIS to discuss and address any concerns or queries that CCC may have in relation to the Proposal. In lieu of a formal meeting, CCC were provided with a detailed outline of the Proposal. It was also noted during this correspondence that previous comments from CCC, relating to operations, have been addressed, and the operations are proposed for 24 hours per day, 7 days a week.

An additional email was sent to CCC, attached with a presentation (the same as presented to LCC) outlining the proposal and respective traffic, noise and air specialist investigations findings.

6.6.2 Service and infrastructure providers

All relevant service and utility providers were contacted during the preparation of the Proposal to determine the capacity of the existing service networks relevant to the Proposal site, and their ability to cater to the additional utility demand resulting from the operation of the Proposal. Specific service and infrastructure providers that were consulted during the preparation of this EIS, and a summary of the nature of the consultation undertaken is described below.

Roads and Maritime Services and Transport for NSW

Roads and Maritime have been consulted with on a number of occasions throughout the development of the Proposal. In particular, consultation has been predominately based around establishing and agreeing on a suitable approach for the operational traffic modelling for the Proposal, using the appropriate AIMSUN (LMARI) modelling scenario, which is also to be applied in the context of the separate Precinct modelling, being undertaken by MIC for the Moorebank Precinct.

A representative from TfNSW was contacted by email in October 2016 confirm the strategy for delivering the modelling results for the Proposal. A meeting was held in November 2016 with members from Roads and Maritime in attendance to communicate the results for the study.

A summary of issues raised during this meeting, and how they have been responded to, is provided below in Table 6-6.

Table 6-6 Key issues from meeting with TfNSW and Roads and Maritime Services

Topic	Comment	Response
Truck holding areas	Roads and Maritime asked whether the Proposal considers heavy vehicle truck holding areas.	SIMTA responded to Roads and Maritime, noting that similarly to MPW, truck holding areas would be provided within the Proposal site, so as to minimise impacts on the local road network.
Haulage routes	Roads and Maritime asked whether heavy vehicles accessing the Proposal site would contemplate the use of Cambridge Avenue.	SIMTA responded, noting that Cambridge Avenue would potentially be used by light vehicles only, and the prohibition of heavy vehicles using Cambridge Avenue would be included in the OTMP for the Proposal, to be appended to the EIS (Refer to Appendix K).
Traffic modelling clarification	Roads and Maritime requested clarification of what the 'peak' periods were in the base assumptions of the PB precinct wide traffic modelling.	SIMTA responded, clarifying that the AM peak period is between 8am and 9am and the PM peak is between 5pm and 6pm.
Traffic assessment methodology	Roads and Maritime questioned whether the level of service (LoS) results in the 2015 do-nothing traffic modelling scenario included the average delay at intersections to be modelled.	SIMTA responded, noting that the average delay, in seconds, is provided in the operational traffic and transport impact assessment to be appended to the EIS.
Cyclist and pedestrian provisions	Roads and Maritime asked whether cyclist and pedestrian provisions will be included as part of the Proposal.	SIMTA described what provisions are included in the Proposal, including a shared pedestrian path and facilities within the Proposal site for staff.

Sydney Water

A meeting with Sydney Water was undertaken in October 2016 to discuss the status of the Proposal and the Moorebank Precinct, management responsibilities tied to NOR 144792 and further investigations to be undertaken to finalise detailed design. Future ongoing discussions are to be undertaken at 6-monthly intervals for progress updates.

Jemena

Jemena was contacted by email, providing them with an overview of the Proposal in October 2016. No response has been received to date during the preparation of this EIS.

Endeavour Energy

Recent consultation was undertaken with Endeavour Energy in October 2016 to confirm the status of the existing application and the need for further investigations including feeder locations and lighting arrangements.

It was confirmed that Endeavour Energy would have the capacity to supply the MPE Project from the Anzac Road zone substation. It was agreed that future discussions are to take place on an ongoing 6-monthly basis for progress updates.

Telstra

Telstra were consulted in October 2016 to confirm plans to lodge an application for services in relation to the Proposal, and the existing site conditions with regard to future investigations. It was determined that lodgement would not need to be submitted until mid to late 2017 to confirm whether Telstra or NBN would be utilised.

As part of this consultation, it was confirmed that the existing telecommunications network running along Moorebank Avenue would be impacted as a result of the Moorebank Avenue Upgrade works, and procedures to manage this as part of the planning process were discussed. It was confirmed that a single termination point would be provided with regards to the IMEX for the MPE Project. Ongoing discussions would continue throughout the detailed design process.

AGL Upstream Investment

AGL Upstream Investment were consulted by phone in October 2016 to identify details of any AGL assets that may exist within the Proposal area, and to outline potential steps to be undertaken should alternative energy generation options be pursued onsite. Discussions are ongoing and expected to continue throughout the detailed design phase of the Proposal.

6.6.3 Community consultation

Consultation with the community has built upon previous consultation undertaken for the MPE Concept Approval, and MPE Stage 1 EIS, as outlined in Section 6.2.1 and Section 6.3.1 respectively.

One of the key community consultation activities undertaken for the Proposal was in August 2016. At this time SIMTA distributed a newsletter to approximately 10,000 households in the suburbs surrounding the MPE Project to inform them about the Proposal, and detail how they could submit feedback or request more information. To date no submissions have been received specifically relating to this newsletter.

The following feedback mediums were referred to in the newsletter and made available to the community throughout the preparation of the EIS:

- **A stand-alone website:** 'www.simta.com.au' which is regularly updated to provide detailed, quality information to the community about the Proposal and planning process. The website provides information about the different ways to contact the Project Team with feedback or questions.
- **An Email feedback system:** 'consulting@elton.com.au' which is a convenient online feedback system for stakeholders, and an efficient way for people to obtain responses from the Project Team within 48 hours. From December 2014-April 2015 nine email enquiries were received on the project.
- **A free-call information line:** (1800 986 465) available between 8:30am and 5:00pm weekdays. A message-bank is provided outside of these times, and telephone messages are returned within 48 hours.

6.6.4 Potentially affected and adjoining landowners

Consultation has been undertaken to inform and engage the surrounding community, including properties that may be affected from the Proposal. The nearest residential receivers to the site include the suburbs of Wattle Grove (360 m east), Moorebank (1,300 m north), Casula (820 m west) and Glenfield (1,830 m south). The Proposal site is directly surrounded by DJLU land to the north and north east, bootland to the east and south east, and Moorebank Avenue and the MPW site to the West. Consultation has been undertaken with all relevant surrounding residential properties during the preparation of the EIS.

Furthermore, ongoing consultation was undertaken with individual properties immediately adjacent to the Proposal site and other key stakeholders during November 2016 regarding a potential Clause 49 designation under the *Environmental Planning and Assessment Regulation 2000* for the Proposal (designation for the Proposal as having multiple land owners). It is anticipated that consultation with surrounding landowners would be ongoing and include further detail of the Proposal specific to each landowners interests.

The Defence Joint Logistics Unit (DJLU), the Bootland and parts of Moorebank Avenue located directly adjacent to the Proposal are owned by the Commonwealth of Australia (Department of Defence). The Department of Defence has been consulted with on a number of occasions relating to activities within the Moorebank Precinct. In particular, a technical memorandum was issued in late September 2016 which included a description of the Proposal in the context of surrounding Defence operations.

6.6.5 Aboriginal community involvement

Aboriginal consultation for the Proposal built on consultation previously undertaken during the MPE Concept Approval and MPE Stage 1 heritage investigations. Consultation was undertaken with the following Aboriginal parties whom registered interest in the MPE Stage 1 Proposal:

- Tharawal Local Aboriginal Land Council (LALC)
- Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC)
- Darug Tribal Aboriginal Corporation (DTAC)
- Darug Aboriginal Cultural Heritage Assessments (DACHA)
- Tocomwall
- Darug Land Observations (DLO)
- Darug Custodian Aboriginal Corporation (DCAC)
- Darug Aboriginal Landcare Inc (DALI).

A draft version of the MPE Stage 2 Aboriginal Heritage Impact Assessment Report was provided to the RAPs listed above for comment. To date we have not received any responses. This approach is considered appropriate for this Stage as there would be no impacts to Aboriginal heritage.

6.7 Ongoing future consultation

6.7.1 EIS public display and response to submissions

This EIS would be placed on public display between December 2016 and January 2017 in accordance with Section 89F of the EP&A Act. This public display period would provide an opportunity for all stakeholders to comment on the Proposal. On completion of the public display period, all submissions received would be considered in a formal document which would include the following:

- Response to Submissions Report, responding to issues raised in the submissions
- A revised Compilation of Mitigation Measures, which would update those provided in the EIS summarising the mitigation measures to be implemented for the Proposal during construction and operation
- And/or, if necessary, a Preferred Project Report, outlining any significant changes to the Proposal and further environmental impact assessment.

This additional reporting would be provided to NSW DP&E, who would provide this information on their website for all stakeholders to view.

6.7.2 General consultation activities

SIMTA, as the Proponent, is committed to undertaking regular consultation with stakeholders, including the community throughout the planning, construction and operational phases of the Proposal.

Opportunities would be provided for the community to provide feedback as well as for the dissemination of up-to-date information on the MPE Project at any time, inclusive of the construction phase of the Proposal via an email feedback system (SIMTA@elton.com.au) and the maintenance of a free-call information line (1800 986 465) which is available 24 hours a day.

In addition, the MPE Project website (www.simta.com.au) would be regularly updated throughout construction of the Proposal, to provide accessible, up-to-date information regarding the Proposal.

6.7.3 Consultation during construction of the Proposal

A number of mitigation measures have been provided throughout this EIS to reduce the impact of the Proposal on surrounding stakeholders, including the community (refer to Section 22 for a summary of mitigation measures for the Proposal).

SIMTA will continue community consultation throughout the duration of the Proposal via consultation mediums outlined in Section 6.6.3. Continued update and operation of the project website, email feedback system and free-call information line would be maintained throughout the construction phase of the Proposal.

6.8 Design amendments as a result of consultation activities

This EIS has given consideration to all comments received during consultation and, where possible, amended the design and planning for the Proposal to address these concerns. The design of the Proposal has been based on that provided in the MPE Concept Plan Approval. However, where possible, design changes have been considered to further reduce the impact of the Proposal on the surrounding environment and to improve the efficiency of operation of the MPE Project.

Technical specialist studies have assessed a range of potential impacts associated with the Proposal. Each of these impact assessments have proposed mitigation measures, which include adjustments to the design, along with protocols and procedures to be undertaken during construction and operational phases of the Proposal to reduce residual impacts on the surrounding community and environment arising as a result of the Proposal. This section refers only to design changes, as requested by the SEARs (Consultation), however reference should be made to individual assessment sections included within this EIS for mitigation measures, as well as the compilation of mitigation measures to be implemented for the Proposal (refer to Section 21 of this EIS).

Generally SIMTA have been undertaking consultation since 2010 and, as a result, have been provided with valuable feedback throughout this time. The key feedback from this consultation has been considered and, as suitable, integrated into the design for the Proposal. The inclusion of these elements within the design of the Proposal is reflected in the consultation provided, with a considerable number of agencies not providing formal comment on the Proposal during consultation (refer to Section 6.6 of this EIS).

A summary of the key issues raised during consultation and how the design of the Proposal has been amended, or not, to respond to these issues is provided in Table 6-7. A description of the Proposal, which includes all of these design updates, is provided in Section 4 of this EIS.

Table 6-7 Summary of design changes made as a result of specialist investigations

Topic	Issue	Design Response
Ancillary structure configuration	Location of freight village	The Concept Approval included the presence of a freight village at the north-eastern corner of the MPE site, adjacent to the northern site boundary. During the course of the Proposal design and agency discussions, it was decided that the position of the freight village could be optimized by moving it further west, to be adjacent to Moorebank Avenue. This would attract a greater passing trade and make the freight village site more commercially viable.
Internal road configuration	Use of internal roads could be made more efficient and safer	The original Concept Approval contained two internal service roads in addition to the estate road and Moorebank Avenue frontage. Consultation with key agencies and specialist investigations has reconfigured the internal road network to contain separate networks for regular vehicles and those involved with direct transfer of containers from the IMT to the warehouses, resulting in a safer and more efficient internal road network.

Topic	Issue	Design Response
Warehouse configuration	The warehouse configuration could further optimise site efficiencies and minimise environmental impacts	A refinement of the warehouse configuration to that presented in the Concept Approval (Refer to figure 4-2 of this EIS) includes a mixture of smaller and larger format warehousing throughout the site. This helps to optimise the stormwater design on the site, and allows for more efficient movement of freight between warehouses and the IMT.
Moorebank avenue upgrade	Drainage throughout the Moorebank precinct	It was decided during the design for the Proposal that adjustment to the vertical alignment of Moorebank Avenue would improve drainage across the MPE site and downstream MPW site to best retain flow rates and patterns in the surrounding area. Surrounding site constraints, discussed throughout meetings with key agency groups described in Section 6.5 along with existing and proposed traffic flows were considered when allowing for this design refinement.

6.8.1 Consultation during operation

Written notification would be provided to likely and potentially affected and adjoining land owners receivers prior to commencement of site operations. This would include local residents, local businesses and relevant Authorities. The manner of the notification would be confirmed in the final OEMP for the Proposal. The OEMP would also include measures to engage with stakeholders and to manage and respond to feedback received during operation of the Proposal.

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