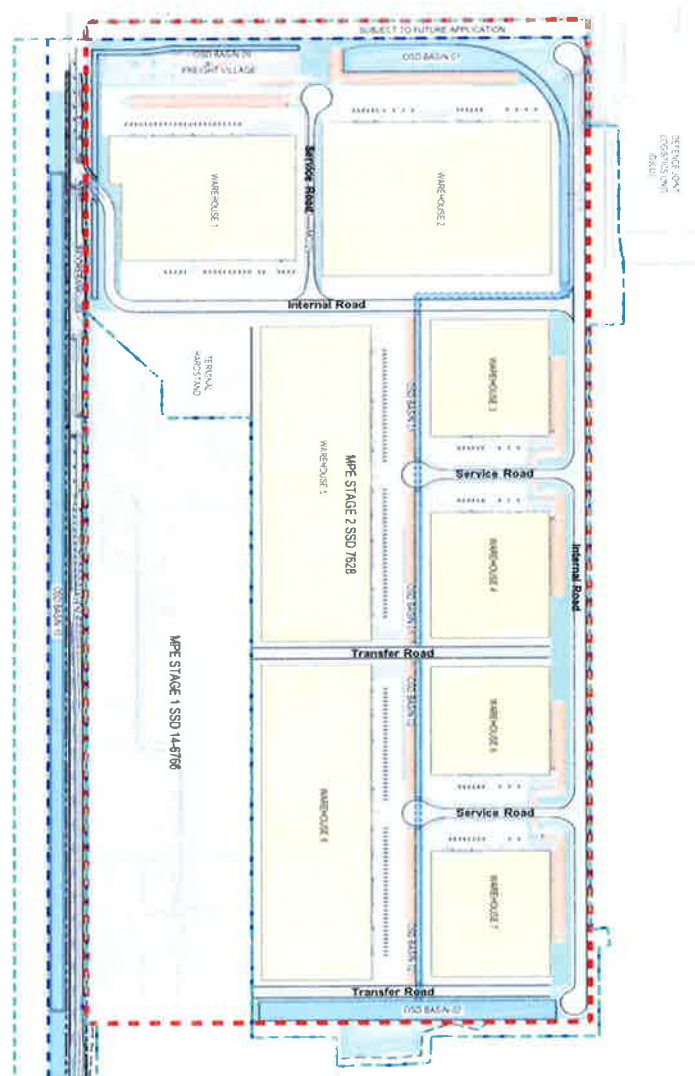


**STATE SIGNIFICANT DEVELOPMENT  
ASSESSMENT REPORT:**

**MOOREBANK INTERMODAL TERMINAL, MOOREBANK  
PRECINCT EAST, MOOREBANK AVENUE, MOOREBANK**

**SSD 7628**

Environmental Assessment Report  
Section 89H of the  
*Environmental Planning and Assessment Act 1979*

November 2017

Cover Photograph: Proposed site access and layout (Base source: Applicant's RtS)

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## ABBREVIATIONS

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Applicant	SIMTA, as Qube Holdings Limited, or anyone else entitled to act on this consent
ARI	Annual recurrence interval
CBD	Central business district
Concept Plan/ Concept Proposal	Approved Concept Plan for the redevelopment of the site (MP 10_0193)
Commission	Planning Assessment Commission
Consent	Development Consent
Council	Liverpool City Council
DA	Development application
dB	Decibel
DCP	Development Control Plan
Department	Department of Planning and Environment
DJLU	Defence Joint Logistics Unit
DNSDC	Defence National Storage and Distribution Centre
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FEAR	Future Environmental Assessment Requirement
GANSW	Government Architect of NSW
GFA	Gross floor area
ICNP	Interim Construction Noise Policy
IMEX	Import/export
INP	Industrial Noise Policy
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of service
Minister	Minister for Planning
MIC	Moorebank Intermodal Company
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
NML	Noise Management Level
OEH	Office of Environment and Heritage
OSD	Onsite detention
PMF	Probable Maximum Flood
Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SoCs	Statement of Commitments
SSD	State significant development
Stage 1 Approval	the approved Stage 1 DA for the MPE site comprising an intermodal terminal
Stage 2 Application	this SSD application
TEU	Twenty-foot equivalent unit
TfNSW	Transport for New South Wales
ToA	Term of Approval
TSC Act	<i>Threatened Species Conservation Act 1995</i>
UHI	Urban heat island
VENM / ENM	Virgin excavated natural material / excavated natural material

## EXECUTIVE SUMMARY

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This report provides an assessment of a State significant development (SSD) application for Stage 2 of the MPE Intermodal Precinct development comprising warehousing and distribution facilities and upgrades to part of Moorebank Avenue (SSD 7628). The MPE site is part of the Moorebank Intermodal Precinct, located at Moorebank Avenue, Moorebank. The Applicant is SIMTA (Sydney Intermodal Terminal Alliance), as Qube Holdings Ltd and the proposal is located within the Liverpool local government area (LGA).

The proposal seeks approval for:

- earthworks including the importation of 600,000 cubic metres (m<sup>3</sup>) of fill
- 300,000 square metres (m<sup>2</sup>) gross floor area (GFA) of warehouse use
- 8,003 m<sup>2</sup> GFA freight village
- establishment of internal roads, connection to the surrounding road network / site access
- raising the level, and upgrading of, Moorebank Avenue, upgrade of Moorebank Avenue intersections and temporary diversion road
- ancillary works including stormwater / flooding drainage infrastructure, utilities, vegetation clearing, landscaping, earthworks, remediation and signage
- subdivision of the MPE site.

The proposal has a Capital Investment Value (CIV) of \$454,020,000 and is expected to generate 200 construction jobs and 1,400 operational jobs once fully developed. The proposal is SSD under clause 12(1) of the State and Environmental Planning Policy (State and Regional Development) 2011, as it is *development for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation* with a CIV of more than \$50 million. The Minister for Planning is the consent authority; however, in accordance with the Minister's delegation the Planning Assessment Commission may determine this application as more than 25 public submission were received.

The application was publicly exhibited between 13 December 2016 and 24 February 2017. The Department of Planning and Environment (the Department) received a total of 204 submissions, including seven from public authorities, and 197 from the public. Additional submissions from five public authorities were received in response to the Applicant's Response to Submissions (RtS). The Applicant responded to these submissions in a consolidated assessment clarification response.

The key issues raised in the submissions include traffic, site suitability, biodiversity, noise, contamination, health, air quality, visual impacts, impacts of fill, hydrology and water sensitive urban design (WSUD), consultation, hours of operation, light spill, heritage and the planning process. The Department has considered the above issues in its assessment, along with consistency with the Concept Plan, urban heat island effect, freight village uses, subdivision, local contributions and signage.

The Department has considered the merits of the proposal in accordance with relevant matters under section 79C, the objects of the *Environmental Planning and Assessment Act 1979*, the principles of Ecologically Sustainable Development, and issues raised in all submissions as well as the Applicant's response to these.

The Department is concurrently considering a request to modify the Concept Plan approval (MP 10\_0193), which seeks amendments to facilitate this SSD application. The Department therefore considers it appropriate that this SSD application be considered in accordance with the Department's final recommendations for the modification application.

In relation to fill importation, the Department recommends a condition requiring only Excavated Natural Material (ENM) and Virgin ENM to be imported to the site, together with other environmental management conditions.

The Department considers that the diversion of Moorebank Avenue during construction of the Moorebank Avenue road upgrades will be critical to maintaining the operation of the regional traffic network, and considers that the proposal to construct a temporary diversion road on the MPW site is an appropriate approach to mitigating those effects.

The Department has reviewed the new access point for the site, and considers it will provide an acceptable arrangement for vehicles entering and exiting the site.

The Department considers that there is a broader regional need for the Applicant to make developer contributions to necessary infrastructure upgrades. Ultimately, the application would result in increased traffic in and around the precinct, as vehicles enter and exit the warehousing precinct with goods to and from the intermodal terminal and staff access the site. The Department recommends the Applicant deliver three main intersection upgrades at Moorebank Avenue/M5, Newbridge Road/Moorebank Avenue, and the Moorebank Avenue/Heathcote Road, in accordance with the requirements of Transport for NSW and RMS. The timing for these upgrades would be staged, based on when the predicted impacts would occur.

An extension to the standard hours of construction is recommended to be subject to a three-month trial period to allow for monitoring and implementation of appropriate work protocols. As part of its consideration of the out-of-hours protocol, consideration will be given to the nature of activities proposed to be undertaken out of standard hours so that noisier activities, such as rock breaking, and the laying of fill over the site, are restricted to standard hours.

The proposed hours of operation being 24 hours / 7 days a week and associated noise impacts can be adequately managed through recommended conditions setting the maximum operational noise limits for the development and requiring ongoing monitoring to prevent sleep disturbance impacts. The proposal is not considered to result in adverse traffic noise impacts.

Air quality impacts during the construction and operational phases of the development can be appropriately managed and mitigated and the Department recommends conditions requiring monitoring, no more than 22,000 tonnes of fill be imported to the site per day in accordance with EPA requirements and the preparation and implementation of various environmental management plans.

The Department considers the development is likely to have adverse built form, visual impacts and urban heat island (UHI) effects in its current form and recommends amendments to improve the design, layout, landscaping and Water Sensitive Urban Design (WSUD) elements of the development. In particular, conditions have been recommended in relation to increasing open space and canopy trees in the proposal. The proposal would not have adverse amenity impacts during construction or operation subject to meeting the relevant Australian Standard and implementing best practice lighting design, materials use, and conditions have been recommended that would drive this outcome

Provided freight village uses are limited to those that are ancillary to, provide support for, or a nexus to, the intermodal development (including its workers and tenants), and include uses for commercial, retail and light industrial uses, the proposal freight village is recommended for approval as part of the development. The proposed Subdivision of the site is acceptable subject to appropriate legal, management and maintenance conditions to ensure that the development continues to function as a single operation.

The Department considers that the development would have adverse impacts in relation to flooding and stormwater without the implementation of measures to control flows and treat stormwater runoff from the developed site. Although the Applicant has provided concepts for onsite detention and biofiltration systems, the Department is not satisfied that the correct design will achieve the stated outcomes to protect water quality (and hence also the ecological values of receiving waters) and does not consider that the current design for stormwater management

represents current practice in relation to WSUD. The Department has therefore recommended conditions that specify WSUD outcomes, onsite maintenance requirements, and requirements for easements for maintenance of stormwater systems and outlet scour protection affecting adjacent lands

The Department acknowledges that the proposal would result in the removal of existing on-site vegetation and the importation of fill to the site would have impacts on the biodiversity values on-site. However, subject to detailed recommended conditions including biodiversity offset credits and biodiversity and vegetation management plans the biodiversity impacts can be appropriately managed and mitigated.

The Applicant is recommended to contribute \$3,577,900 to Liverpool City Council for the provision of local infrastructure, prior to the commencement of construction, unless an agreement between Council and the Applicant is reached for an alternative amount.

The Department has also considered matters relating to hazards and contamination, heritage and archaeology, waste, social and economic impacts, human health, signage, consultation, the planning process and property values. The Department concludes that these matters have been appropriately addressed with the application of conditions of consent and are therefore acceptable.

On balance, it is concluded that the development's benefits outweigh its potential impacts, and that any residual impacts can be managed and would not, subject to conditions, result in any long term adverse or irreversible effects. The development would deliver the warehousing component of the Concept Plan approved by the Planning Assessment Commission, and support the development of the Moorebank Precinct as an integrated intermodal and warehousing development that has the capacity to increase the rail share of freight moving from Port Botany and Sydney's south west.

The development supports the Government's strategic goals to significantly boost the capacity of Sydney's global gateways, allow Sydney's transport networks to grow in line with the city's population, improve productivity of the freight network, minimise road congestion and boosting the economic potential of the Greater Sydney Region. The Department therefore concludes that the proposal is in the public interest and recommends that the application be approved, subject to conditions.

# TABLE OF CONTENTS

<b>1.</b>	<b>BACKGROUND .....</b>	<b>2</b>
1.1	Introduction .....	2
1.2	Moorebank Intermodal Terminal Precinct .....	2
1.3	The MPE site and surroundings .....	4
1.4	Relevant planning history .....	7
<b>2.</b>	<b>DESCRIPTION OF PROPOSAL .....</b>	<b>13</b>
2.1	Description of proposal .....	13
2.2	Project need and justification .....	16
2.2.1	NSW State Priorities .....	16
<b>3.</b>	<b>STATUTORY CONTEXT .....</b>	<b>21</b>
3.1.	State Significant Development .....	21
3.2.	Consent Authority .....	21
3.3.	Permissibility .....	21
3.4.	Environmental Planning Instruments .....	22
3.5.	Objects of the EP&A Act .....	22
3.6.	Ecologically Sustainable Development .....	24
3.7.	Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) .....	24
3.8.	Secretary's Environmental Assessment Requirements .....	25
<b>4.</b>	<b>CONSULTATION AND SUBMISSIONS .....</b>	<b>25</b>
4.1.	Exhibition .....	25
4.1.1.	Public Authority submissions .....	25
4.1.2.	Public submissions .....	26
4.2.	Response to Submissions .....	27
4.3.	Supplementary Information .....	28
<b>5.</b>	<b>ASSESSMENT .....</b>	<b>29</b>
5.1	Section 79C(1) matters for consideration .....	29
5.2	Consistency with the Concept Plan Approval .....	29
5.3	Key assessment issues .....	30
5.4	Geotechnical / importation of fill .....	30
5.5	Traffic impacts .....	32
5.5.1	Construction traffic .....	33
5.5.2	Operational traffic .....	36
5.6	Noise impacts .....	42
5.6.1	Construction noise .....	44
5.6.2	Extended hours of construction work .....	46
5.6.3	Operational noise .....	47
5.6.4	Traffic noise .....	48
5.7	Stormwater and Flooding .....	48
5.7.1	Earthworks .....	48
5.7.2	Flooding .....	49
5.7.3	Existing Stormwater Infrastructure .....	49
5.7.4	Stormwater System Design .....	49
5.8	Air quality impacts .....	50
5.8.1	Construction Impacts .....	51
5.8.2	Operational Impacts .....	51
5.9	Built form and land uses .....	52
5.9.1	Urban Heat Island Effect .....	54
5.9.2	Visual impact .....	56
5.9.3	Freight village use .....	59
5.10	Subdivision .....	61
5.11	Biodiversity .....	63
5.12	Local Contributions .....	65
5.13	Contamination .....	66
5.14	Other issues .....	68
<b>6.</b>	<b>CONCLUSION .....</b>	<b>73</b>
<b>APPENDIX A</b>	<b>RELEVANT SUPPORTING INFORMATION .....</b>	<b>75</b>
<b>APPENDIX B</b>	<b>CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) .....</b>	<b>76</b>
<b>APPENDIX C</b>	<b>CONSISTENCY WITH THE CONCEPT PLAN .....</b>	<b>79</b>
<b>APPENDIX D</b>	<b>RECOMMENDED CONDITIONS OF CONSENT .....</b>	<b>90</b>

# 1. BACKGROUND

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## 1.1 Introduction

This report provides an assessment of a State significant development (SSD) application for warehousing, distribution facilities, and associated works at land located on the eastern side of Moorebank Avenue (known as Moorebank Precinct East) at Moorebank (SSD 7628), pursuant to Part 4, section 4.1 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act).

The proposal seeks approval for:

- earthworks including the importation of 600,000 cubic metres (m<sup>3</sup>) of fill
- 300,000 square metres (m<sup>2</sup>) gross floor area (GFA) of warehouse use
- 8,003 m<sup>2</sup> GFA freight village
- establishment of internal roads, connection to the surrounding road network / site access
- raising the level, and upgrading of, Moorebank Avenue, upgrade of Moorebank Avenue intersections and temporary diversion road
- ancillary works including stormwater / flooding drainage infrastructure, utilities, vegetation clearing, landscaping, earthworks, remediation and signage
- subdivision of the MPE site.

The application has been lodged by Tactical Group on behalf of SIMTA (Sydney Intermodal Terminal Alliance), as Qube Holdings Ltd (the Applicant). The site is located within the Liverpool local government area (LGA).

## 1.2 Moorebank Intermodal Terminal Precinct

The movement of freight throughout Sydney is currently dominated by road transport. The current projected growth in trade volumes are predicted to lead to an increase in freight movements interstate, intrastate and across the Sydney Greater Metropolitan Area. Going forward, this increase will present substantial challenges for Sydney's road network generally and the efficiency and ability to move freight. To meet this challenge, the Commonwealth and NSW Governments have made a commitment to deliver a new intermodal freight and logistics precinct, to significantly improve the mode-share for moving shipping-containers from road to rail and to increase freight handling capacity at Port Botany.

The Moorebank Intermodal Freight Precinct is located in Western Sydney, south of Liverpool, and is proposed to comprise an interstate, intrastate and port shuttle freight and logistic handling facility for the Sydney Metropolitan Area. The Precinct covers an area equal to 303 hectares and extends from the M5 South Western Motorway and the Defence Joint Logistics Unit (DJLU) site in the north and north east to the East Hills Rail Line in the south. It is divided into two sites known as Moorebank Precinct West (MPW) and Moorebank Precinct East (MPE) (**Figure 1**).

The Moorebank Intermodal Freight Precinct is owned in part by the Commonwealth Government (which owns the MPW site) and in part by SIMTA, a consortium of Qube and Aurizon (which owns the MPE site).

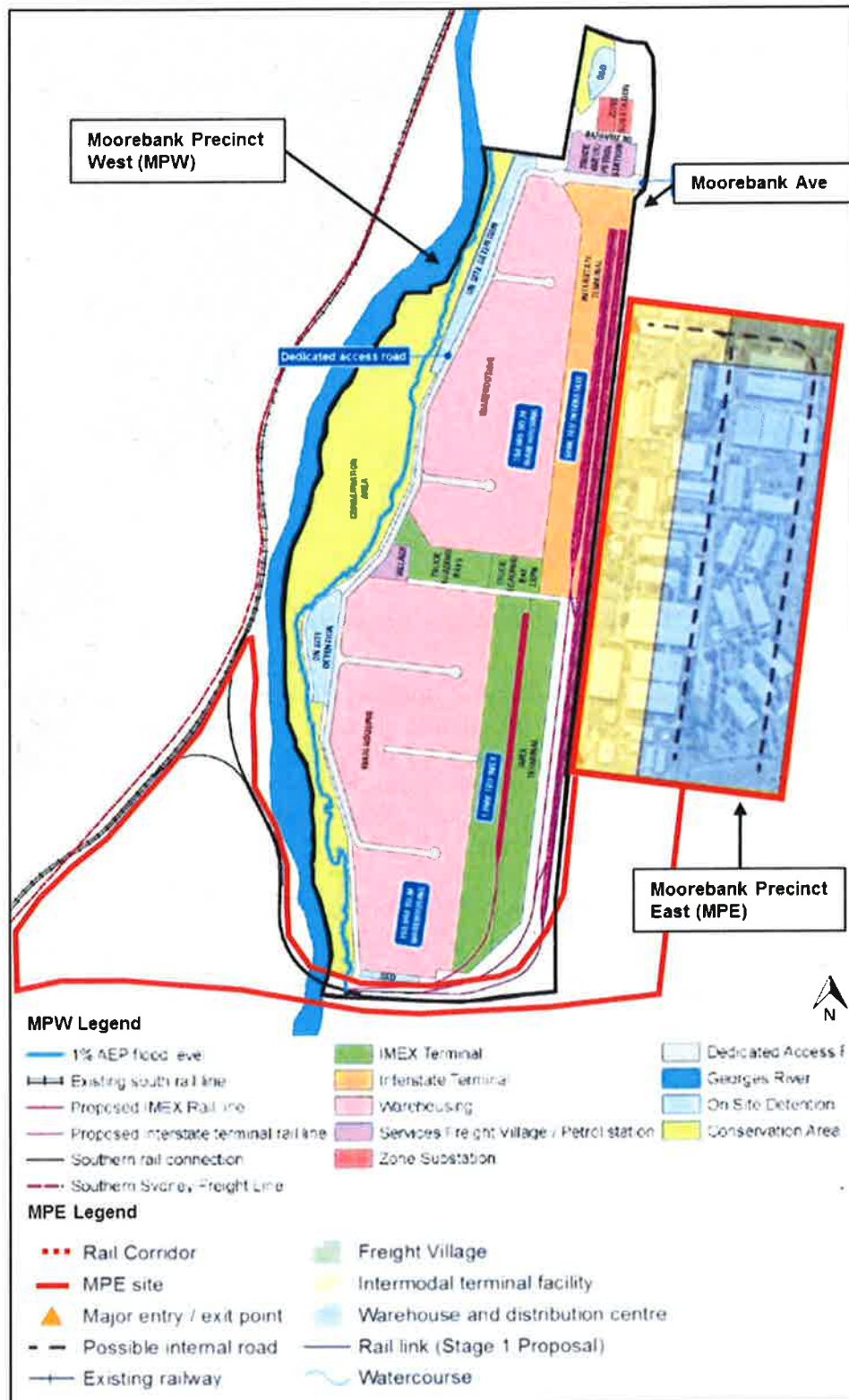
Two separate conceptual approvals for the creation of freight terminals on the MPW and MPE sites, including (refer to **Section 1.4.2** and **Figure 1**):

- A concept plan for MPE: an import/export Port shuttle freight terminal (MP 10\_0193)
- A concept approval for MPW: an import/export (IMEX) Port shuttle freight terminal and a separate interstate / intrastate freight terminal (MP SSD 5066)

At the time of the approvals outlined above, the sites were known respectively as the SIMTA site and the MIC (Moorebank Intermodal Company) site, MIC being an Australian Government owned company. On 5 December 2014, the Commonwealth Government and SIMTA announced their in-principle agreement to develop the Moorebank Precinct on a whole-precinct basis. The individual sites are now known as MPE and MPW respectively.



In accordance with the above announcement, SIMTA is seeking approval to build and operate the intermodal facility and warehousing on the MPW site in addition to the MPE site. In the event that approval is granted, SIMTA would lease the site from the Commonwealth Government and assume responsibility for the development for the project, including all future planning applications, construction, and ongoing operation and maintenance. The Commonwealth Government would oversee the development of the precinct, providing both funding and land for the project.

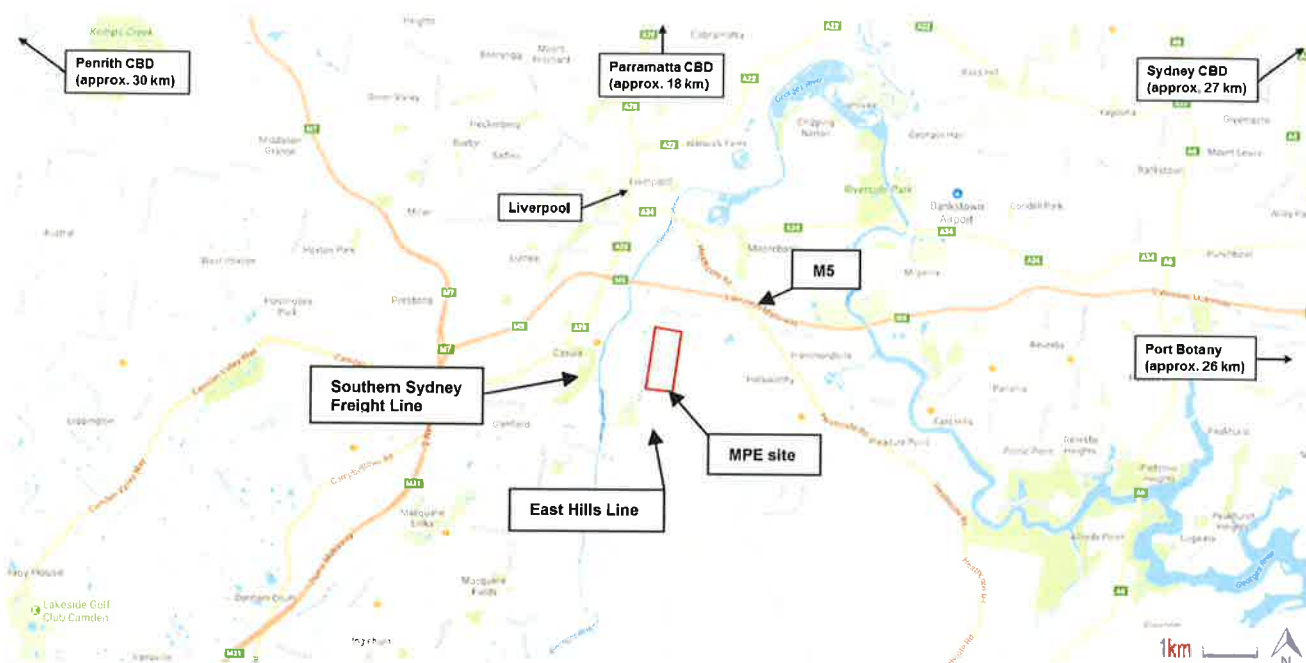


**Figure 1:** Moorebank Intermodal Precinct, including the approved MPW (outlined black) and MPE (outlined red) concept layouts (Base sources: SSD 5066 and MP 10\_0193)  
 Note: The MPE site boundary has been modified as shown in Figure 7

### 1.3 The MPE site and surroundings

The MPE site is located at Moorebank, approximately 27 kilometres (km) south-west of the Sydney Central Business District (CBD), 18 km south of Parramatta CBD, 30 km south-east of Penrith CBD and 2.5 km south of Liverpool City Centre.

Port Botany is located 26 km to the east of the site (refer to **Figure 2**).



**Figure 2:** Site location (outlined red) (Base source: Google Maps)

The revised MPE site (including the Stage 2 application, the approved Stage 1 intermodal, and the balance of the site) is generally rectangular in shape, being approximately 1.4 km long by 600 m wide, and covers an area equal to approximately 95 ha (Stage 2 covering approximately 67 ha). It is situated between Moorebank Avenue to the west, residual, densely vegetated, Commonwealth Land to the east and south (known as the 'Boot Land'), and the DJLU immediately north and north-east of the site.

The M5 South Western Motorway is located approximately 800 m north of the site and the Southern Sydney Freight Line is located approximately one kilometre west. East Hills Rail Line (EHRL) is approximately 600 m south of the site. The Holsworthy Military Reserve is located beyond the southern side of the EHRL.

Until recently, the site was operating as the Defence National Storage and Distribution Centre (DNSDC). However, this operation has been relocated to the neighbouring DJLU site to the north and north east and the buildings within the MPE site, which comprise warehouses of varying sizes, ages and shapes, are currently vacant.

The surrounding area is comprised of a number of different land-uses. To the north, beyond the DJLU, is the Yulong Business Park and a 200 ha industrial precinct, which supports a range of uses including freight and logistics, heavy and light manufacturing, office and business park developments.

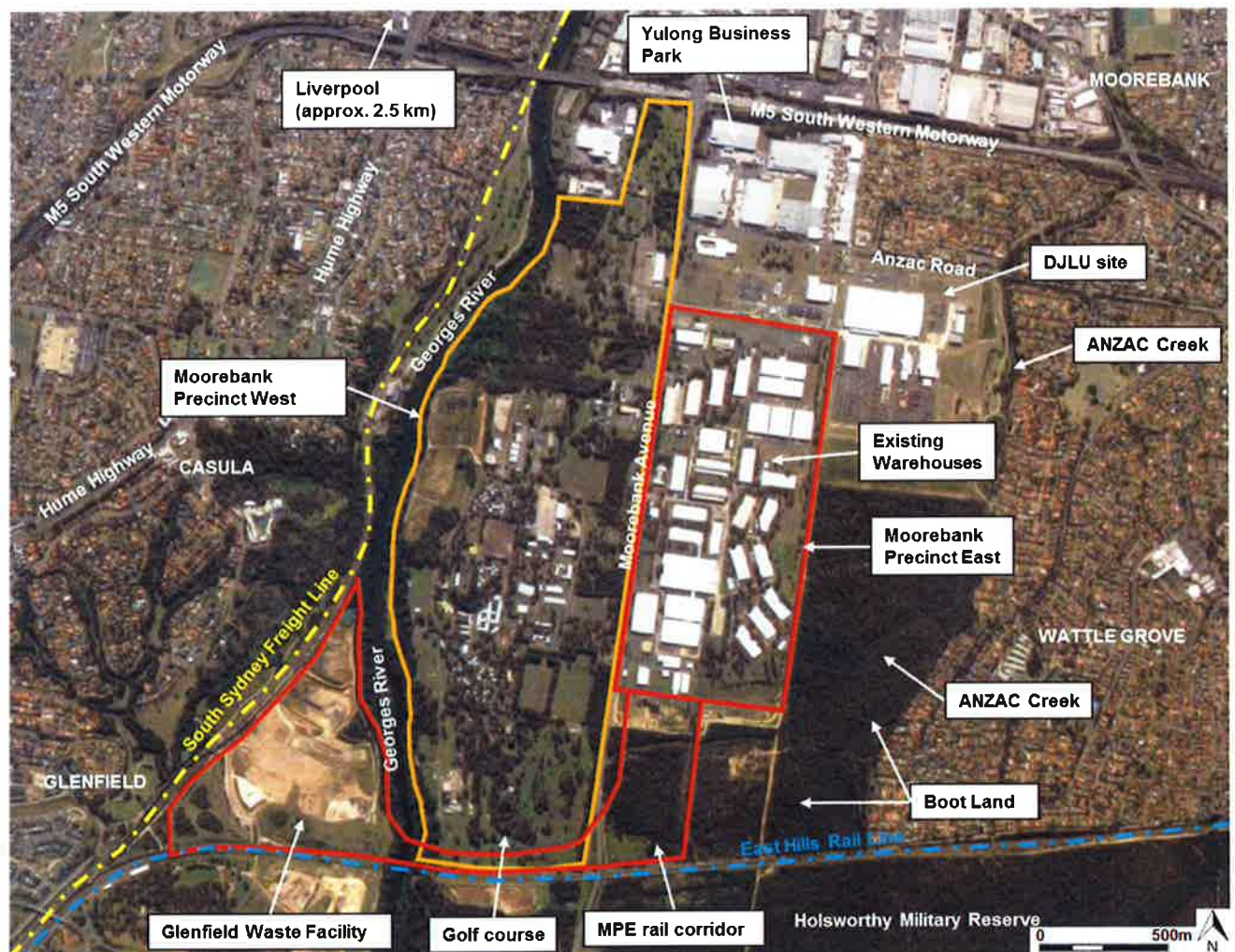
The closest residential properties to the site are located in:

- Wattle Grove to the north-east (approximately 360 m)
- Wattle Grove North to the north (approximately 500 m)
- Casula to the west (approximately 900 m)



- Glenfield to the south-west (approximately 1,600 m).

The site and its surroundings are shown at **Figure 3**.



**Figure 3:** Aerial view of the site and rail corridor (outlined red) and the surroundings (Base source: Google Maps)

Note: The MPE site boundary has been modified as shown in Figure 7

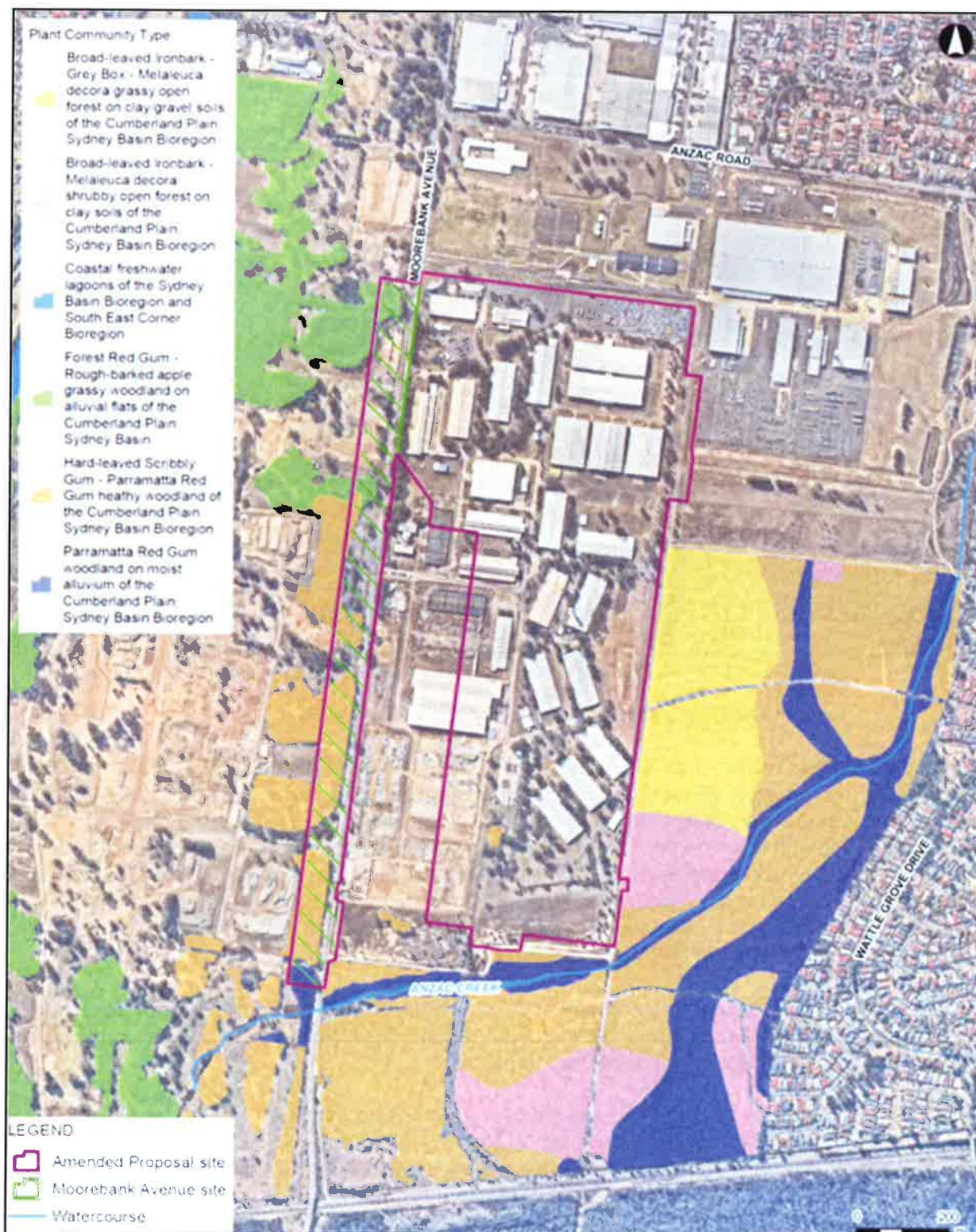
The site is located within the Georges River catchment and the Georges River is located approximately 450 m west of the site, along the western edge of the neighbouring MPW site. The Anzac Creek (ephemeral) originates within the MPW site from the cleared/disturbed lands of the former golf-course and flows north-east across Moorebank Avenue through the Boot Land, around the southern and eastern boundaries of the site and past Wattle Grove and Moorebank. In addition to these watercourses, the site contains formalised vegetated and concrete lined drainage channels and three outlets channels, which discharge into Anzac Creek via the bootland, into drainage infrastructure linked to Georges River via the MPW site and into Georges River via the DJLU site.

The site's topography is generally flat with a minor ridge running along the central portion of the site parallel to Moorebank Avenue. Despite the Anzac Creek running along its southern and eastern boundaries the site is not subject to flooding.

Vegetation is scattered across the site largely comprising isolated native trees and exotic grasses. Remnant native vegetation in a moderate to good condition exists on the adjoining Boot Land and MPW site. A small pocket of remnant vegetation also exists within the site (refer to **Figure 4**).



Four plant community types on the site are identified within the definition of threatened ecological communities under the *Threatened Species Conservation Act 1995* (TSC Act) and/or the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), which correspond to the threatened ecological communities: Castlereagh Scribbly Gum Woodland in the Sydney Basin bioregion, Cooks River - Castlereagh Ironbark Forest in the Sydney Basin bioregion, Castlereagh Swamp Woodland, and River-flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and Southeast Corner bioregions (refer to **Figure 4**). Threatened flora and fauna species have also been recorded within the site and within the neighbouring Boot Land to the east and south, as well the MPW site. Biodiversity impacts are discussed in detail in **Section 5**.



**Figure 4:** Location of on-site and neighbouring vegetation communities (Base source: Applicant's Updated BAR)

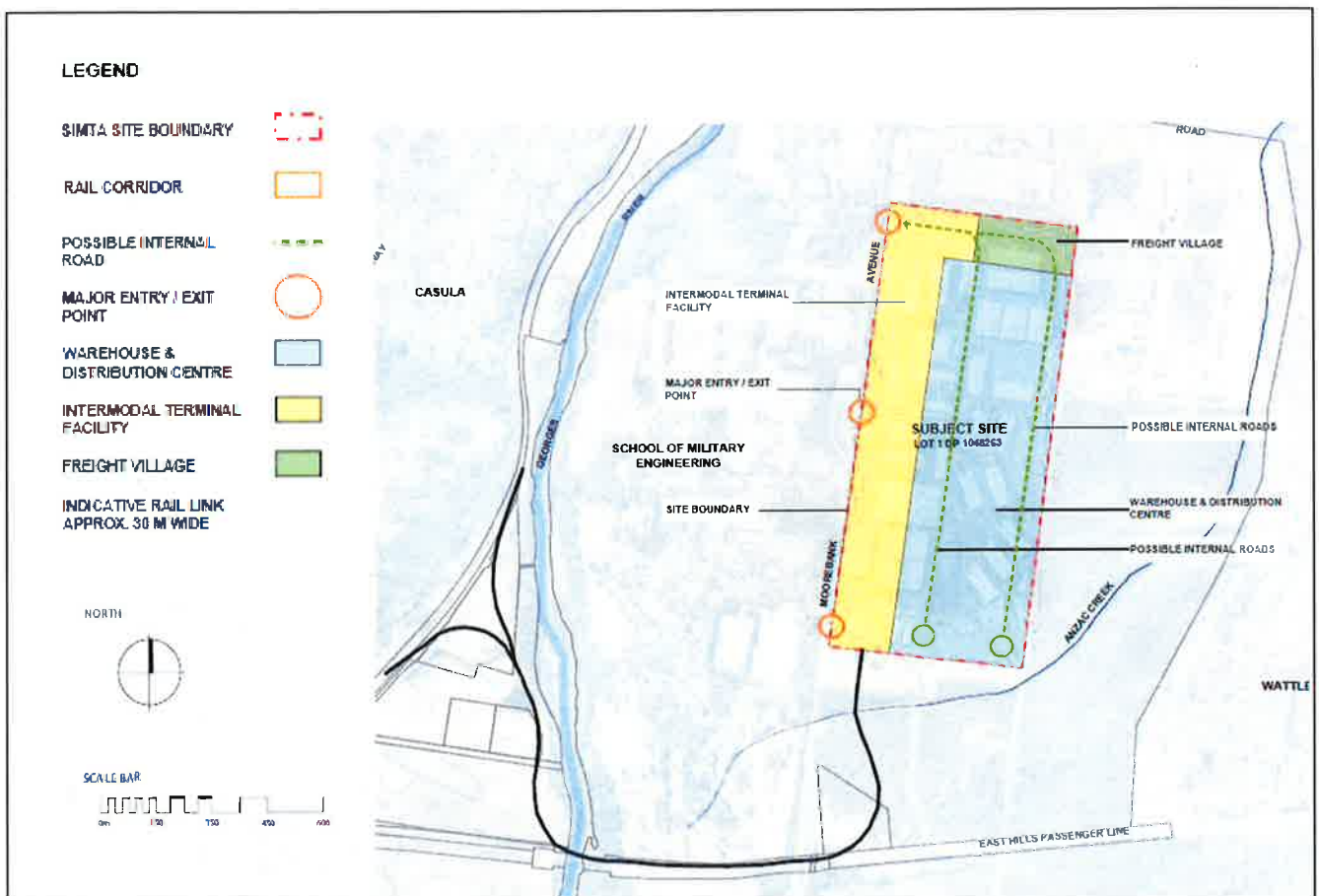
## 1.4 Relevant planning history

### 1.4.1 Approved Concept Plan

On 29 September 2014, the Planning Assessment Commission (the Commission), as delegate of the Minister for Planning, approved a Concept Plan (MP 10\_0193) for the use of the 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 support services)
- stormwater, landscaping, servicing and associated works.

On 12 December 2014, the Commission, as delegate of the Minister for Planning, approved a modification to the Concept Plan approval (MP 10\_0193 MOD 1), for revisions to the land description, Voluntary Planning Agreement and Statement of Commitments. The Concept Plan approval (as modified) are shown at **Figure 5**.



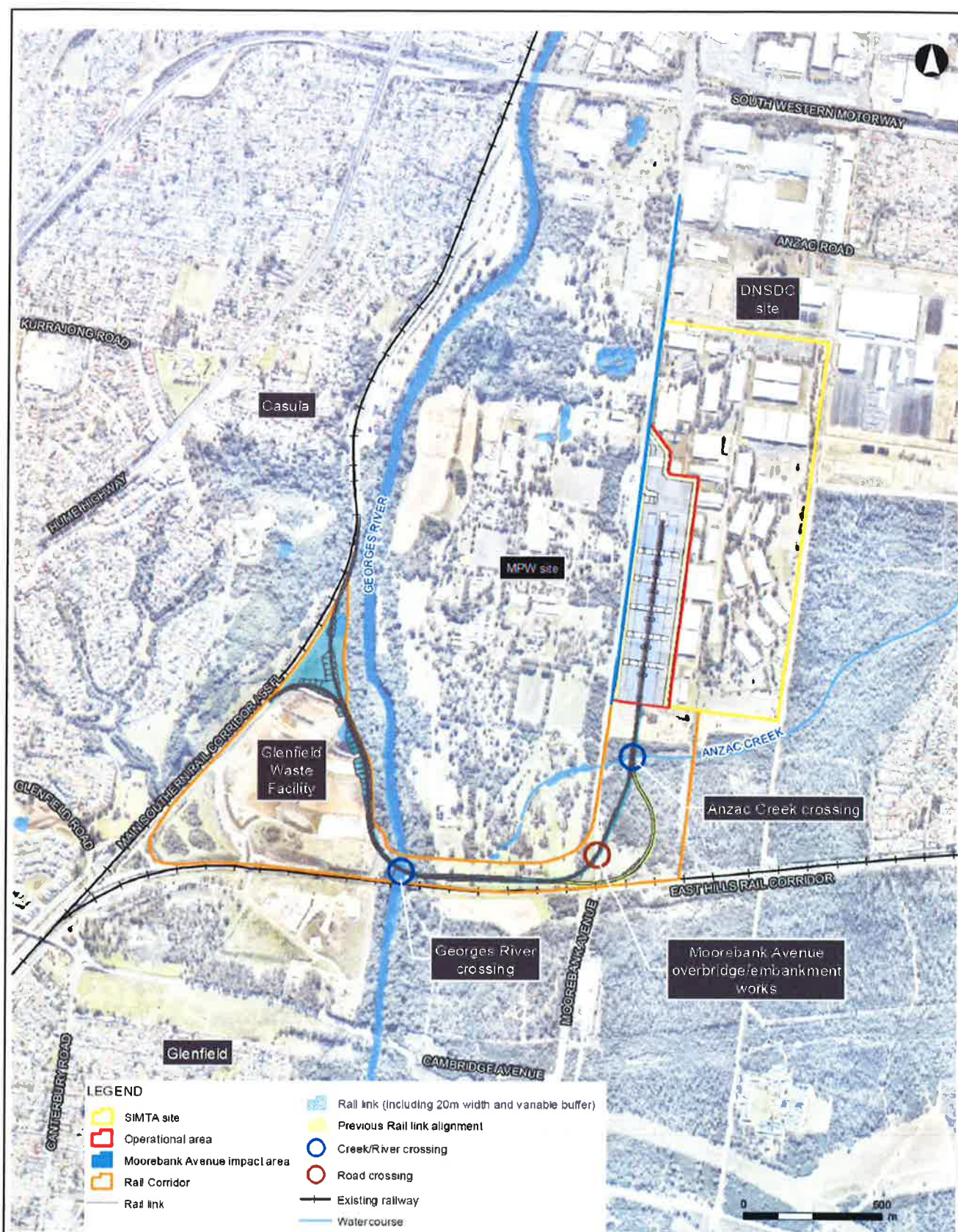
**Figure 5:** The MPE Approved Concept Plan layout (Source: MP 10\_0193)

On 12 December 2016, the Commission, as delegate of the Minister for Planning, approved a Stage 1 State significant development (SSD) application (SSD 6766) for the construction and operation of the following within the MPE site (**Figure 6**):

- an intermodal terminal facility operating 24 hours, 7 days a week handling a container freight volume of up to 250,000 twenty-foot equivalent units (containers) per annum (pa) including truck processing and loading area, rail loading and container storage areas, and an administration facility and associated carparking
- a rail link running adjacent to the EHRL, connecting the southern end of the site to the Southern Sydney Freight Line
- associated works including rail sidings, vegetation clearing, remediation and levelling works, drainage and utilities installation.



The Stage 1 approval is shown at **Figure 6** and a consolidated drawing with the Concept Plan is shown at **Figure 7**. Construction works have commenced on site in relation to the Stage 1 approval.



**Figure 6:** MPE Stage 1 Approval (including rail link) layout (Base source: SSD 6766 RtS)  
 Note: The site boundary is proposed to be modified as shown in Figure 7.

An appeal was lodged in the Land and Environment Court (LEC) by RAID Moorebank Inc challenging the independent PAC's approval of Stage 1 (SSD 6766). The proceedings were a merit appeal brought against the Minister and Qube Holdings Ltd. At the hearing, RAID did not contend that the development should be refused, only that it be approved subject to different conditions. Evidence from both RAID and Qube Holdings Ltd was filed in the LEC relating to biodiversity and noise associated with Stage 1. The appeal was heard by Commissioner Dixon on 25, 26 and 27 October 2017. The Commissioner reserved her decision at the conclusion of the hearing.

The LEC appeal does not preclude the Department's or the independent PACs consideration of the MPE Concept Plan approval modification or Stage 2 (SSD 7628), or PACs determination of the modification or Stage 2 (SSD 7628).

#### **1.4.2 Modification 2 of the MPE Concept Plan**

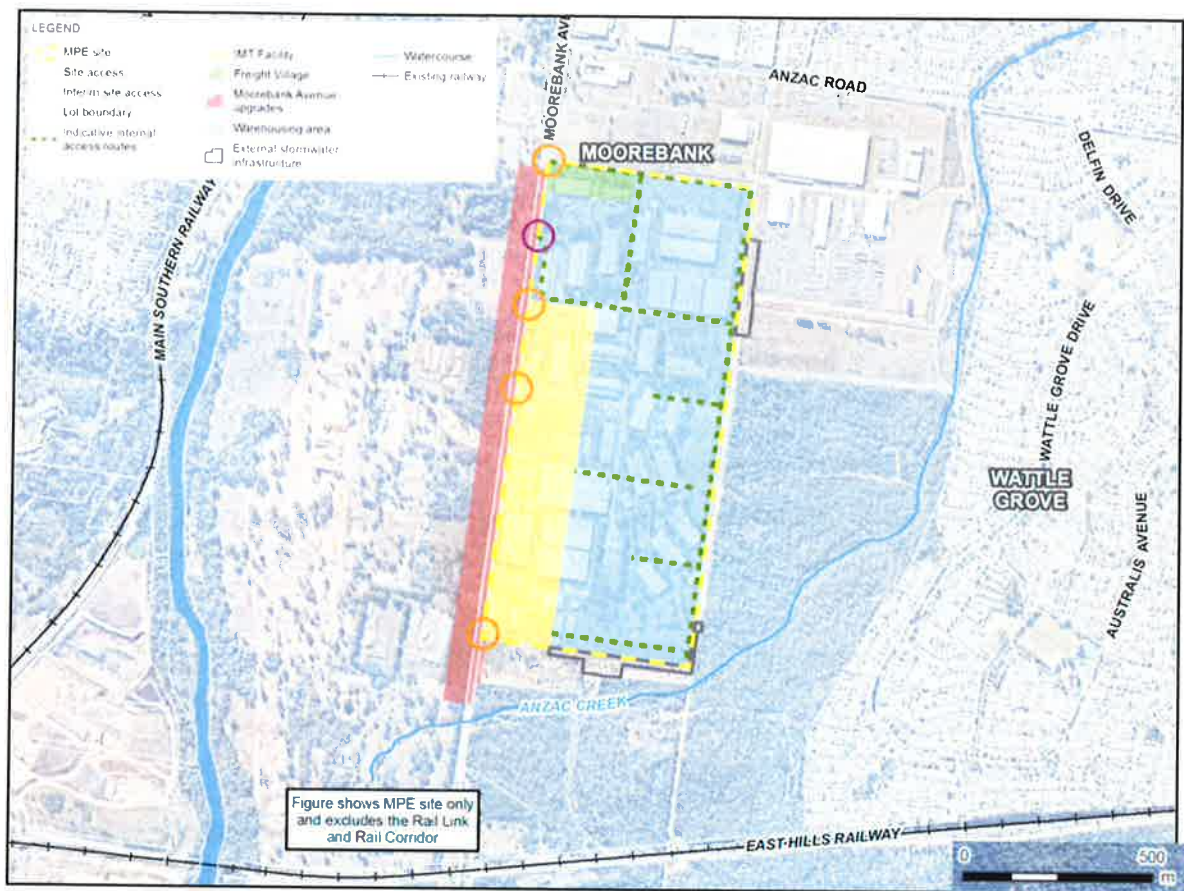
The Department has referred a section 75W modification application (MP 10\_0193 MOD 2) to amend the approved MPE Concept Plan (hereafter referred to as MOD 2) to the Commission. MOD 2 proposes the following alterations:

- increase of the MPE site area and amend the site boundary to include works on Moorebank Avenue and drainage works to the south and east of the site
- upgrade works to Moorebank Avenue from the northern to southern extent of the site
- interim access along Moorebank Avenue during upgrade works
- provision of interim site access for warehousing from Moorebank Avenue
- reconfiguration of internal road layouts and use of all internal roads by both light and heavy vehicles
- importation of approximately 600,000 m<sup>2</sup> of clean fill for bulk earthworks within the site and part of Moorebank Avenue
- revised warehousing and freight village locations and layouts
- revised freight village uses
- revision of the staging of the project
- subdivision of the site following development.

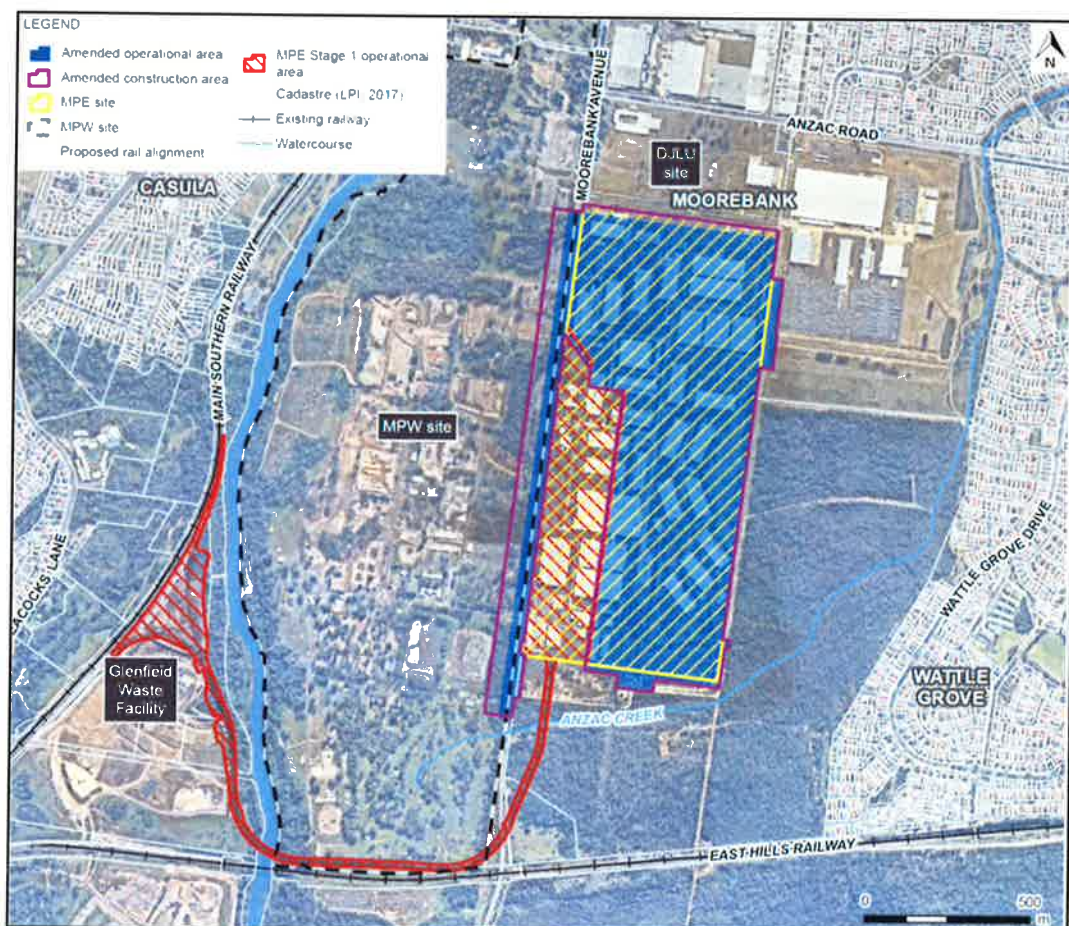
The current application for Stage 2 of MPE relies on the changes proposed by MOD 2. The Concept Plan (as proposed to be modified) is shown at **Figure 7** and a consolidated drawing with the Concept Plan is shown at **Figure 8**.

The Department considers it appropriate that the SSD application be assessed in accordance with the Department's final recommendations for MOD 2. The Department has considered the recommended conditions and Future Environmental Assessment Requirements (FEARs) of the modified Concept Plan in detail at **Section 5** and **Appendix C**.





**Figure 7:** The MPE Concept Plan layout MOD 2 (Source: MP 10\_0193 MOD 2)



**Figure 8:** MPE site Stage 1 and Concept Approval proposal overview (Source: Applicant's RtS)



### 1.4.3 Relevant planning history of neighbouring sites

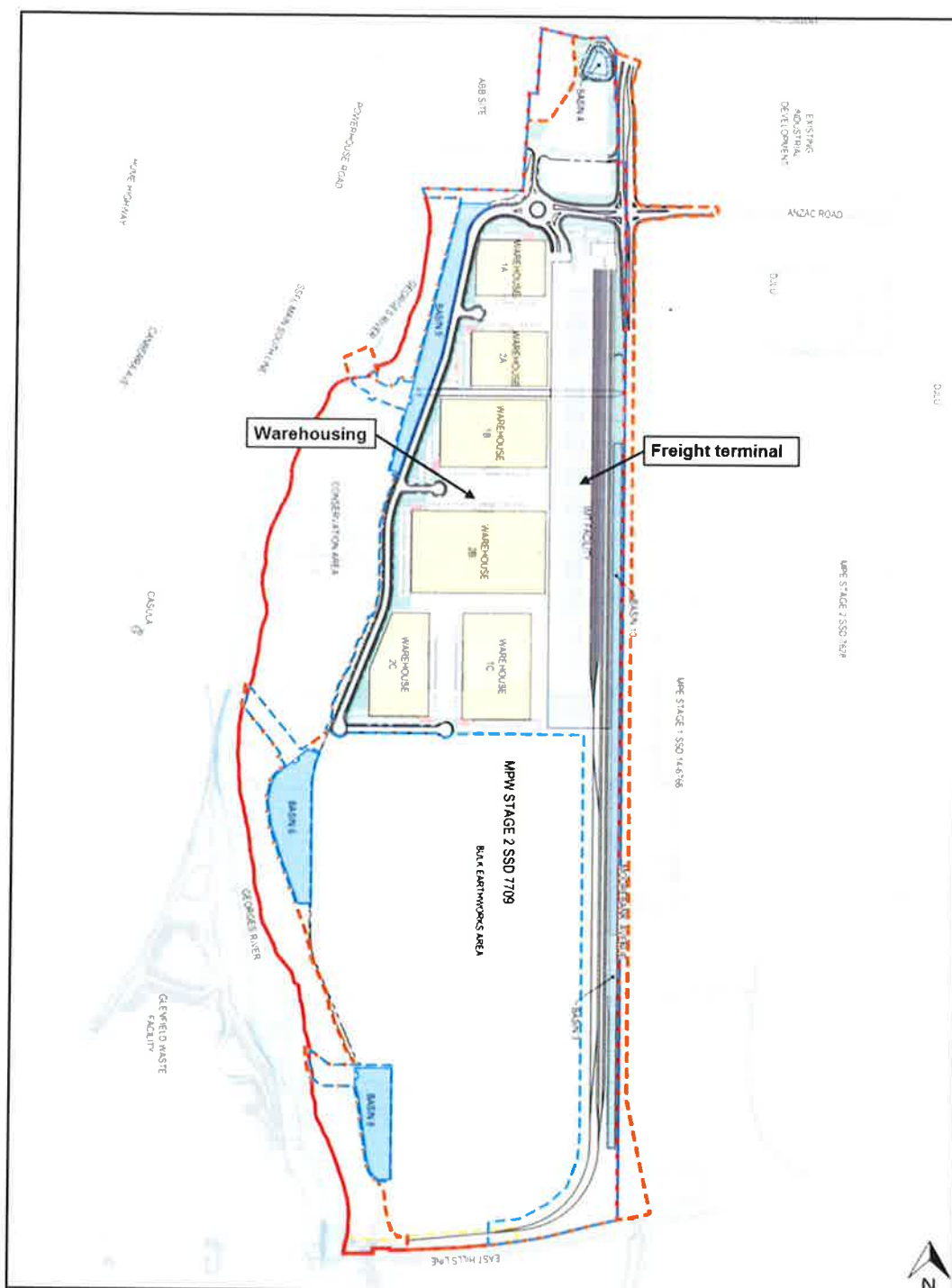
On 3 June 2016, Planning Assessment Commission (the Commission), as delegate of the Minister for Planning, approved the following applications (SSD 5066) relating to the neighbouring MPW site, which are relevant to the current application:

- **Concept Approval:** the use of the site as an intermodal facility, including a rail link to the Southern Sydney Freight Line, warehouse and distribution facilities, and associated works
- **Stage 1 Early Works:** 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 impact remediation works and the establishment of construction facilities and access including site security. Stage 1 works have begun on site.

The Department is also concurrently assessing the following applications relating to the MPW site:

- modification application (SSD 5066 MOD 1), for:
  - importation of 1,600,000 cubic metres (m<sup>3</sup>) of fill for bulk earthworks
  - amendment to the intermodal terminals, warehousing, freight village, parking, increase building heights and the number of onsite detention basins
  - reclassification of intermodal terminal to handle interstate, intrastate and Port shuttle freight and connectivity between MPW and MPE
  - consolidation of staging
  - inclusion of subdivision
  - expansion of the site boundary during construction to allow works on neighbouring sites.
- State significant development application (SSD 7709) for Stage 2 works for:
  - earthworks including the importation of 1,600,000 cubic metres (m<sup>3</sup>) of fill and vegetation clearing
  - intermodal terminal facility to accommodate 500,000 twenty-foot equivalent unit (TEU) container throughput capacity
  - rail link and internal road infrastructure
  - 215,000 square metres (m<sup>2</sup>) gross floor area (GFA) of warehouse use
  - freight village including 800 m<sup>2</sup> GFA retail use
  - upgrade of Moorebank Avenue/Anzac Road intersection
  - ancillary works including utilities installation/connection, signage and landscaping

The Stage 2 assessment report and modification to concept for MPW is expected be completed and referred to the PAC in early 2018. The proposed MPW development is shown at **Figure 9**.



## 2. DESCRIPTION OF PROPOSAL

### 2.1 Description of proposal

The key components and features of the proposal (as refined by the Response to Submissions) are provided in **Table 1** and are shown in **Figure 10**.

**Table 1:** Key components of the SSD application

Aspect	Description
Construction Activities	<ul style="list-style-type: none"> <li>• Importation of 600,000 m<sup>3</sup> of fill (depths ranging from 1.5 to 3 m) for bulk earthworks, stockpiling/placement, erosion and sediment controls and drainage</li> <li>• construction site access points, compounds, fencing/hoardings and car parking, roads, diversion road, hardstands, utility relocation/installation</li> <li>• concrete batching plant, materials crushing,</li> <li>• demolition of existing structures, clearing of existing vegetation</li> <li>• signals, lighting, signage and remediation (if required).</li> </ul>
Warehousing	<ul style="list-style-type: none"> <li>• Construction and fit-out of eight warehouses (and ancillary offices) comprising: <ul style="list-style-type: none"> <li>○ 300,000 m<sup>2</sup> GFA</li> <li>○ buildings ranging in size from 20,350 m<sup>2</sup> to 57,800 m<sup>2</sup></li> <li>○ maximum building height 21 m</li> <li>○ ancillary parking.</li> </ul> </li> </ul>
Freight Village	<ul style="list-style-type: none"> <li>• Construction and fit-out of a freight village, containing one light industrial facility, two retail buildings and two (three and four storey) commercial buildings, comprising 8,003 m<sup>2</sup> GFA including: <ul style="list-style-type: none"> <li>○ 5,703 m<sup>2</sup> GFA commercial use</li> <li>○ 1,220 m<sup>2</sup> GFA retail use</li> <li>○ 1,080 m<sup>2</sup> GFA light industrial use</li> <li>○ maximum building height 15 m.</li> </ul> </li> </ul>
Access and circulation	<ul style="list-style-type: none"> <li>• A signalised site access located north of the approved entrance to MPE Stage 1</li> <li>• traffic circulation, including: <ul style="list-style-type: none"> <li>○ two internal (north/south and east/west) roads</li> <li>○ three service roads providing access to loading docks</li> <li>○ three transfer roads allowing for freight transfer between the MPE Stage 1 freight terminal and the warehouses.</li> </ul> </li> </ul>
Car Parking	<ul style="list-style-type: none"> <li>• A total of 1442 car parking spaces, comprising: <ul style="list-style-type: none"> <li>○ 1,212 warehouse car parking spaces</li> <li>○ 230 freight village car parking spaces, including basement parking.</li> </ul> </li> </ul>
Moorebank Avenue upgrade	<ul style="list-style-type: none"> <li>• Upgrade of approximately 1.5 km of Moorebank Avenue, including: <ul style="list-style-type: none"> <li>○ increase of the road height (vertical road alignment) in accordance with the importation of fill across the site</li> <li>○ modifications of lane configuration including road widening</li> <li>○ signalisation and works to intersections</li> <li>○ kerbs, gutters and sealed shoulder</li> <li>○ shared pedestrian and cycle path</li> <li>○ bus stops (in consultation with TfNSW)</li> <li>○ temporary diversion road within MPW site to allow Moorebank Avenue construction</li> </ul> </li> <li>• intersection upgrades, including: <ul style="list-style-type: none"> <li>○ Moorebank Avenue / MPE Stage 2</li> <li>○ Moorebank Avenue / MPE Stage 1 northern access</li> <li>○ Moorebank Avenue / MPE Stage 1 central access</li> <li>○ Moorebank Avenue / MPE Stage 1 southern emergency access.</li> </ul> </li> </ul>
Hours of Operation and Construction	<ul style="list-style-type: none"> <li>• The following hours of operation: <ul style="list-style-type: none"> <li>○ warehousing: 24 hours per day, seven days per week</li> <li>○ freight village: 7 am to 6 pm, five to seven days per week.</li> </ul> </li> </ul>
Hours of Construction	<ul style="list-style-type: none"> <li>• Predicted construction program of 24 to 36 months</li> <li>• the following standard hours of construction: <ul style="list-style-type: none"> <li>○ 7 am to 5 pm Monday to Friday</li> <li>○ 8 am to 1 pm Saturday</li> </ul> </li> </ul>

Aspect	Description
	<ul style="list-style-type: none"> <li>○ no works on Sunday or Public Holidays</li> <li>• out of hours construction work for bulk earthwork activities and Moorebank Avenue works <ul style="list-style-type: none"> <li>○ 6 am to 10 pm Monday to Friday</li> <li>○ 7 am to 6 pm Saturday.</li> </ul> </li> </ul>
Landscaping / Drainage	<ul style="list-style-type: none"> <li>• Stormwater, drainage and flooding infrastructure including: <ul style="list-style-type: none"> <li>○ construction of OSDs, outlet channels and associated drainage infrastructure</li> <li>○ stormwater pits, pipes and drains</li> </ul> </li> <li>• landscaping including tree, shrub and turf planting</li> <li>• lighting throughout the entire site</li> <li>• palisade and chain-link security fencing</li> <li>• use of part of the Boot Land (Lot 4 DP 1197707)*</li> </ul> <p>* The application originally proposed use of part of the DJLU (Lot 3002, DP 1125930) for stormwater connection, but this was subsequently withdrawn.</p>
Signage	<ul style="list-style-type: none"> <li>• Warehousing signage zones</li> <li>• freight village signage zones.</li> </ul>
Utilities	<ul style="list-style-type: none"> <li>• Installation and connection to utilities and services (as required).</li> </ul>
Subdivision	<ul style="list-style-type: none"> <li>• Subdivision of the MPE site into four warehouse lots and one intermodal lot.</li> </ul>

The SSD application has a Capital Investment Value (CIV) of \$454,020,000 and is expected to generate 200 construction jobs and 1,400 operational jobs once fully developed.

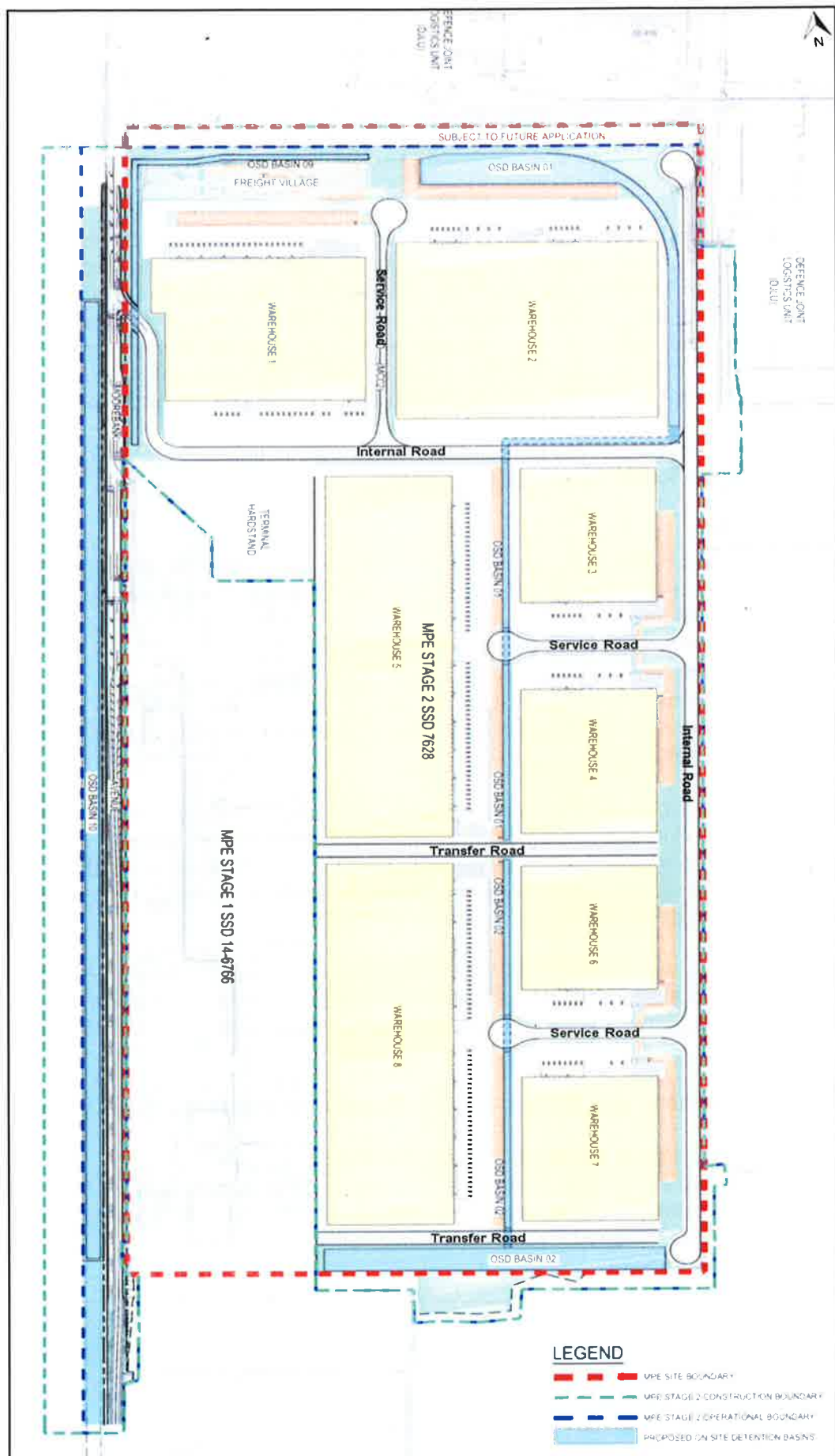


Figure 10: Proposed site layout and access (Base source: Applicant's RtS)

## 2.2 Project need and justification

### 2.2.1 NSW State Priorities

In 2015 the NSW Premier announced 30 State Priorities, including 12 Premier's Priorities, to foster development, growth and enrichment of NSW. The development of the Moorebank Precinct to manage freight at Port Botany is identified as a key local infrastructure project under the Delivering Infrastructure Priority.

The State Priorities are also supported by *Rebuilding NSW – State Infrastructure Strategy 2014*, which indicates the Government will invest approximately \$20 billion in NSW and identifies the Moorebank Precinct as an International Gateway. It confirms the majority of containers transported to and from Port Botany have their origin or destination in western Sydney. This pattern will intensify over time, as most new industrial land, including distribution centres and warehousing, will be located in south west Sydney. It makes a key recommendation that projects that support freight movements from Port Botany to the Moorebank Precinct should be prioritised.

The MPE project is an integral component of the Moorebank Precinct and is therefore consistent with the State Priorities' vision for NSW and western Sydney.

### A Plan for Growing Sydney

*A Plan for Growing Sydney* (the Plan) sets out the NSW Government's vision for Sydney to be 'a strong global city, a great place to live' and includes a number of supporting goals and directions. The Plan's key goals are to provide a:

- competitive economy with world-class services and transport
- city of housing choice with homes that meet our needs and lifestyle
- great place to live with communities that are strong, healthy and well connected
- sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources.

The Plan aims to accelerate urban renewal across Sydney and encourages growth in both infill and greenfield areas to stimulate balanced growth throughout Sydney. It also aims to make the best use of transport and infrastructure, making Sydney more sustainable and efficient. In planning for growth, the Plan focuses urban renewal in Strategic Centres, areas close to transport hubs and corridors and advocates efficient use of land in infill areas.

The Liverpool LGA is located within the South West Subregion and the Moorebank Precinct is identified as the location for a strategically important intermodal terminal facility (**Figure 11**). The Plan seeks to protect land to serve Sydney's future transport needs, including intermodal sites and associated corridors.

There are a number of Directions and Actions that are of particular relevance to the proposal, including:

*Direction 1.5 Enhance capacity at Sydney's gateways and freight networks*

*Action 1.5 Develop and implement a strategy for the Sydney Airport and Port Botany Precincts to support their operation, taking into account land uses and the proposed road transport investments*

*Direction 1.11 Deliver infrastructure*

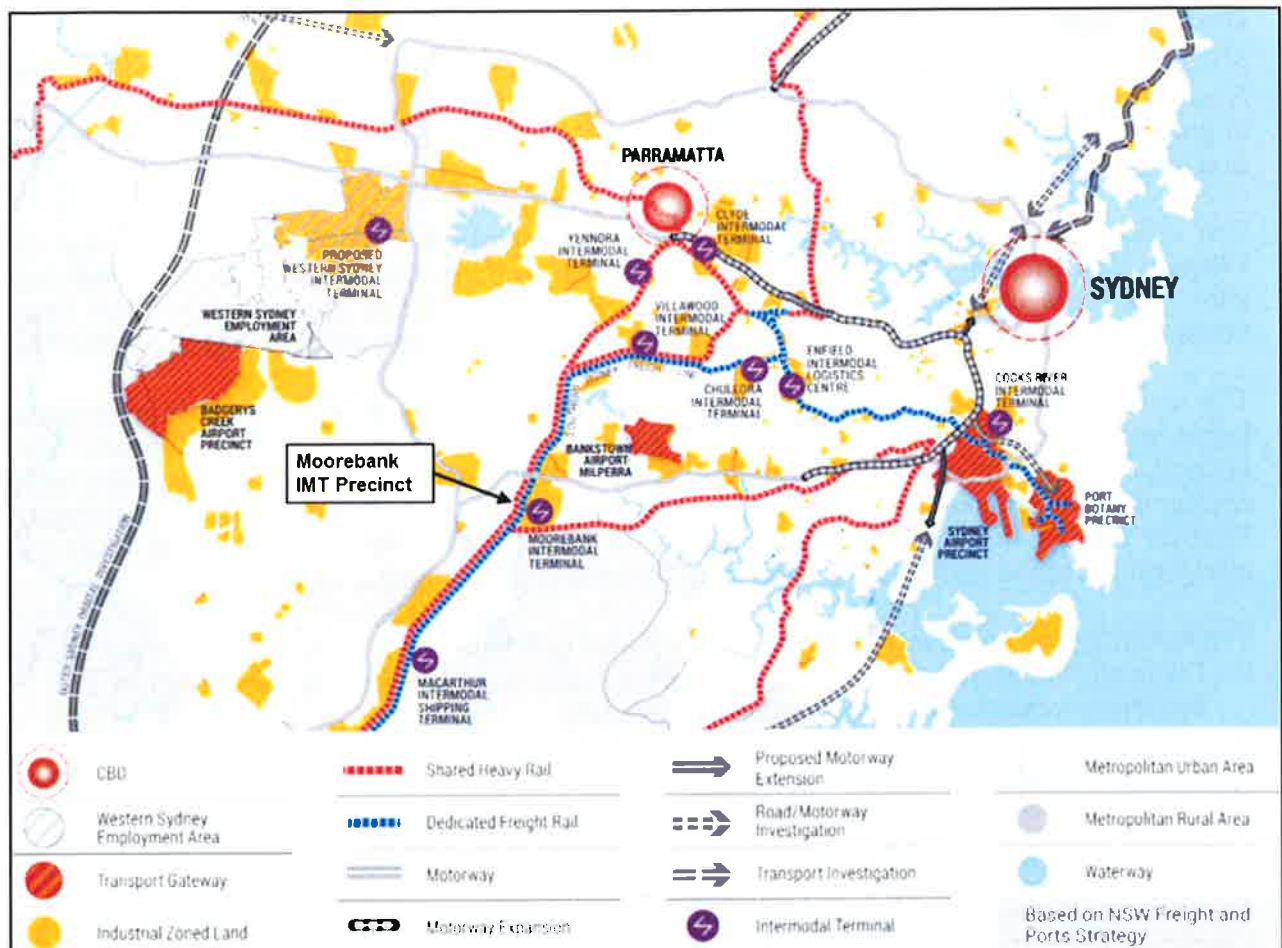
*Action 1.11.1 Preserve future transport and road corridors to support future growth*

The proposed development supports the strategic goals, directions and actions of the Plan by:

- intrinsically supporting the operation and use of the MPE intermodal terminal (as approved under SSD 6766) and therefore facilitating the intermodal terminal's contribution to:
  - significantly boosting the capacity of Sydney's global gateways and specifically relieving pressure on Port Botany, which is tightly constrained and has limited room to expand
  - allowing Sydney's transport networks to grow in line with the city's population and needs
  - improving the productivity of the overall freight and logistics network



- minimising road congestion by increasing the percentage of freight moved by rail within the metropolitan area
- business growth, success and confidence and encourage local, national and international investment.



**Figure 11:** Existing and proposed Sydney intermodal terminals (Base Source: *A Plan for Growing Sydney* 2014)

### Draft Greater Sydney Region Plan

The Greater Sydney Commission's (GSC) role is to lead metropolitan planning for Greater Sydney Region, promoting orderly development in line with infrastructure delivery. The GSC has prepared the *Draft Greater Sydney Region Plan* (Regional Plan) which sets out a 40-year vision for the region.

The draft Regional Plan is currently on public exhibition from 22 October to 15 December 2017. Once the Plan is finalised it is anticipated that the Region Plan will replace *A Plan for Growing Sydney*.

The draft Regional Plan is built on the vision to establish a global metropolis of three cities – *Western City*, the *Central River City*, and the *Eastern Harbour City*, enabling the majority of people to commute to their nearest city within 30 minutes.

The Liverpool LGA and the Moorebank Precinct is located within the Western City District. The District is known historically for traditional manufacturing, transport, distribution, warehousing and intermodal functions. These types of land uses underpin the success of trade growth and support objective 16 of the draft Regional Plan, which seeks to secure a competitive and efficient freight and logistics network.

A key strategy is to manage the interfaces of industrial areas, trade gateways and intermodal facilities such as the Moorebank Precinct. By protecting industrial lands for port intermodal and logistics uses from encroachment of incompatible land uses that may adversely affect industry viability to facilitate ongoing operation and growth.

### **Draft Western City District Plan**

The GSC has prepared draft District Plans to guide the implementation and 40-year vision of the Regional Plan, and to connect local planning with the longer-term metropolitan planning for Greater Sydney Region. The Plans set overall Planning Priorities including liveability, productivity and sustainability.

The GSC has divided the Greater Sydney Region into five districts including Central City, Western City, Eastern City, North and South Districts, and the draft District Plans are intended to inform local council planning and influence the decisions of State agencies. The draft District Plans are on public exhibition until 15 December 2017, concurrently with the draft Regional Plan.

The Moorebank Precinct is located within the Western City District. The proposed development supports the Planning Priorities by providing for warehousing and associated infrastructure in support of a new intermodal termination within a strategically important location identified as appropriate for this use, and having acceptable impacts on residential amenity (as discussed at **Section 5**). The proposal includes appropriate upgrades to Moorebank Avenue to facilitate adequate access to and from the intermodal terminal (as discussed at **Section 5**).

The following *draft Western City District Plan* Planning Priorities are of relevance to the proposal:

- Planning Priority W7 *'Establishing the land use and transport infrastructure to deliver a liveable, productive and sustainable Western City'*.

In giving effect to the draft Region Plan, Planning Priority W7 delivers on *Objective 16: Freight and logistics network is competitive and efficient*; and *Objective 17: Regional transport is integrated with land use and the corresponding strategies and actions*.

The intermodal terminal will play an integral part in strengthening freight movements between the Western District, the Port and interstate/intrastate boosting the economic potential of the Greater Sydney Region.

The Department referred the proposal to the office of the Government Architect of NSW (GANSW), which reviewed the proposal against the Planning Priorities. GANSW identified key relevant Planning Priorities as including:

- Planning Priority W12 *'Protecting and improving the health and enjoyment of the District's waterways'*
- Planning Priority W14 *'Protecting and enhancing bushland and biodiversity'*
- Planning Priority W15 *'Increasing urban tree canopy cover and delivering Green Grid connections'*
- Planning Priority W16 *'Protecting and enhancing scenic and cultural landscapes'*
- Planning Priority W17 *'Better managing rural areas'*
- Planning Priority W18 *'Delivering high quality open space'*
- Planning Priority W19 *'Reducing carbon emissions and managing energy, water and waste efficiently'*
- Planning Priority W20 *'Adapting to the impacts of urban and natural hazards and climate change'*

As part of the 203 hectare Moorebank Intermodal Precinct, and with over 95 hectares proposed to be developed, the overall MPE intermodal development has potential to impact on the urban heat island effect within the site for employees, and within the Moorebank area and Liverpool region more widely. The Department has considered the urban heat island effect in detail (see **Section 5.9.1**), and considers that revisions to the Applicant's landscape plans to ensure delivery



of increased canopy tree plantings and the recommended conditions regarding material use and water sensitive urban design would ensure that the proposal would minimise heat effects and promote cooling the site at a level appropriate to an industrial development.

The draft District Plan suggests that retaining more water in the landscape and maximising opportunities for tree planting, will help mitigate the urban heat island effect, as well as manage the flow of stormwater. This will help make communities more resilient, by reducing the impact of heat waves and extreme heat and support liveability. The Department has reviewed the water and landscape (**Sections 5.7 and 5.9**) aspects of the proposal, and considers that the proposal would respond to these requirements through a combination of revisions to the Applicant's design and the recommended amendments set out in the Department's draft recommended instrument.

### **Greener Places and the Five Million Trees Initiative**

The Department has developed a series of green initiatives to promote green space for recreation and improving the local environment. These initiatives include the development of Greener Places, by GANSW, and a commitment to planting an extra five million trees across Sydney, predominately in the west and south-west suburbs.

The upcoming Greener Places policy aims to create a more liveable and sustainable urban environment by improving community access to recreation and exercise, supporting walking and cycling connections, and improving the resilience of urban areas. The policy will outline principles for coordinating population growth with an increase in green spaces to combat the effect of climate change while also providing space for local flora and fauna. The Department has closely considered the impacts of landscaping (**Section 5.9**), water sensitive urban design (**Section 5.7.4**) and biodiversity (**Section 5.11**), and has provided recommended conditions that would ensure that the proposal better responds to the general policy aims of Greener Places.

In November 2017, the Minister for Planning announced a new target has been set to more than double tree canopy cover across Sydney, from an existing 16.8 per cent to 40 per cent by 2030, by planting more trees along streets, in new and existing parks and open spaces, schools, and front and backyards of homes. This 20 year target aims to increase urban tree cover to provide shade and shelter, improve air quality, improve visual amenity, and cool local environments. The trees will be planted across Sydney but will have a particular focus on west and south-west suburbs, including in Liverpool LGA.

The Department considers that it is important that the proposal deliver additional tree cover throughout the site, particularly in order to achieve reduced heat load. The Department is satisfied that an acceptable level of tree cover will be achieved in accordance with the recommendations in relation to built form and land uses (**Section 5.9**). In addition to the reasons outlined above, increased landscaping of the site will also facilitate improved visual setting (**Section 5.9.2**).

### **NSW Freight and Ports Strategy 2013**

The aim of the *NSW Freight and Ports Strategy 2013* (Freight Strategy) is to provide a transport network that allows the efficient flow of goods to their market and support a competitive and productive NSW economy.

The Freight Strategy confirms, at present, 85 per cent (%) of import and export containers originate or are destined for locations within a 40 km radius of Port Botany and approximately 14% of container movements occur by rail. The Freight Strategy indicates freight movement will double to 794 million tonnes by 2031 and it is important, and there is an opportunity, to shift more freight from road based transport to rail to help address this challenge.

Strategic Action 2E identifies metropolitan intermodal terminals are essential to increase rail share mode and manage the rapidly growing import container trade and interstate freight. These important facilities function like inland satellite ports and reduce congestion from Port Botany and

Sydney Airport. Task 2E-1 seeks to foster intermodal terminals in metropolitan areas that create network capacity, including the development of the new facilities within the Moorebank Precinct. The Freight Strategy includes a Moorebank Precinct Case Study, which supports the appropriate development of the Precinct.

The proposal is consistent with the Freight Strategy as it provides for new warehousing and associated infrastructure to support a new intermodal terminal that would significantly increase network capacity, improve freight handling and logistics, reduce road congestion, and will be connected to major rail and road freight corridors including the SSFL, M5 South-Western Motorway and M7 Westlink. As discussed at **Section 5**, the impacts associated with the development of the site for warehousing and associated infrastructure can be managed and/or mitigated.

### **NSW Long Term Transport Masterplan 2012**

The *NSW Long Term Transport Masterplan 2012* (LTTM) is a 20-year plan aimed at improving the transport system in NSW. The plan sets up the framework by which the NSW Government can deliver a modern and integrated transport system and advocates improvements to freight efficiency and productivity through major investments in road and rail freight networks, ports, airports and intermodal terminals.

The LTTM seeks to increase the share of freight that is transported by rail by developing efficient and competitive intermodal terminals within metropolitan Sydney on dedicated freight lines to significantly increase rail capacity, providing a more competitive rail alternative to road freight. The LTTM identifies the Moorebank Precinct as the location for a new facility for south-west Sydney.

The proposal is consistent with the LTTM as it provides for a new modern warehousing and infrastructure in support of an intermodal terminal that would significantly increase local, intrastate, interstate and port rail freight capacity to provide a viable alternative to road transport and improve the freight logistics chain.

### **Draft Future Transport 2056**

In 2017, the NSW Government released a draft of its update to the LTTM, *Future Transport 2056*. The draft plan provides a vision of how transport can support growth and the economy in New South Wales over the next 40 years.

The revised plan focusses more integrated solutions rather than focussing on the transport network in terms of individual modes of transport. The revised plan will seek to harness the rapid advancement of technology and innovation across the transport system to boost the economic performance of NSW.

In order to continue to support and enhance intermodal developments in the state, the revised plan will seek to reduce network complexity by overlaying the physical network with digital infrastructure which is intended to increase automation technology to support intermodal terminals and improve the productivity of the freight logistics chain.

*Future Transport 2056* is made up of the Draft Future Transport Strategy, the Draft Regional NSW Services and Infrastructure Plan and the Draft Greater Sydney Services and Infrastructure Plan. The Draft Greater Sydney Services and Infrastructure Plan proposes a number of Initiatives that seek to address capacity constraints at Port Botany and the South East through upgraded train and road links. Initiatives for Investigation over the next 10 years including supporting freight delivery with upgrades to the Southern Sydney Freight Line, as well as protection of future transport corridors to support the affordable delivery of passenger and freight infrastructure in the future. Improvements to the Southern Sydney Freight Line to be investigated would support the growth in containers being moved by rail on this corridor expected from

Moorebank Intermodal Terminal by better separating freight and passenger trains in the south-west of Greater Sydney.

The proposed Initiatives would support the ongoing growth of the development. Initiatives identified under the Strategy plan for 20 years and beyond include supporting the efficient movement of road freight from Moorebank Intermodal Terminal by extending the M5 to the Outer Sydney Orbital.

### **NSW Government State Infrastructure Strategy**

In June 2014, the Government announced Rebuilding NSW, which is a plan to invest \$20 billion in new productive infrastructure, create more than 100,000 jobs, deliver downward pressure on electricity prices for consumers, and boost the economy by almost \$300 billion (over 20 years).

As part of Rebuilding NSW, the State Infrastructure Strategy (SIS) highlights the importance of sustaining productivity growth in our major centres and our regional communities, as well as supporting population growth toward almost 6 million people in Sydney and more than 9 million people in NSW. The SIS investment recommends delivering better access to Port Botany and the Sydney Airport and recommends access projects that support rail freight from Port Botany to the Moorebank Precinct, and the reconfiguration of the roads around the precinct.

The proposal forms part of the Moorebank Intermodal Freight Precinct which will in part improve freight access to Port Botany and Sydney Airport and supports the Moorebank East intermodal terminal. The proposal therefore supports the above recommendations of the SIS.

## **3. STATUTORY CONTEXT**

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### **3.1. State Significant Development**

The proposal is SSD under Section 89C of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as the development has a CIV in excess of \$50 million and is for the purpose of warehouses and distribution centres (including container storage facilities), which is identified as a SSD site under clause 12 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*. The Minister for Planning is therefore the consent authority for the proposed development.

### **3.2. Consent Authority**

In accordance with the then Minister for Planning delegation to determine SSD applications, dated 14 September 2011 and effective from 1 October 2011, the Planning Assessment Commission (Commission) may determine this application as:

- Council has made an objection
- a political disclosure statement has not been made
- there are more than 25 public submissions in the nature of objections.

### **3.3. Permissibility**

The site is subject to the following zones under *Liverpool Local Environmental Plan (LLEP) 2008* (Figure 12):

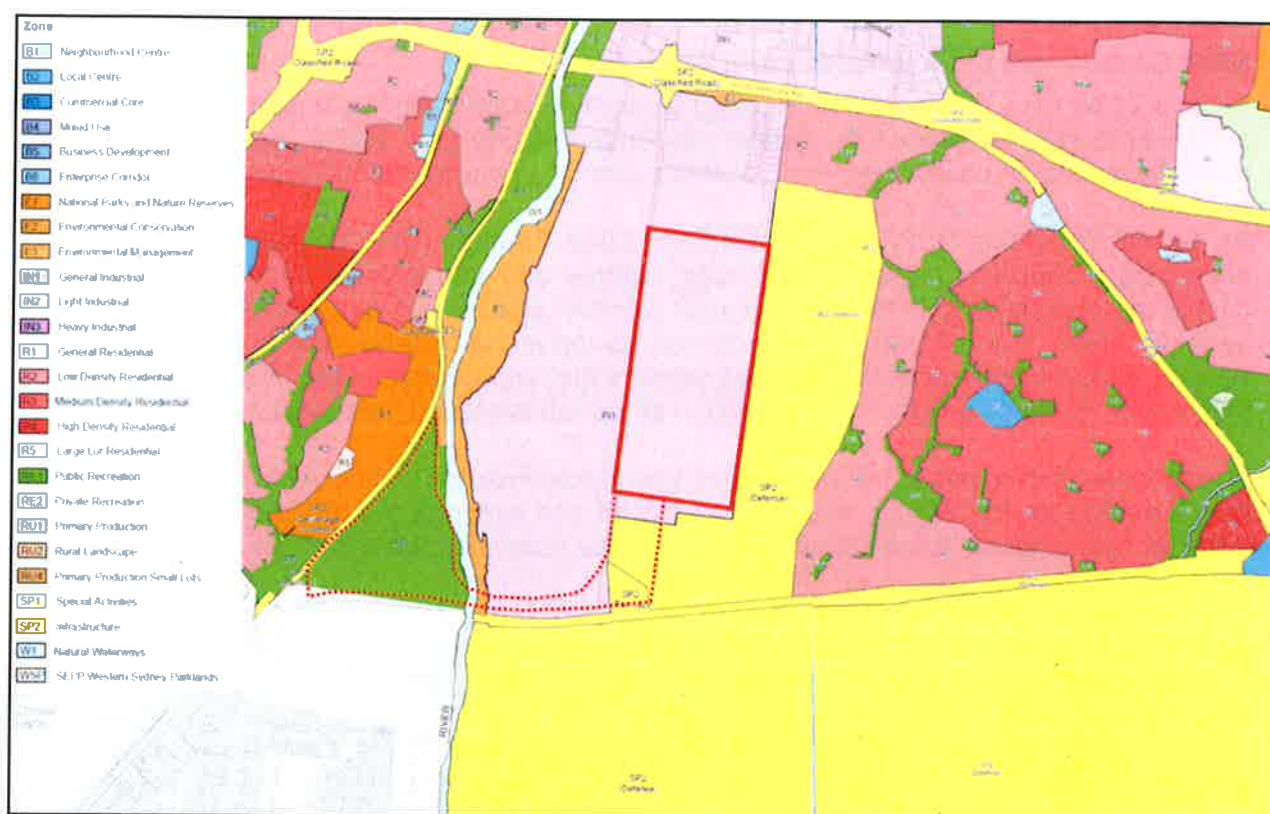
- **IN1 General Industrial zone:** 'Freight and transport facility', 'Warehouse or distribution centres' and 'Flood Mitigation Works' are permissible with consent within the General Industrial zone
- **SP2 Infrastructure zone:** 'Roads' are included within the Infrastructure zone.

The Proposal is therefore permissible with consent under the LLEP 2008.

The MPE Concept Plan approval allows for the use of the site as an intermodal facility, including a rail link to the Southern Sydney Freight Line, warehouse and distribution facilities, and

associated works. The Department considers the proposed development is consistent with the land-use parameters set by the MPE Concept Plan Approval.

The Department has undertaken a detailed assessment of the proposal against the conditions and FEARs of the MPE Concept Plan approval (**Appendix C**), and is satisfied the application is consistent with the MPE Concept Plan approval.



**Figure 12:** Site zoning under LLEP (Source: SSD 7628)

### 3.4. Environmental Planning Instruments

Under Section 79C of the EP&A Act, the Secretary's assessment report is required to include a copy of, or reference to, the provisions of any EPIs that substantially govern the project and that have been taken into account in the assessment of the project. The following EPIs apply to the site:

- *State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)*
- *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*
- *State Environmental Planning Policy No.33 – Hazardous and offensive development (Hazards SEPP)*
- *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*
- *State Environmental Planning Policy No. 64 – Advertising Structures and Signage (SEPP 64)*
- *Greater Metropolitan Regional Environmental Plan No.2 – Georges River Catchment*
- *Liverpool Local Environmental Plan (LLEP) 2008.*

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

### 3.5. Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects as set out in section 5 of that Act. A response to the Objects of the EP&A Act is provided at **Table 2**.

**Table 2:** Response to the objects of section 5 of the EP&A Act

<b>Objects of section 5 of the EP&amp;A Act</b>	<b>Department's Response</b>
(a) to encourage: (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,	The proposal provides for warehousing and associated infrastructure in support of an intermodal terminal in a strategically important location within south-west Sydney. The project will facilitate a mode-shift of the transportation of freight from road to rail based transport and will result in an overall reduction in greenhouse gas emissions and road congestion and provide for increased productivity and capacity of the freight network and relieve pressure on Port Botany. Impacts on biodiversity, amenity and traffic arising from the proposal can be appropriately managed and mitigated.
(ii) the promotion and co-ordination of the orderly and economic use and development of land,	The site is identified as an intermodal terminal site of strategic importance in government policy and the proposal (for warehousing associated with the already approved intermodal terminal) is therefore consistent with the strategic vision for the site. The MPE project will improve freight logistics within Sydney, NSW and interstate and will therefore have significant positive economic impacts.
(iii) the protection, provision and co-ordination of communication and utility services,	The proposed development will have a limited impact on communication and utility services. The Applicant will liaise with the relevant utility providers to ensure appropriate connections are made to the site. The proposed development is not considered likely to place adverse demand on utilities and services.
(iv) the provision of land for public purposes,	The proposal will upgrade Moorebank Avenue. The site was previously used as the DNSDC and was not publicly accessible, and there would be no loss of publicly accessible land. The proposal will include a network of internal roads, which will be accessible to visitors.
(v) the provision and co-ordination of community services and facilities, and	The proposal is for warehousing and associated infrastructure. It does not include the provision of community services or facilities.
(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and	The proposal includes the clearing of existing native vegetation, including threatened ecological communities and habitat. The principle of the removal of vegetation within the main body of the MPE site was approved as part of the MPE Concept Plan approval. The proposal does not result in any further disturbance to the sensitive ecological communities within the Boot Land, beyond what has already been approved.
(vii) ecologically sustainable development, and	The proposal includes measures to deliver ESD ( <b>Section 3.6</b> ).
(viii) the provision and maintenance of affordable housing, and	The proposal is for warehousing and associated infrastructure and does not include affordable housing.
(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and	The Department publicly exhibited the proposed development as outlined in <b>Section 4.1</b> , which included consultation with Council and other public authorities and consideration of their responses. The Department also referred the Response to Submissions report to Council and agencies for review, and has considered their advice following that review.
(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.	The Department publicly exhibited the application and subsequent Response to Submissions as outlined in <b>Section 4.1</b> , which included notifying adjoining landowners, placing a notice in the press and displaying the application on the Department's website and at Council's office. The Applicant also directly consulted with Government Authorities, Aboriginal stakeholders and the local community in preparing the application.

### 3.6. Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

The development proposes ESD initiatives and sustainability measures, including the consideration of:

- 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).

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision making process by a thorough assessment of the environmental impacts of the project. Overall, the proposal is consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act provided conditions are imposed to ensure the ESD commitments are delivered as part of the development.

As discussed at **Section 5**, the Department has recommended a condition requiring the proposed warehouses to be designed and operated to meet ESD principles.

### 3.7. Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act, assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered to be a 'controlled action'.

On 23 January 2012, the MPE project was determined to be a 'controlled action' (2011/6229) requiring assessment and approval under the EPBC Act in accordance with sections 18, 18A, 27 and 27A due to:

- the likely significant impact of the threatened species
- the site being on part Commonwealth land.

The Applicant referred the application to the Commonwealth Government for its consideration. In March 2014, the Commonwealth Government granted approval as a 'controlled action' under the



EPBC Act subject to conditions. Subject to the development complying with the conditions of approval no further consideration is required.

### 3.8. Secretary's Environmental Assessment Requirements

On 27 May 2016, the Department notified the Applicant of the Secretary's Environmental Assessment Requirements (SEARs) for the SSD application (revised 24 November 2016). The Department is satisfied the EIS adequately addresses compliance with the SEARs to enable the assessment and determination of the application.

## 4. CONSULTATION AND SUBMISSIONS

### 4.1. Exhibition

In accordance with Section 89F of the EP&A Act and Clause 83 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), the Department publicly exhibited concurrently the MOD 2 and Stage 2 applications from 13 December 2016 until 24 February 2017 (74 days). The application was exhibited on the Department's website, at the NSW Service Centre and at the Liverpool City Council's office.

The Department placed a public exhibition notice in the Sydney Morning Herald, Daily Telegraph, Liverpool Leader and Campbelltown Macarthur Advertiser on 14 December 2016, and notified adjoining landholders and relevant State and local government authorities in writing.

The Department received a total of 204 submissions, comprising seven submissions from public authorities, and 197 submissions from the general public. A summary of the issues raised in the submissions is provided at **Tables 3 and 4** and **Section 5** below and copies of the submissions may be viewed at **Appendix A**.

The Department has considered the comments raised in the public authority and public submissions during the assessment of the application (**Section 5**) and/or by way of recommended conditions in the instrument of consent at **Appendix C**.

#### 4.1.1. Public Authority submissions

**Table 3:** Summary of public authority submissions to the EIS exhibition

<b>Liverpool City Council (Council)</b>
Council objected to the proposal on the following grounds: <ul style="list-style-type: none"><li>• impacts from the Concept Plan and Stage 1 Approval are yet to be adequately assessed and mitigated</li><li>• the application should be held in abeyance pending the outcome of the modification (MP 10_0193 MOD 2)</li><li>• traffic congestion and associated impacts on amenity are anticipated to be greater than predicted in the EIS due to the methodology and associated assumptions used</li><li>• construction and operational noise and air quality impacts are likely to be greater than identified in the EIS due to the traffic assumptions used</li><li>• additional discussion, survey, avoidance and mitigation of impacts on <i>Hibbertia fumana</i> should be provided in the Biodiversity Assessment Report.</li></ul>
<b>Campbelltown City Council</b>
Campbelltown City Council did not object to the proposal and provided the following comments: <ul style="list-style-type: none"><li>• the reduction of truck entry points will have a detrimental impact on the efficiency of the road network</li><li>• SIDRA modelling should be used in calculating intersection queue lengths and level of service, SIDRA results should be provided to allow for verification</li><li>• the Traffic Management Plan should detail how truck movements along Cambridge Avenue would be restricted</li><li>• constructed traffic should not use the Cambridge Road access and the Cambridge Avenue intersections have not been assessed for construction impacts</li></ul>

- demand for car parking resulting from overlap of shift working needs to be considered
- the impact of A-double heavy vehicles should be considered as part of the traffic assessment
- clarification of what materials unsuitable for disposal at the Glenfield Waste Facility include.

#### **Department of Primary Industries (DPI)**

DPI did not object to the proposal and provided the following comments:

- details on the proposed drainage works to the south of the MPE site are required
- any riparian vegetation temporarily cleared for construction purposes should be actively revegetated
- clarify whether the east/west concrete channel will be revegetated and repaired
- the hydrological relationship of the site to Groundwater Dependent Ecosystems should be investigated
- prepare a Trigger Action Response Plan dealing with groundwater, collection, testing and disposal and DPI should be notified if groundwater is intercepted or affected
- mitigation measures should be updated to address clearance of vegetation, transplantation of native plant and collection of topsoil and seedbank
- mitigation measures relating to erosion and sediment control, stormwater treatment, and aquatic biodiversity should be implemented during and following construction
- the Applicant should consult directly with DPI.

#### **Office of Environment and Heritage (OEH)**

OEH did not object to the proposal and provided the following comments:

- further information (and mitigation measures) is required of the indirect impacts of the proposed fill/earthworks on the neighbouring 'Boot Land'
- the assessment of direct impacts of the proposal on biodiversity is adequate
- the stormwater and flooding assessment follows accepted floodplain risk management practice.

#### **Heritage Council of NSW (Heritage Council)**

The Heritage Council did not object to the proposal and stated the proposed non-indigenous archaeology mitigation measures are acceptable and recommended the Heritage Interpretation Strategy be prepared prior to works commencing on-site.

#### **NSW Environment Protection Authority (EPA)**

EPA did not object to the proposal and provided the following comments:

- further justification is required for out of hours construction work
- further justification is required for on-site crushing and concrete batching plant
- a construction noise and vibration management plan is required
- reversing on the site and trucks stopping in exposed areas should be minimised
- the combined maximum operational noise impacts (MPE and MPW) should be predicted/provided.

#### **Department of Industry Resources and Energy (DOI)**

DOI does not object to the proposal and confirmed it would not have any mineral resource impacts and there are no current mineral, coal or petroleum titles over the site.

### **4.1.2. Public submissions**

**Table 4:** Summary of the public submissions on the proposal

<b>Issue</b>	<b>Number of Submissions</b>	<b>Proportion of submissions</b>
Traffic impacts	101	51%
Suitability of the site	55	28%
Biodiversity impacts	49	25%
General / unstated opposition to the proposal	48	24%
Noise impacts	38	19%
Contamination and pollution	37	19%
Health impacts	34	17%
Air quality impacts	31	16%
Impact of importation of fill	21	11%
Insufficient community consultation	11	6%
Light spill impacts	11	6%
Hours of operation / construction	10	5%



Other issues raised in less than 5% of submissions include cultural heritage, flooding and employment impacts.

The Department has considered the issues raised in public submissions as part of the assessment of the proposal, which is detailed in **Section 5**.

## 4.2. Response to Submissions

Following the exhibition of the application the Department placed copies of all submissions received on its website and requested the Applicant provide a response to the issues raised in the submissions.

On 28 July 2017, the Applicant provided a Response to Submissions (RtS) (**Appendix A**) on the issues raised during the exhibition of the proposal. The RtS includes the following amendments to the proposal:

- realignment of OSD Basin 1 and inclusion of a spillway at the north-eastern corner of the site
- changes to the length of the Moorebank Avenue upgrade
- changes to warehouse layout
- alterations to drainage design to the south of the MPE site
- amendments to the construction and operational area as a result of the above amendments.

The RtS also included details in relation to a change in fill importation volumes, from 600,000 m<sup>3</sup> to approximately 695,000 m<sup>3</sup>, being 631,900 m<sup>3</sup> on the MPE Stage 2 site and 63,200 m<sup>3</sup> on the Moorebank Avenue site.

The RtS was made publicly available on the Department website and was referred to the relevant public authorities. An additional 5 submissions were received from public authorities, no submissions were received from the public. A summary of the issues raised in the submissions is provided at **Table 5** and copies of the submissions may be viewed at **Appendix A**.

**Table 5:** Summary of public authority submissions to the RtS

<b>Council</b>
<p>Council reiterated its objection to the application, and recommended that a new application should be prepared in conjunction with a new, precinct-wide masterplan for the combined MPW and MPE sites. Council also requested information relating to:</p> <ul style="list-style-type: none"> <li>• Back of queue traffic data</li> <li>• Management measures to ensure avoidance of noise impacts at Wattle Grove</li> <li>• Management of fill importation, particularly in relation to quality assurance and quality control measures for clean fill.</li> </ul>
<b>EPA</b>
<p>EPA raised concerns about the justification for:</p> <ul style="list-style-type: none"> <li>• construction outside standard construction hours</li> <li>• on-site rock crushing and concrete batch plant.</li> </ul> <p>EPA also requested:</p> <ul style="list-style-type: none"> <li>• assessment of the total operational noise levels of the combined MPE and MPW site</li> <li>• the Applicant consider non-tonal movement alarms for vehicles on-site.</li> </ul>
<b>OEH</b>
<p>OEH requested additional biodiversity surveying be undertaken and if required an updated BAR be submitted</p>
<b>Transport for NSW and Roads and Maritime Services</b>
<p>TNSW/RMS provided recommended conditions requiring the Applicant deliver three main infrastructure upgrades at Moorebank Avenue/M5, Newbridge Road/Moorebank Avenue, and the Moorebank Avenue/Heathcote Road. TNSW/RMS will also manage the applicant's delivery of the Moorebank Avenue upgrade to ensure appropriate traffic flows are maintained.</p>

#### Rural Fire Service (RFS)

The RFS considered the RtS and provided recommended conditions requiring the development comply with the *Bushfire Protection 2006* and that the site be managed as an Inner Protection Area.

### 4.3. Supplementary Information

The Department requested a series of additional information to provide clarification and inform its assessment of the proposal following receipt of the agency submissions on the RtS. On 10 November 2017, the Applicant collated its submissions in a single Supplementary Information compilation.

The Supplementary Information includes the Applicant's response to agency submissions, and an updated Biodiversity Assessment Report (BAR) conducted for the Stage 2 application. The updated BAR includes the results of additional vegetation surveys requested by OEH, as well as a revised assessment of site-wide impacts that include the impact of works west of Moorebank Avenue associated with the Moorebank Avenue Upgrade. The findings of the updated BAR relevant to this application are summarised in **section 5.3**.

The Department notes the BAR has been submitted under the Framework for Biodiversity Assessment and NSW Biodiversity Offsets Policy for Major Projects, as the project is a transitional project under Part 7 of the *Biodiversity Conservation (Savings and Transitional) Regulation 2016*.

The Applicant also provided information addressing an issue relating to land owners' consent. Land owner's consent for additional drainage works within part of the DJLU site (Lot 3002, DP 1125930) for additional works to occur within that land not been provided. Although a stormwater connection is currently provided within that site, the additional works are no longer part of the proposal.

An additional submission was received from OEH. A summary of the issues raised in the submissions is provided at **Table 6** and copies of the submission may be viewed at **Appendix A**.

**Table 6:** Summary of public authority submissions to the Supplementary Information

OEH
<p>OEH reviewed the revised BAR, considers the revised BAR adequate and notes:</p> <ul style="list-style-type: none"><li>• Section 6.3.1 - The 'Amended Proposal Site' area contains four (not two) PCTs (confirmed by figure 6-1 and table 6-8).</li><li>• Table 7-2 - The <i>Wahlenbergia multicaulis</i> entry should be removed as the MPE site is outside the defined population area. The <i>Hypsela sessiliflora</i> entry should also be removed as it was delisted by the NSW Scientific Committee in 2016.</li></ul> <p>Conditions have been recommended that required credits be retired prior to commencement of construction</p>

## 5. ASSESSMENT

### 5.1 Section 79C(1) matters for consideration

**Table 7** identifies the matters for consideration under section 79C of the EP&A Act that apply to SSD in accordance with section 89H of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 5** (key and other issues) and relevant appendices or other sections of this report and EIS, referenced in the table. The EIS has been prepared by the Applicant to consider these matters and also those required to be considered in the SEARs, section 78(8A) of the EP&A Act and Schedule 2 of the EP&A Regulation.

**Table 7:** Section 79C(1) Matters for Consideration

Section 79C(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Satisfactorily complies. The Department's consideration of the relevant EPIs is provided in <b>Appendix B</b> of this report.
(a)(ii) any proposed instrument	Not applicable.
(a)(iii) any development control plan	Under clause 11 of the SRD SEPP, development control plans (DCPs) do not apply to SSD.
(a)(iiia) any planning agreement	The proposal does not include a voluntary planning agreement (VPA). However, the Department recommends that the Applicant either make a contribution as specified in <b>Section 5.12</b> , or prepare a VPA with Council executed prior to construction
(a)(iv) the regulations <i>Refer Division 8 of the EP&amp;A Regulation</i>	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development	Appropriately mitigated or conditioned - refer to <b>Section 5</b> of this report.
(c) the suitability of the site for the development	The site is suitable for the development as discussed in <b>Sections 3 and 5</b> of this report.
(d) any submissions	Consideration has been given to the submissions received during the exhibition period. See <b>Sections 4 and 5</b> of this report.
(e) the public interest	Refer to <b>Section 5</b> of this report.
Biodiversity values impact assessment not required if: (a) On biodiversity certified land (b) Biobanking Statement exists	A Biodiversity Assessment Report and an Updated Biodiversity Assessment Report has been provided in support of the proposal, which considers the direct and indirect impact on species and communities. See <b>Section 5</b> of this report.

### 5.2 Consistency with the Concept Plan Approval

The Concept Plan approval (MP 10\_0193) for the site sets out a number of requirements and parameters for future DA(s) in developing the MPE site.

As discussed in **Section 1.4**, the Department is concurrently considering a modification request to the Concept Plan approval (MP 10\_0193 MOD 2), with this SSD application. The modification application seeks approval to modify to expand the site boundary, import fill to the site and associated earthworks, upgrade Moorebank Avenue, reconfigure the Concept Plan layout, revise the staging of the project and allow subdivision to facilitate this SSD application.

In this regard, the Department considers it appropriate that this SSD application be assessed in accordance with the Department's final recommendations for the proposed modification application to the Concept Plan. The Department has considered the requirements of the modified Concept Plan approval in detail at **Appendix C**. In summary, the Department considers the proposal is generally consistent with the Concept Plan approval (as modified).

Consideration of the key assessment issues is provided within the following section.

### **5.3 Key assessment issues**

The Department has considered the EIS, the issues raised in submissions and the Applicant's RtS in its assessment of the proposal. The Department considers the key issues associated with the proposal are:

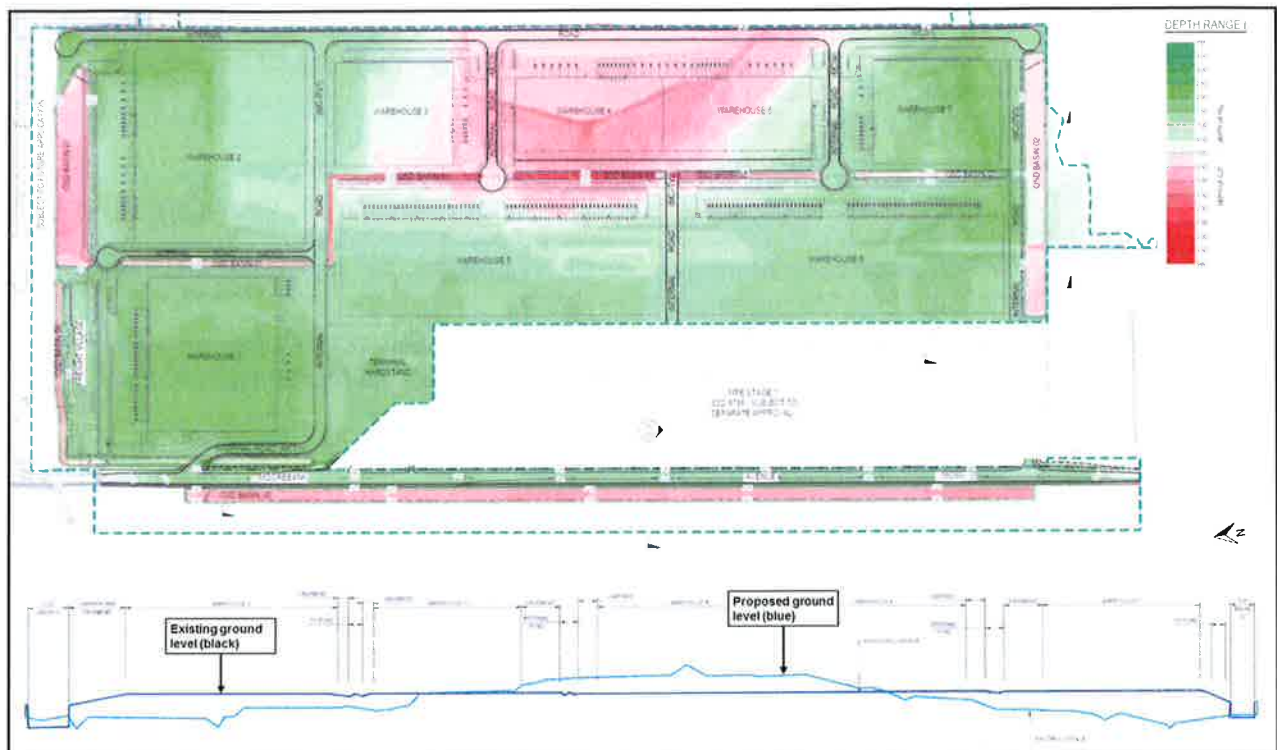
- geotechnical / importation of fill
- traffic impacts
- noise impacts
- stormwater and flooding
- air quality impacts
- built form and land uses
- subdivision
- biodiversity
- local contributions
- contamination.

Each of these issues is discussed in the following sections of this report. Other issues were taken into consideration during the assessment of the application and are discussed at **Section 5.14**.

### **5.4 Geotechnical / importation of fill**

The proposal seeks approval for the importation of 600,000 m<sup>3</sup> of fill to the site for bulk earthworks, and the EIS technical documents provide technical information in relation to the importation of 600,000m<sup>3</sup> of spoil. The fill is proposed to be clean general fill that would meet the definition of Virgin Excavated Natural Material (VENM) and/or Excavated Natural Material (ENM).

The existing site is not level and the proposal therefore includes both cut (up to 1.5 m) and fill (up to 3 m) to level the site. The resulting height of the site following the importation of fill is shown at **Figure 13**.



**Figure 13:** Proposed location and predicted depth of cut and fill (top) and east-west section through the site indicating the existing proposed land height (Base source: Applicant's EIS)

The Applicant's RtS, however, includes a reference (page 4-31) to the importation of 695,100 m<sup>3</sup> of fill material, advising that this is the correct preliminary volume of material for which consent is sought. The 695,100 m<sup>3</sup> volume represents the importation of 631,900 m<sup>3</sup> of material to the MPE Stage 2 site and 63,200 m<sup>3</sup> of material to the Moorebank Avenue site for the road upgrade works.

The Department considered the importation of 600,000 m<sup>3</sup> fill to the site as part of its assessment of MOD 2. The Department concluded the importation of fill to the site is acceptable and FEAR 2.1 *Soil and Water* requires future DA(s) to include assessments of surface/groundwater flows, flooding, include measures to manage dust, contaminated fill and prepare a fill management protocol.

Concerns have been raised in public submissions about the impact of the importation of fill to the site. Council has raised concern about the contamination risk associated with the importation of offsite fill and Campbelltown City Council has requested the Applicant confirm the sources of fill.

The Applicant states the importation of fill and associated bulk earthworks is required to facilitate the adequate operation of drainage and flood protection infrastructure across the site. In particular, the adjustment of the site's final levels is required to:

- achieve the minimum gradients required for the site drainage infrastructure upstream of the onsite detention (OSD) basins
- ensure the site can be effectively drained in a 100-year annual recurrence interval (ARI) flood event
- bring operational areas of the MPE above the regional probable maximum flood (PMF) levels.

The Applicant submitted a Geotechnical Interpretative Report (GIR), which considered the impacts of the importation of fill to the site. The GIR concludes that the development will involve relatively routine geotechnical design and construction procedures, the sides of excavations can be battered or alternatively laterally supported and settlement beneath floor slab loads are predicted to be about 20 mm to 40 mm, which is within the typical tolerance limits for industrial structures. The GIR recommended further targeted detailed investigations be undertaken based on the final developed detailed design.

To ensure the proposal for fill importation has acceptable environmental and amenity impacts, the Department recommends the following conditions:

- only ENM and/or VENM can be brought to the site
- the recommendations of the GIR be incorporated into the earthworks plan
- preparation of a works-as-executed report to be prepared by a geotechnical engineer demonstrating how geotechnical constraints have been accommodated
- preparation of a Soil and Water Management Plan (SWMP), Fill Environmental Management Plan (FEMP) and Stockpile Management Plan (SMP)
- fill batters to be a maximum ratio of 1:4 (vertical/horizontal) and details of slope stabilisation
- other conditions as discussed within the following sections of this report listed below.

The Department has reviewed the inconsistencies in fill volumes, and has consulted with the Applicant. The Department concludes that the Applicant:

- has based its detailed environmental assessments and reporting on fill importation volumes ranging between 600,000 m<sup>3</sup> and 695,100 m<sup>3</sup>
- while assessment of the greater volume may provide a conservative view of impacts, the overall impact assessment only justifies the importation of 600,000 m<sup>3</sup> of fill, as that is the maximum volume assessed consistently
- the modification documentation is based on 600,000 m<sup>3</sup>.

On this basis, the Department recommends that the Applicant be restricted to a maximum fill importation of 600,000m<sup>3</sup>, maximum.

The Department has also considered the immediate impacts relating to the importation of fill to the site in terms of:

- construction traffic, as discussed at **Section 5.5.1**
- noise, as discussed at **Section 5.6**
- stormwater and drainage, as discussed at **Section 5.7**
- air quality, as discussed at **Section 5.8**
- visual impacts, as discussed at **Section 5.9.2**.

The Department considers that, with the recommended conditions in place, the proposed importation of fill to the site can be approved.

## **5.5 Traffic impacts**

The Applicant provided a Construction Traffic Impact Assessment and Operational Traffic and Transport Impact Assessment, and preliminary Operational Environmental Management Plan, which concludes that construction impacts can be managed using appropriate mitigation measures including signage and construction speed limits during the construction period. The Applicant's assessment also concludes that operational impacts are acceptable; however, it assumes that a series of intersection upgrades in the area will be delivered separately to the proposed to cater for background traffic growth, and concludes that, while the proposal does not necessitate those upgrade works, the proposal contributes to increased traffic and may require provision of a development contribution to partially fund those works.

Both Transport for NSW and Liverpool City Council provided submissions questioning the Applicant's assumptions that the intersection upgrades should be provided separate to the proposal. Council asserted the upgrades should form part of any conditions of consent for the proposal.

Council raised concerns with the effect of queuing on the proposed MPE Stage 2 access. This access is not envisaged in the existing concept plan, but introduced as part of this proposal and the concurrent Concept Modification.

### 5.5.1 Construction traffic

The Applicant's construction traffic impact assessment modelled a two year construction period commencing with pre-construction and site preparatory works and establishment of a diversion road parallel to Moorebank Avenue.

Under the indicative construction program, peak traffic generation would occur during the concurrent works along Moorebank Avenue, establishment of the site, and commencement of warehouse construction. Under this scenario, the Applicant states that PM peak traffic (5-6pm) would comprising 67 return heavy vehicle trips and 102 light vehicle trips. All heavy vehicles are assumed to enter and exit the site and enter the road network via the M5 Motorway and roads to the north; 90% of light vehicles would be assumed to follow the same route, with 10% anticipated to use Anzac Road.

The Applicant's modelling indicates that this traffic generation can be catered for within the existing capacity of affected intersections. The Department accepts this conclusion, but considers that active and adaptive management of the Moorebank Avenue upgrade will be required to ensure impacts of construction remain acceptable.

#### *Moorebank Avenue diversion road*

The Applicant intends to divert traffic from Moorebank Avenue to allow the upgrade works to occur away from live traffic. To allow for this, the Applicant proposes to establish a Moorebank Avenue diversion within the MPW site so that at least two lanes of traffic are maintained throughout construction. Details of the access road were provided in the Operational Traffic and Transport Impact Assessment; however, Transport for NSW and Roads and Maritime Services sought further information about delivery of this work.

The Applicant intends to deliver the Moorebank Avenue diversion and upgrade in a series of stages. These stages would divert general traffic on to the diversion road as it is built, while progressively establishing access roads from the diversion road to the four proposed access points on the MPE site. The staging is shown in **Figure 14**.

The Department considers that Moorebank Avenue or the diversion road (or a combination of the two) must remain open to north and south through-traffic throughout construction. The Department accepts advice from the Transport cluster that retention of the connectivity along Moorebank Avenue is of high importance, given the significance it will assume locally and regionally from a network safety and efficiency perspective.

The Department notes that the staged diversion would include a series of temporary signalised intersections to allow safe site entry and exit. The Department considers that these works can be delivered by the Applicant, provided they meet established standards. To this effect, the Department has recommended a series of conditions proposed by Transport for NSW and Roads and Maritime Services that would ensure that these works are designed to a standard to the satisfaction of RMS. These include the requirement for a Moorebank Avenue Upgrade Staging Plan, to ensure adequate capacity and demonstrate the commitment to maintaining two lanes open to traffic along Moorebank Avenue at all times.

#### *Spoil haulage and fill importation*

The Department notes that the proposal includes importation of a large volume of fill 600,000 m<sup>3</sup>, to deliver the site levels envisaged in the development plans.

The Department considers that fill importation is one of the key traffic generators of construction, and that it will be critical for the Applicant to manage importation in a way that:

- minimises traffic movements
- spreads incoming and outbound heavy movements across the day, preferably outside peak hours
- maximises any approved onsite storage to achieve the above.

The Department has recommended that the Applicant prepare a Spoil Haulage and Fill Importation Plan that details:

- amount of spoil and fill to be received on site or taken from site;
- details of origin and destination of spoil/fill;
- details of haulage routes to and from site;
- when the spoil would be received.

#### *Site access*

The Department acknowledges Campbelltown Council's concerns about potential access to the site via Cambridge Avenue, which links Moorebank Avenue to Glenfield due to its constraints. Council recommends that construction and operational traffic should be restricted from using Cambridge Road on the basis:

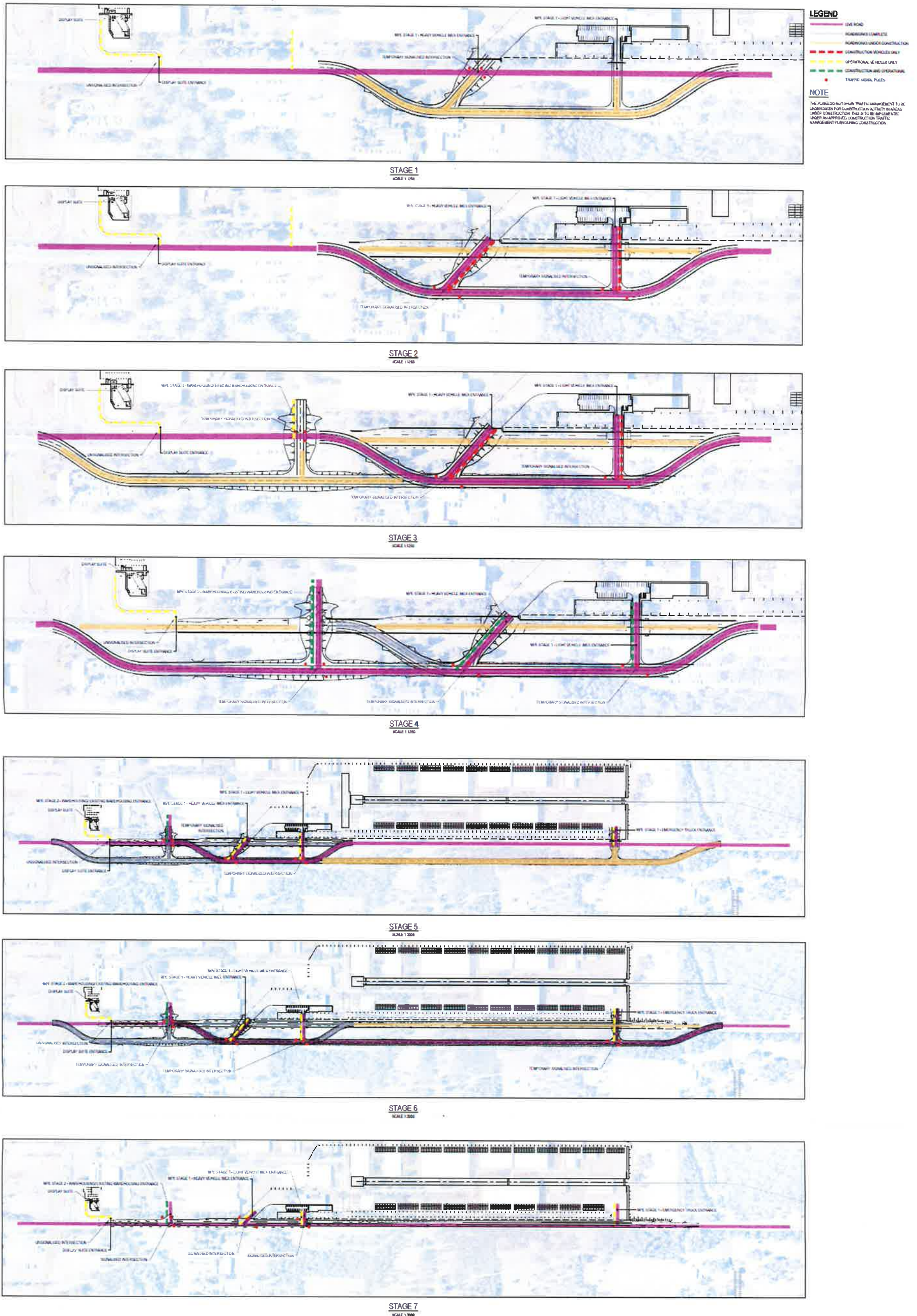
- construction impacts on Cambridge Avenue have not been assessed
- a proposed drivers' code of conduct, detailing how heavy vehicle drivers would be instructed not to accessing the site via Cambridge Avenue has not yet been prepared.

The Department has reviewed Councils submissions and the Applicant's response, which confirmed that use during construction would be restricted to disposal of materials that the Glenfield Waste Facility is license to receive. The Department acknowledges the need to dispose of waste material safely, but considers that:

- the Applicant has not demonstrated the need for access to Cambridge Avenue or provided a detailed assessment of its use.

The Department has recommended conditions that require the Applicant to prepare a drivers' code of conduct for both construction and operation, directing that there be no access to or from the site from Cambridge Avenue.





**Figure 14:** Indicative staging – Moorebank Avenue upgrade and diversion road (Source: Response to Transport for NSW submission (SIMTA, 29 September 2017) (Attachment C(iii)))

### 5.5.2 Operational traffic

The Applicant conducted modelling of operational traffic impacts along Moorebank Avenue and at key intersections in the local and regional road network, to determine the level of impact of the proposal and identify the need for intersection treatments to allow continued function of the road network. The Applicant has described its approach as a 'no-worsening of the "without Proposal" traffic impacts. The modelling assumes 250,000 TEU per annum attributable to MPE Stage 1, as approved, and approximately 300,000m<sup>2</sup> warehousing for the proposal, and was conducted for full operation in 2019 and 2029.

The key trip generators of the Stage 2 proposal are the warehousing precinct, and the freight village. The Applicant has advised that its predicted trip generation rates are based on traffic surveys of industrial estates in Erskine Park and Eastern Creek, and assume 24 hour warehouse and intermodal terminal access and use, with staffing over three daily shifts.

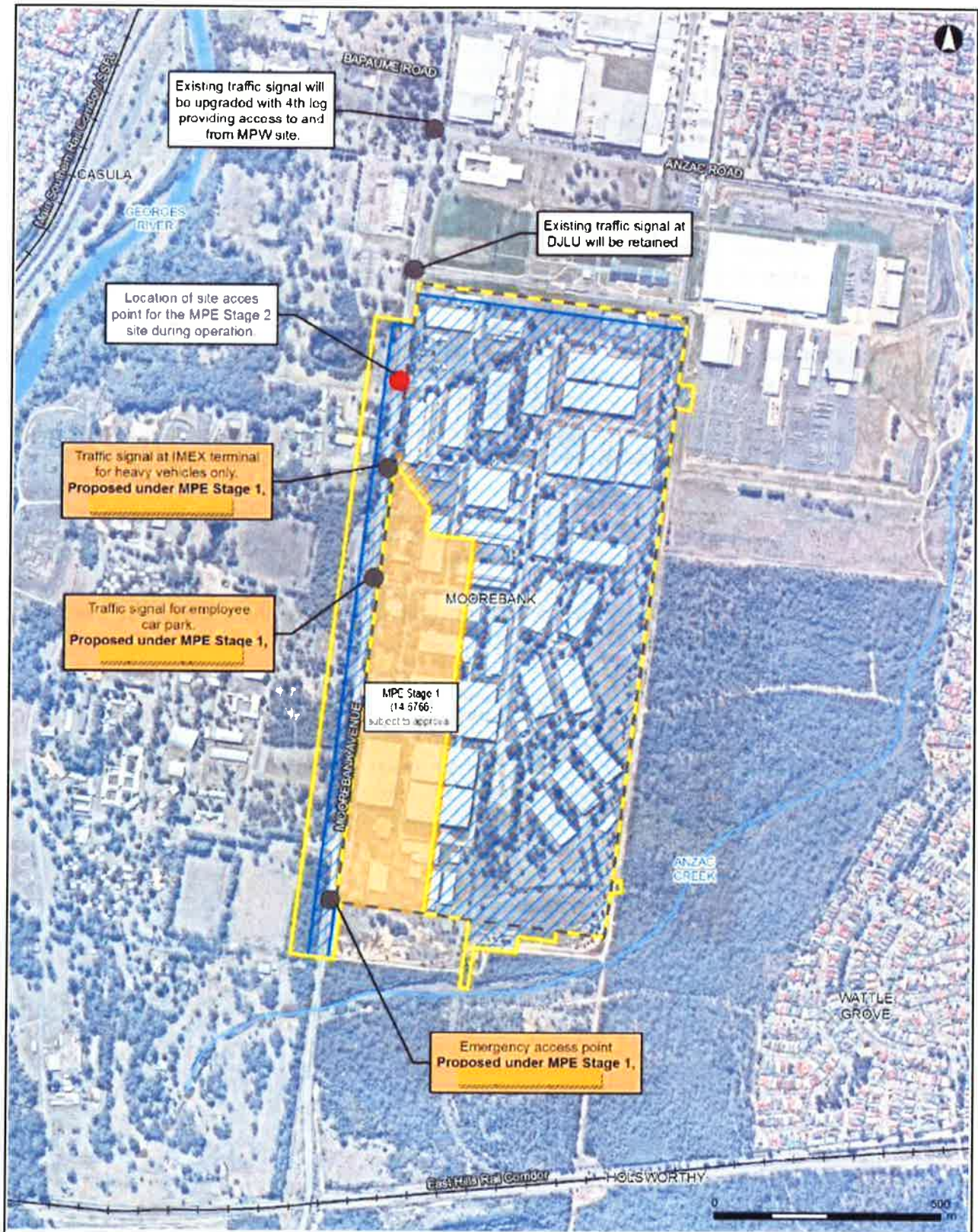
In total, the proposal is anticipated to generate 564 heavy vehicle return trips per day, and 3,993 light vehicle return movements per day.

The Department's analysis of the proposal is predicated on the position that every heavy vehicle movement during operation includes a rail freight movement. This is fundamental to the MPE and MPW sites operating as intermodals. While this Stage 2 proposal is predominately for a warehousing precinct, it forms part of a broader intermodal precinct whose strategic need and ultimate function is to promote the use of rail freight to and from Western Sydney. This is also consistent with the Commission's approval for the MPE Concept Plan, and the Proponent's continued commitments throughout the assessment period. Notwithstanding, the Department has recommended conditions that would reiterate and emphasise that the proposal is inextricably linked to the intermodal facility approved in MPE Stage 1.

#### *Site access*

The Department notes that the Applicant proposes the main Stage 2 site entry south of the original proposed 'Northern Access' shown in the original MPE Concept Plan reports. The Applicant asserts that this access would form the main entrance for the 'interim stages of operation', though it is referred to as the final configuration for the purposes of this application. The site access points of the proposal are shown in **Figure 15**.





**Figure 15:** MPE Site access (Source: RtS (Arcadis 2017) Appendix I: Consolidated Proposal Description)

The Department acknowledges Council's concerns about the relative proximity to that original Northern Access, and the potential duration of the access as an 'interim' measure. On this point, the Applicant's Submissions Report notes:

*The interim site access has been proposed pending the finalisation of consultation with the Department of Defence and Roads and Maritime Services regarding provision of a shared access with DJLU at the location identified by the MPE Concept Plan EA. It is noted that the current DJLU intersection was constructed subsequent to the MPE Concept Plan Approval and the northern site access identified in the approval cannot now be implemented unless the intersection is integrated with the DJLU access.*

Consequently, the plans for the site in the application note that the northern part of the site is reserved as 'subject to future application'.

The Department is satisfied that the new 'interim' access is appropriate for the site. The Department's assessment of the application has assumed this as the ultimate site access given the uncertainty around the DJLU access point at this stage.

The Department does not consider that the Stage 2 application either requires or prevents the future pursuit of the Northern Access. If the Applicant seeks to pursue the Northern Access at a later date, it would need to seek a separate development consent for its construction and use.

#### *Intersection Upgrades*

Consistent with the Commission's evaluation of the MPE Concept Plan, the Applicant progressed detailed modelling for Stage 2 to determine the mitigation measures that are required to ensure that the capacity of the transport network is not exceeded. Notably, the Applicant's modelling identifies a series of regional upgrades that would need to take place around the site to accommodate background traffic growth over time. The Applicant's assessment assumes that upgrades for seven intersections are to be funded and completed by Roads and Maritime Services, being:

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

These intersections are in addition to eight 'planned and committed' upgrades by RMS in South West Sydney designed to facilitate future growth.

The Applicant accepts that the proposal would impact on a number of these intersections during operation. The largest impact is to the Moorebank Avenue/Anzac Road intersection, where the Applicant assessed project impacts would contribute a 7% increase to intersection traffic on project opening. The Applicant acknowledged that traffic would increase at a series of other intersections, including the M5 interchange, and the Moorebank Avenue/Newbridge Road and Moorebank Avenue/Heathcote Road intersections. However, the Applicant asserts that these increases:

- are generally less than 5%
- are often highest at inter-peak times, and do not have significant impacts during peak times
- should be considered 'marginal' impacts within daily traffic variation.

It is important that developments should contribute to meeting the cost of infrastructure needs relating to the site. It follows that determining the split of future traffic increases between the



proposal and the background growth and cumulative traffic generation of other developments is a key aspect of determining the acceptability of the proposal.

The Department sought advice from an independent traffic and transport specialist, Cambray Consulting Pty Ltd. The independent reviewer concluded that the traffic analysis does not confirm that Proposal traffic does not bring about the need for upgrades at a number of identified intersections. Further, the reviewer recommended, given the likelihood of impact, that the Department consider conditioning reasonable works or contributions.

The Department consulted with Transport for NSW and Roads and Maritime Services, and has concluded that the 5% incremental impact threshold proposed by the Applicant is not the best way to determine if a contribution is required. In forming this view, it is noted that the Applicant's assessment analyses the impact of the proposal as a proportion of:

- existing traffic
- background traffic growth
- project-related traffic.

It is considered that existing traffic should be excluded from this calculation, because an upgrade will only be caused by background traffic growth, or the project, or a combination of the two (if an intersection is functioning within capacity with existing traffic). The Department considers that the proposal should instead bear the cost of upgrading those intersections where the proposal would result in an exceedance of capacity.

The Department has reviewed advice from the Transport cluster and the independent reviewer about the intersections and roads that would require upgrade to minimise the impacts of the proposal. The Department has assessed these requirements in the context of a broader process that is being conducted for the overall MPE and MPW precinct.

Under the Liverpool Local Environmental Plan 2008, the Applicant is required to make 'satisfactory arrangements' for the provision of relevant State public infrastructure, to satisfy the needs that arise from MPW intermodal development. The Department understands the Applicant and the Transport cluster are continuing to review of impacts for the full build of the overall MPE and MPW precinct. The outcome of the review process will be a binding agreement that determines how the Applicant would contribute to the provision of relevant State public infrastructure.

The Department accepts the Transport cluster's advice that there are three key intersections that would require upgrade to facilitate the MPE Stage 2 proposal, in addition to the Moorebank Avenue work directly required to deliver the project. The Department recommends that, where the independent traffic review prepared by Cambray Consulting Pty Ltd identifies the need for a contribution to other infrastructure upgrades, that the level of contribution to those upgrades would be determined as part of the broader satisfactory arrangements process.

The Transport cluster has proposed a staged approach to upgrades, which would allow for priority upgrades to take place first, based on proponent's actual schedule for constructing and operating the warehouses forming part of MPE Stage 2. The Transport cluster's proposed conditions are summarised below in **Table 8**.

**Table 8:** Transport recommended conditions — intersection upgrades

Required intersection upgrade	Construction phase
<ul style="list-style-type: none"> <li>• Moorebank Avenue / M5 Motorway intersection</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to issue of the first Occupation Certificate for warehousing in excess of 100,000m<sup>2</sup>, or no later than December 2020, or a later date as</li> </ul>

	agreed with the Secretary of Transport for NSW
<ul style="list-style-type: none"> <li>Intersections of: <ul style="list-style-type: none"> <li>Newbridge Road/Moorebank Avenue</li> <li>Moorebank Avenue/Heathcote Road</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>By December 2022</li> </ul>
<ul style="list-style-type: none"> <li>Upgrade Moorebank Avenue to four lanes</li> </ul>	<ul style="list-style-type: none"> <li>Prior to an Occupation Certificate for activity exceeding 30% of the MPE Stage 2 development, i.e. 100,000m<sup>2</sup> warehousing</li> </ul>

The Department considers that these upgrades would allow the MPE Stage 2 development to operate while allowing the local and regional road network to continue to perform acceptably.

#### *Moorebank Avenue Upgrade*

The Applicant proposes a major upgrade to Moorebank Avenue as part of the MPE Stage 2 proposal. While the alignment will remain unchanged, the road will be raised up to two metres to match the proposed grade and elevation of the MPE and MPW sites. The road will be expanded from two to four lanes (two in either direction). The road will remain single carriageway.

While the upgrade of Moorebank Avenue is to be delivered as part of this proposal, and the extent of the road south of Anzac Road is owned by the Commonwealth Government, the Department notes that Moorebank Avenue is and will remain open to the public for use. It currently forms part of the local and regional road network, providing both the key access to the site and an important public connection between Glenfield and the Moorebank/Liverpool area.

More broadly, the Department acknowledges the Transport for NSW and Roads and Maritime Services' position that Moorebank Avenue should be dedicated to Liverpool City Council (as a public road north of Anzac Road, and as a temporary public road for its balance to the south). The Transport cluster contends that this dedication is required given the significance that Moorebank Avenue will assume locally and regionally from a network safety and efficiency perspective.

The Department supports the Transport cluster comments and has recommended a condition accordingly.

#### *Parking*

The proposal originally provided for 1474 car parking spaces across the site. This parking provision exceeds the requirements of the Liverpool Development Control Plan which requires 1 space for 250m<sup>2</sup> in gross floor area for developments over 1000m<sup>2</sup>. Council subsequently raised concerns that the higher level of available parking space would encourage staff to drive to the site. The Applicant asserts that its parking figures are based on its own parking analysis, and with reference to the *Guide to Traffic Generating Developments* (RTA 2002), which specified parking rates as:

- 1 car space per 300m<sup>2</sup> Gross Floor Area (GFA) for warehouses
- 1 car space per 40m<sup>2</sup> GFA for offices

The Applicant has since revised its overall parking figures, as it amended its proposed warehousing floor area in its response to submissions. The total proposed parking levels are specified as 1,212 spaces for the warehousing (based on total floor area of 295,300m<sup>2</sup> and 8,000m<sup>2</sup> ancillary office space) and 230 for the freight village, for a combined site parking provision of 1,442 spaces.

The Department considers that the proposed parking space numbers would be a maximum, as the Department has recommended conditions that require setbacks from internal roads, tree

planting, and inclusion of 5 m wide landscaped bay every 6-8 car spaces incorporating canopy trees for shade.

The Department acknowledges Council's submission that a high rate of parking could encourage staff to drive to work rather than pursuing other arrangements including public or active transport and carpooling. It is recommended that the Applicant actively manage operations to encourage staff to take use of alternate arrangements. The Department has recommended the Applicant prepare a Workplace Travel Plan for the site, that includes measures to promote public or active transport and carpooling including publishing and maintaining a travel guide for staff at the facility. The Department considers that this requirement would codify the Applicant's own commitments, which include provision of cycling bays and end-of-trip facilities.

#### Internal road network

The Applicant has proposed a series of internal roads to provide access to the warehousing precinct and to the intermodal terminal. The internal road network is shown in **Figure 16**.



**Figure 16:** Internal road network (Source: RtS (Arcadis 2017) Appendix I: Consolidated Proposal Description)



The Department acknowledges that the Applicant's delivery of the proposal may be in part dependent on demand and commercial tenancy arrangements, and that the eight warehouses may not be delivered together. The Department generally considers this acceptable, and accordingly recommends conditions that would allow the Applicant to prepare a staging report, detailing how it would stage delivery while complying with all relevant requirements.

However, it is critical that the servicing of sites is provided for before subdivision could occur. As such, the Department considers that, for the essential functioning of site, the entirety of the road must be established before operation of any component of the warehousing or freight village can commence. This arrangement is considered necessary because:

- the arrangement of the road network is considered to be finalised, subject to verification of compliance with relevant standards and demonstration that the alignments would support B-double movements
- it is important that the full network is delivered to ensure all sites are serviced
- the delivery of the transfer roads is critical, given the nexus between the intermodal terminal and the entirety of this Stage 2 proposal.

Prior to the establishment of the road network, the Department has recommended conditions that the Applicant engage an independent traffic engineer to verify that the road alignments:

- comply with the relevant standards, including the Austroads requirements, and relevant RMS specifications
- confirm that the cul-de-sacs and internal areas within the warehousing precinct provide sufficient space for the swept path and turning circle (as relevant) of a B-double truck.

#### *Intermodal freight village*

The Applicant proposes to operate an 8,003m<sup>2</sup> freight village, comprising one light industrial facility, two retail buildings and two (three and four storey) commercial buildings. The Department's detailed consideration of the freight village is summarised in **Section 5.9.3**.

A key aspect of the freight village is its accessibility to workers. While there is clear vehicular access between the various parts of the site, the Department is concerned that the site layout does not currently provide internal site pedestrian access within the site, including to the freight village, and would prevent staff from walking to and from freight village.

As such, the Department has recommended conditions requiring the Applicant to:

- include sufficient footpath space along access roads within the site
- include details of pedestrian paths in final site design and in the Operational Environmental Management Plan.

## **5.6 Noise impacts**

The noise environment surrounding the site is characterised by the local road network, including Moorebank Avenue, the South-Western Motorway and other transport infrastructure such as the Main Southern Railway Line and the East Hills Railway Line. Commercial and industrial areas around the site along Moorebank Avenue and Anzac Road also contribute to the local noise environment. The site is located adjacent bushland area and the Georges River to the west and residential receivers exist in the suburbs of Casula, Glenfield and Wattle Grove to the west, south west and east of the site respectively.

Noise was a key issue of the Concept Approval and the Department concluded the development was capable of addressing, managing and mitigating (where necessary) construction and operational noise impacts as part of future DA(s). FEAR 2.1 *Noise and Vibration* required the submission of an assessment of noise and vibration.

Demolition, importation of fill, earthworks, construction, traffic, plant and machinery would generate noise that has the potential to impact on the surrounding area. A Noise and Vibration Impact Assessment (NVIA) was submitted in support of the application, which includes an assessment of the existing background noise levels, noise generating activities, cumulative impacts and mitigation measures.

The NVIA predicts the construction of the development would take between 24 to 36 months and the construction of the development would be broken down into seven work periods (WP), as summarised below:

- WP-A, pre-construction
- WP-B, site preparation, including establishment of a temporary batch plant and materials crushing plant
- WP-C, construction of Moorebank Avenue diversion road
- WP-D, bulk earthworks, drainage and utility relocation and installation, including rock crushing and concrete batching
- WP-E, pavement works along Moorebank Avenue
- WP-F, construction and fit-out of warehousing, including concrete batching
- WP-G, miscellaneous construction and finishing works.

The NVIA has considered the nearest potentially affected noise-sensitive receivers, residences, industrial facilities and educational facilities and indicates noise monitoring was undertaken at four locations considered to be representative of all noise-sensitive receivers within the four predefined catchment areas of (refer to **Figure 17**):

- (R1) Wattle Grove – approximately 500 m to the east
- (R2) Wattle Grove North – approximately 500 m to the north
- (R3) Casula – approximately 900 m to the west
- (R4) Glenfield – approximately 1,600 m to the west.

Noise impacts were also considered at two specific sensitive receivers near the site, All Saints Senior College (S1) and Casula Powerhouse (S2).

The Department considers the locations of noise-sensitive receivers adopted for the purpose of the noise assessment are considered appropriate.

The NVIA references appropriate guidelines, policies and standards including:

- *NSW Industrial Noise Policy (INP) (2000)*
- *NSW Road Noise Policy (RNP) (2011)*
- *Interim Construction Noise Guideline (ICNG) (2009)*
- *Assessing vibration: a technical guideline (AVATG) (2006).*

The NVIA concludes that subject to a Construction Noise and Vibration Management Plan (CNVMP) prepared in accordance with the ICNG, an Operational Noise Management Plan (ONMP) and complaints management the proposal would not have significant construction or operational noise impacts.

Concerns were raised in public submissions about the potential noise impact arising from the construction and operational phases of the development.

The EPA provided a submission questioning the Applicant's assessment of sleep disturbance impact, justification for extended construction hours, whether an on-site concrete batching plant is warranted and the need for reversing alarms on vehicles. In addition, it recommended the Applicant should predict operational noise levels based on the entire Moorebank Precinct.



Figure 17: The site and nearby sensitive receiver locations (Source: MP 10\_0193 MOD 2)

Council recommended additional noise and vibration monitoring be undertaken during the construction and operational phases of the development to verify the accuracy of the predicted impacts and the mitigation measures required.

The Department engaged EMM to undertake an independent noise and vibration review to inform its assessment.

### 5.6.1 Construction noise

Construction activities are proposed to be undertaken during the ICNG's standard hours of construction (except as may be extended, as discussed at **Section 5.6.2**):

- 7 am to 6 pm Monday to Friday
- 8 am to 1 pm Saturday
- no work on Sunday or Public Holidays

In addition, works outside the standard (and extended) hours of construction are proposed. These works would be limited to those shown to be inaudible at sensitive receivers.

The NVIA confirms that the proposed construction works would require the use of a broad range of typical construction plant and equipment, including loaders, rollers, cranes, excavators, backhoes, crushing and batching plant, concrete agitators/pumps/saws, dozers, trucks, scrapers/graders, piling rigs, forklifts, earthmoving equipment and welders.

The NVIA has considered the rating background level (RBL) and predicted the noise management level (NML) for sensitive receivers and construction noise impact (**Table 9**).

**Table 9:** Predicted  $L_{Aeq\ 15min}$  construction noise levels during standard hours

Receiver	NML	Predicted Construction Noise Levels ( $L_{Aeq\ 15min}$ )				Exceedance
		WP-B	WP-C	WP-D	WP-E	
Wattle Grove	52	48	38	49	38	0 dB
Wattle Grove North	46	44	35	45	35	0 dB
Casula	51	46	41	47	41	0 dB
Glenfield	54	34	30	35	30	0 dB
S1	55	43	39	44	39	0 dB
S2	55	41	37	42	37	0 dB
I1	75	71	66	72	66	0 dB
I2	75	71	57	72	57	0 dB
I3	75	52	43	53	43	0 dB

The NVIA concludes that the proposed construction work would comply with the relevant NMLs and would therefore not result in adverse noise disturbance. In addition, the NVIA has assessed the human comfort vibration criteria noting that vibration intensive equipment is likely to be used during construction. The NVIA concludes, due to the distance to the nearest sensitive receiver (approximately 500 m), the impact of vibration would be negligible.

The Department has considered the Applicant's NVIA and is not satisfied that sufficient baseline monitoring data has been provided to justify the NVIA's adopted RBLs and corresponding NMLs. To address this, and to ensure that noise impacts are appropriately considered and managed/mitigated, the Department recommends conditions requiring:

- the Applicant undertake noise monitoring in accordance with the INP to confirm the RBLs for the nearest sensitive receivers prior to any works commencing on-site
- the preparation of a Noise Monitoring Report detailing the RBLs, any adjustments to the NMLs and any additional noise mitigation measures to be included within the CEMP
- construction be undertaken in accordance with the ICNG
- continuous noise monitoring at sensitive receivers during construction and at least 12 months following occupation of the site.

The Department recommends conditions that require the Applicant prepare and implement a CNVMP, in consultation with the EPA, detailing how construction noise and vibration will be minimised and managed. In addition, the Department also recommends a condition preventing any blasting on-site, due to the likely adverse noise impacts.

The Department considers the proposed INP standard hours of construction are appropriate and recommends a condition accordingly. In addition, the Department is satisfied works can be undertaken outside the standard (and extended) hours of construction where it would not have any adverse amenity impacts. The Department therefore recommends a condition requiring the Applicant to demonstrate that any works will be inaudible, comply with ICNG guidelines, be negotiated with affected receivers and be approved by the Secretary.

#### Batching plant

The Applicant has stated the provision of on-site batching plant and material crushing facilities is justified as they would reduce the total number of trucks on the local and regional road network during construction. In addition, the use of these facilities would be restricted to the standard hours of construction.

The Department agrees that provision of a batching plant and material crushing facilities on-site would result in the reduction of truck movements within the road network, which would have associated beneficial impacts of reducing noise, pollution and traffic congestion. To ensure these facilities do not have an adverse amenity impact, the Department recommends a condition

requiring the operation of the batching plant and material crushing facilities only occur during the standard hours of construction.

#### Tonal movement alarms

The Applicant has agreed to undertake reasonable efforts to ensure that any site-owned vehicles or mobile plant would not be fitted with tonal reversing alarms, and encourage tenants to replace tonal reversing alarms with broadband devices.

The Department has recommended a condition requiring construction vehicles are operated to minimise impacts and consider specifying non-tonal movement alarms in place of reversing beepers (where tonal alarms are not mandated by legislation).

### 5.6.2 Extended hours of construction work

The application seeks approval for the following extended hours of construction:

**Table 10:** Extended hours of construction work

	Standard Hours of Construction	Proposed Hours of Construction	Difference
<b>Monday to Friday</b>	7 am to 6 pm	6 am to 10 pm	+ 5 hours
<b>Saturday</b>	8 am to 1 pm	7 am to 6 pm	+ 6 hours
<b>Sunday and Public Holidays</b>	No work	No work	No change

FEAR 2.1 *Noise and Vibration* requires future DA(s) provide justification and detailed assessment of impacts where out of hours construction works are proposed.

Concerns were raised in public submissions about the impact of construction work outside the standard hours of construction.

The EPA also raised concern that the Applicant has not provided sufficient justification for the principle of out of hours construction work and recommended the construction hours be limited to standard hours.

The NVIA has assessed the impact of the proposed extended out of hours construction works and provides an analysis of predicted noise levels, which are summarised at **Table 11**.

**Table 11:** Predicted out of hours construction work noise levels

Receiver	NMLs		Predicted L <sub>Aeq</sub> , 15min Noise Levels	Exceedance
	Monday to Friday	Saturday		
Wattle Grove	42	47	43	1 dB(A)
Wattle Grove North	41	41	39	0 dB(A)
Casula	42	46	41	0 dB(A)
Glenfield	49	49	30	0 dB(A)

The NVIA concludes that the predicted worst-case construction noise levels would not exceed applicable NMLs, except for a minor 1 dB(A) exceedance in Wattle Grove at weekday evenings.

The Department is of the view that there are positive reasons for extending the hours of construction, including:

- reduction in the overall duration of the importation of fill and associated impacts
- transportation of fill outside peak periods and spread of truck movements throughout the day
- the proposed haulage routes avoid dense residential areas and the site is located adjacent to the Western Sydney Motorway.



The Department considers, that the extended hours of construction is acceptable in-principle, noting that further clarification of RBLs is required (**Section 5.6.1**), and agrees with the EPA that further information should be provided to justify the proposal in accordance with the ICNG. In addition, any extended hours of construction should include careful consideration of the types of activities and exclude particularly noisy works (such as rock breaking land-forming works etc), consideration of amenity impacts (e.g light spill) and establishment of complaints procedure.

In light of the above, the Department recommends conditions requiring:

- the preparation of an Out-of-Hours Work Protocol, including a detailed assessment of any extended construction hours, mitigation measures, and notification/complaints arrangements as part of the CNVMP
- the extended hours of construction be initially limited to a three-month trial period to allow for the appropriate monitoring of any impacts
- the exclusion of activities resulting in high-impact noise (including impulsive or tonal noise emissions) from the extended hours of construction.

### 5.6.3 Operational noise

The development is proposed to be operated 24 hours a day, seven days a week.

The NVIA has predicted the noise level at the closest sensitive receivers during operation (**Table 12**), including the potential sleep disturbance impact (**Table 13**).

**Table 12:** Predicted cumulative  $L_{Aeq\ 15min}$  (intrusiveness) operational noise levels of the proposal and the Stage 1 Approval

Receiver	Predicted ( $L_{Aeq\ 15min}$ ) Noise Level (dBA) and Operational noise criteria – intrusiveness (in red)				Exceedance
	Day	Evening	Night (calm)	Night (adverse)	
Wattle Grove	29 / 47	29 / 42	28 / 42	32 / 42	0 dB
Wattle Grove North	20 / 41	20 / 41	20 / 41	23 / 41	0 dB
Casula	31 / 46	31 / 42	31 / 39	35 / 39	0 dB
Glenfield	20 / 49	20 / 49	20 / 42	25 / 42	0 dB

**Table 13:** Predicted  $LA_{max}$  (sleep disturbance) at sensitive receivers

Receiver	Sleep Disturbance Screening Level (dBA)	Predicted ( $LA_{max}$ ) Noise Level (dBA)		Exceedance
		Calm	Adverse	
Wattle Grove	52	50	53	1 dB
Wattle Grove North	51	32	34	0 dB
Casula	49	32	35	0 dB
Glenfield	52	22	26	0 dB

The NVIA confirms the predicted operational noise levels have been prepared in accordance with the INP criteria, include calm isothermal and adverse meteorological conditions and represent the worst-case scenario. Sleep disturbance has been predicted based on pneumatic trailer brakes, the loudest noise source with the potential to cause sleep disturbance. The NVIA concludes the operation of the development would not have adverse amenity impacts on nearby sensitive receivers and the exceedance of 1 dBA (under adverse weather conditions) is negligible and does not warrant mitigation.

The Department has considered the predicted noise levels, and noting the discussion about RBL in **Section 5.6.1**, the Department has recommended a condition providing noise limits that closely relate to the predicted noise levels to protect the amenity of sensitive receivers. These limits reflect the predictions for all proposed operations and are achievable, and would provide appropriate noise limits for the amenity of the community.

Noting the concerns raised about potential sleep disturbance impacts, the Department considers it appropriate that monitoring occur following the commencement of operations to allow for any additional mitigation measures to address any unexpected impacts. The Department recommends conditions requiring the preparation of a Review of Sleep Disturbance Impacts report, in consultation with the EPA, including consideration of the  $LA_{max}$  predictions of the final design.

To further strengthen the protection of the amenity of nearby sensitive receivers, the Department also recommends conditions requiring the preparation and implementation of an ONMP (which would form part of the OEMP) and an Operational Noise Report, including noise monitoring following the occupation of 50% and 100% of the warehouses. In addition, conditions are recommended requiring clarification of mechanical plant and other potentially noisy operational equipment.

#### **5.6.4 Traffic noise**

The nearest residences potentially affected by an increase in project-related traffic are located adjacent to the M5 Motorway. Given the significant level of existing traffic on this roadway, the predicted increase in total road traffic noise level due to project-related traffic is considered to be negligible and well within the relevant criteria specified in the RNP.

Notwithstanding the above assessment, the Department recommends the following conditions to ensure road traffic does not have any adverse noise impacts:

- ensuring traffic movements on public roads aim to limit any increase in existing road traffic noise levels to 2dB for both day and night
- preventing the use of vehicle compression brakes
- the monitoring of heavy vehicles leaving the site (by CCTV) and prevention of road freight vehicles using Moorebank Avenue south of the East Hills Railway corridor.

### **5.7 Stormwater and Flooding**

The Department commissioned an independent expert review, by Alluvium, of the Applicant's proposed permanent stormwater management systems and management of stormwater during construction as clearing of the entire site, and importation and stockpiling of 600,000m<sup>3</sup> of fill presents an erosion risk.

With regard to design of the stormwater system, it is acknowledged that, while the information presented in the EIS and Consolidated Assessment Clarification Responses does not represent detailed design, the information provided was not sufficiently detailed and required clarification in order to fully assess the impacts of the development. In addition, the proposed design of onsite detention (OSD) basins and stormwater quality treatment systems is not consistent with Water Sensitive Urban Design (WSUD) Principles and does not represent current good practice. As part of the assessment process, the Department met with Liverpool City Council to discuss the stormwater system design in relation to Council's plans, policies and specifications. In summary, Council does not support the Applicant's approach to stormwater management.

In view of this, the Department has recommended a suite of soil and water management conditions specifying design, management and monitoring criteria and requirements, in relation to earthworks, flooding, existing stormwater infrastructure and stormwater system design.

#### **5.7.1 Earthworks**

The Department's recommended conditions include requirements that only excavated natural material is imported to the site and that the following detailed plans are prepared to manage potential impacts:



- Fill Management Plan to ensure the volume and type of fill imported to site complies with the recommended conditions of approval
- Stockpile Management Plan to ensure dust suppression and stabilisation of stockpiled fill
- Detailed Erosion and Sediment Control Plan.

### 5.7.2 Flooding

Part of the MPE site is mapped as flood prone in the Liverpool LEP 2008 and it was estimated in the EIS that there is currently approximately 10,500m<sup>3</sup> of flood storage within the site. The proposed raising of the site would reduce the site flood risk but the loss of flood storage has the potential to result in downstream impacts. Hence, the recommended conditions include a requirement for the Applicant to demonstrate that there are no impacts on Anzac Creek flood levels or flood extents due to filling of the MPE site.

Parts of the M5 motorway either side of the interchange with Moorebank Avenue and Moorebank Avenue to the south of the site are also mapped as flood prone. In a major flood event, access routes to and from the site are likely to be limited and the Department has recommended a condition for the preparation of a Flood Emergency Response Plan.

### 5.7.3 Existing Stormwater Infrastructure

The proposed stormwater design relies on disposal of stormwater via existing stormwater infrastructure through adjoining properties: the Defence Joint Logistics Unit (DJLU) site, the 'Boot Land' and the MPW site.

The north-eastern portion of the MPE site drains to an existing box culvert into a channel in the adjacent DJLU site. It was identified by the Applicant that the existing box culvert was blocked by sediment and other debris during an inspection. The south-eastern portion of the MPE site drains through a smaller culvert across the eastern site boundary and under the unmade Greenhills Road into an existing minor tributary of Anzac Creek within the Boot Land.

The western portion of the MPE site currently grades to the eastern side of Moorebank Avenue where runoff would currently be collected and drain to the north towards an existing culvert crossing Moorebank Avenue. The inlet to the existing culvert under Moorebank Avenue is covered by square steel mesh grates. Downstream overland flow paths are also partially blocked by existing security fencing. This culvert discharges into an existing concrete lined channel within the MPW site which discharges to the Georges River. It appears that lower sections of this channel have collapsed due to what appears to be erosion in the channel.

The Department's recommended conditions include ensuring that there are easements in place for maintenance of these stormwater systems on adjacent lands and that they are upgraded to design standards. As the DJLU has objected to any construction works on their land, upgrades for this discharge point must be constructed within the MPE site. In addition, as stormwater discharges to the Boot Land, the recommended conditions include use of natural materials for outlet scour protection.

### 5.7.4 Stormwater System Design

It is proposed that the MPE site sub-catchments drain to four OSD basins (Basins 1, 2, 9 and 10) to manage flooding for the separate sub-catchments. Basins 1 and 2 drain to Anzac Creek, and Basins 9 and 10 to the Georges River (through MPW). The proposed basin locations are shown on Figure 10. Concentration of a large proportion of flow from MPE (and MPW) into the one engineered channel to the Georges River was identified by the Department's independent expert as a risk due to the potential for blockages. A more appropriate design outcome would be to distribute flows and construct a wider channel with battered embankments more representative of

a natural creek form that is more representative of current good practice. This more natural form also applies to OSD basin design.

The proposed basins are essentially long, relatively narrow structures (basin 10 adjacent to Moorebank Avenue is approximately 1.5km long) with vertical concrete walls and are up to 3 m deep. This design would require the installation of secure safety fencing and is not considered a desirable outcome from an urban design or safety perspective.

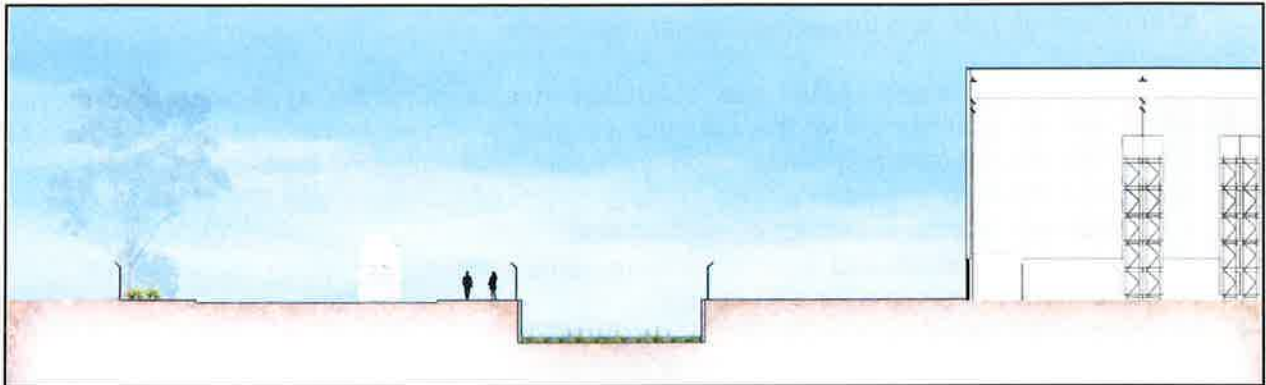


Figure 18: Proposed OSD Design (Source: Applicant's EIS)

In addition, the proposed stormwater treatment systems (filter material and plants) are located in the bottom of the OSD basins. The Department's independent expert noted that this is not recommended, nor is it good practice, for stormwater treatment systems be in the base of large OSD systems, due to:

- potential for these systems to be scoured with all the flows from the upstream catchment, and unusually large volumes of sediment settling on top of the systems
- potential for these systems to be smothered with sediment
- the fact that these systems would be the lowest point in the OSD basin, as well as the lowest outlet for water means that they would receive greater flows than they can be designed for.

Hence it was recommended that all stormwater quality elements be installed upstream of stormwater detention basins and integrated across the site into the landscape which is consistent with contemporary and accepted practice for Water Sensitive Urban Design (WSUD).

The Department's recommended conditions require the preparation of an amended Stormwater Management Plan demonstrating WSUD principles, along with operational monitoring and maintenance requirements to ensure the system would perform as per design to meet appropriate water quality objectives and ensure protection of the ecological values of Anzac Creek.

## 5.8 Air quality impacts

Air quality was a key issue of the Concept Approval and the Department concluded the development was capable of addressing, managing and mitigating (where necessary) construction and operational air quality impacts as part of future DA(s). FEAR 2.1 *Air Quality* required the submission of a comprehensive air quality impact assessment for each stage of the development.

The proposed construction and operation has the potential to generate the following air quality impacts:

- dust or particulate matter (PM) generated during the demolition, site clearing and importation of fill and earthwork activities, such as rock breaking
- combustion of diesel and other fossil fuels during operation.

Concerns were raised in public submissions about the impact of the proposal on air quality during construction and operational phases.

To minimise fugitive dust, the EPA stated that no more than 22,000 tonnes of fill should be received at the site per day. In addition, it recommended:

- an Air Quality Management Plan (AQMP) be prepared and all works during construction and not cause/emit offensive odour beyond the site boundary
- during operation, the development be carried out and maintained to minimise the generation or emission of dust, and trucks must cover their loads.

An Air Quality Assessment (AQA) was submitted in support of the application and provides modelling and an assessment of the potential air quality related impacts of the proposal. The AQA recommends the following construction and operational mitigation measures:

- inclusion of the following into CEMP:
  - preparation of procedures for controlling dust
  - roles responsibilities and reporting requirements
  - contingency measures for dust control
- inclusion of the following into 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.

### 5.8.1 Construction Impacts

The AQA modelling indicates that the predicted construction phase emissions (including cumulative impacts with MPW site) would comply with all relevant impact assessment criteria. In addition, the predicted increase in annual average PM<sub>10</sub>, PM<sub>2.5</sub>, total suspended particulate matter and dust deposition would be minor, when measures against existing background conditions.

The Department considers potential air quality impacts arising during construction, demolition, the importation and movement of spoil, including activities such as rock breaking, can be managed and mitigated and recommends conditions requiring:

- the maximum amount of fill received per day be limited to 22,000 tonnes
- air quality monitoring be undertaken during early works, fill importation and construction
- best practice management measures be implemented to minimise dust generation and deposited dust must not exceed 2g/m<sup>2</sup>/ month
- preparation of an AQMP in accordance with EPA's recommendations
- preparation of a CEMP including a Spoil Management Plan and the Applicant's mitigation measures.

### 5.8.2 Operational Impacts

The AQA modelling indicates that operational air quality impacts arising from the development would be low and the minor incremental increases in air pollutants at surrounding residential receivers would be imperceptible.

The Department considers, subject to the Applicant's mitigation measures, the proposed operation of the development, including warehousing, freight village and associated infrastructure, would not have a significant impact on air quality. In addition, the Department recommends conditions requiring:

- the development not to cause or permit the emission of offensive odour (as defined by the POEA Act)
- all equipment be installed and operated in accordance with best practice requirements
- the preparation of an OEMP including the Applicant's mitigation measures.

The Western Sydney region is frequently subject to the heat island effect where localised warming occurs due to dark coloured and paved surfaces, buildings and emissions. Conditions imposed by the Commission in relation to Stage 1 seek to minimise air quality impacts associated with the operation of the port shuttle by way of achieving best practise operation of the rail shuttle in relation to emissions. The approval requires consultation with TfNSW in relation to the preparation of a best practise guidelines relating to locomotive emission technology(s).

The Department notes the MPE Stage 2 site is substantial in size, being almost 67 ha, and considers the correct selection of building and pavement material, and landscape design has the potential to deliver good outcomes in relation to heat load. This is considered in further detail under **Section 5.9.1**.

## 5.9 Built form and land uses

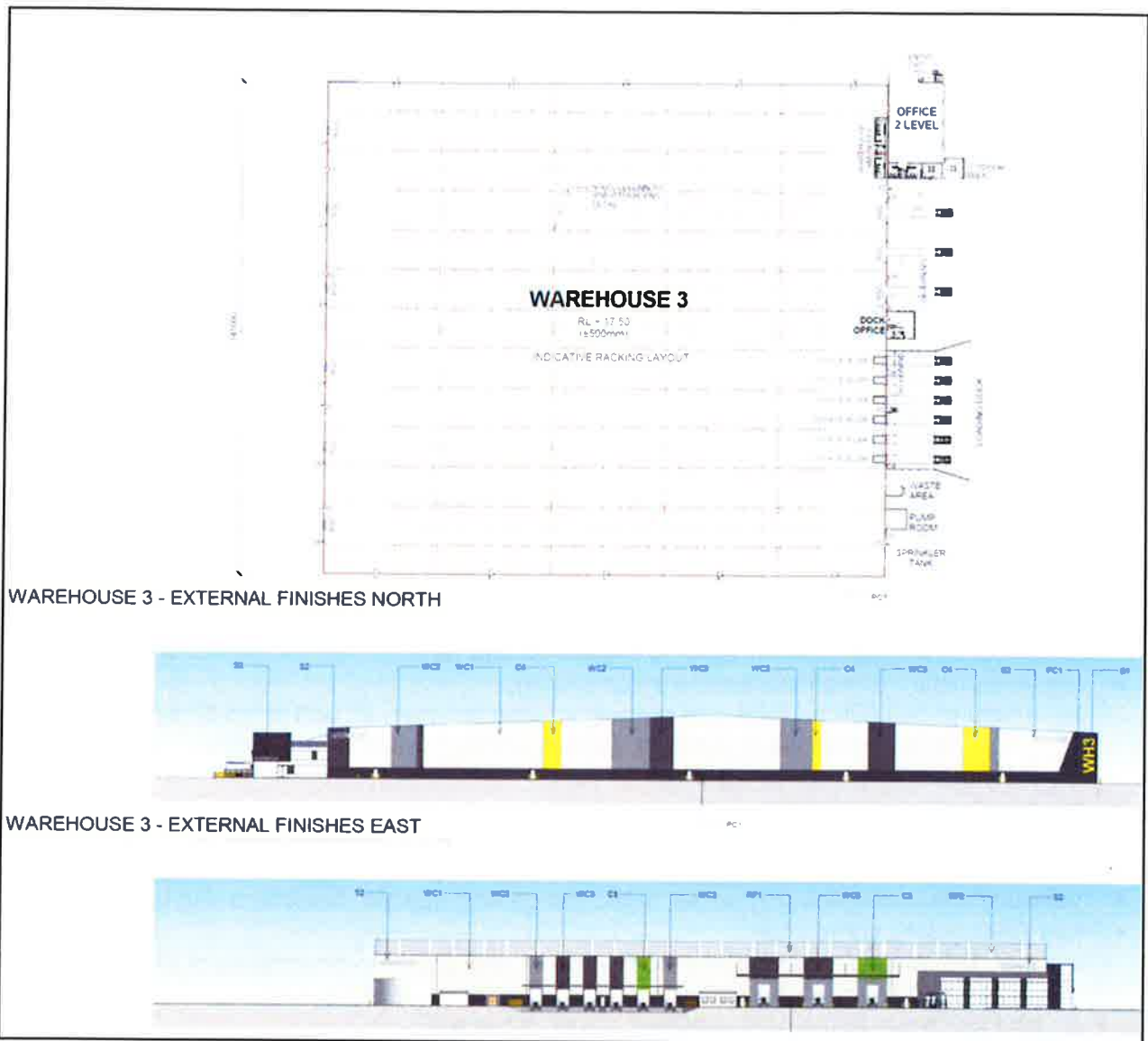
Built form was a key issue of the Concept Approval and the Department concluded the built form impacts of the development were acceptable, provided buildings are appropriately designed and screened and the visual impacts of the importation of fill are mitigated. FEAR 2.1 *Visual Amenity, Urban Design and Landscaping* requires future DA(s) include an assessment of visual impacts, include details of landscaping and screening / mitigation measures.

The proposal seeks approval for (refer to **Figure 19 and 20**):

- the construction of eight warehouses comprising:
  - a total of 300,000 m<sup>2</sup> GFA and ranging in sizes between 20,350 m<sup>2</sup> to 57,800 m<sup>2</sup>
    - including a total of 2,100 m<sup>2</sup> GFA of ancillary warehouse offices
  - maximum building height of 21 m
- the construction of a freight village comprising:
  - a total of 8,003 m<sup>2</sup> GFA for commercial, retail and light industrial uses
  - maximum building height of 15 m
- vehicular circulation, loading docks, 1,442 car parking spaces, hardstand and landscaping
- four OSD basins comprising:
  - two OSD basins located at the north-eastern and southern boundaries of the site including communicating north/south OSD channels/basins through the site
  - an OSD basin at the north-western corner of the site
  - an OSD basin along the western boundary of the site adjacent to Moorebank Avenue.

Concerns were raised in public submissions about the importation of fill to the site and the potential visual impact resulting from the increase of land levels and light spill during construction and following completion of the warehousing.

Within an area of 67ha, the GANSW has recognised the potential of the site to make a significant contribution for Sydney's Western City District to good practice industrial design. However, the GANSW has raised concerns that the current proposal has limited provision for open space, has low streetscape amenity and tree canopy cover, poor OSD design and insufficient Water Sensitive Urban Design (WSUD) features, creates an urban heat island effect, removes important canopy trees, insufficient landscaped amenity for employees and lacks clear pedestrian/cycle connections/facilities. The GANSW has made a number of design suggestions to ensure that the facility can achieve good design.



**Figure 19:** Typical proposed warehouse layout / design (Base source: Applicant's RfS)

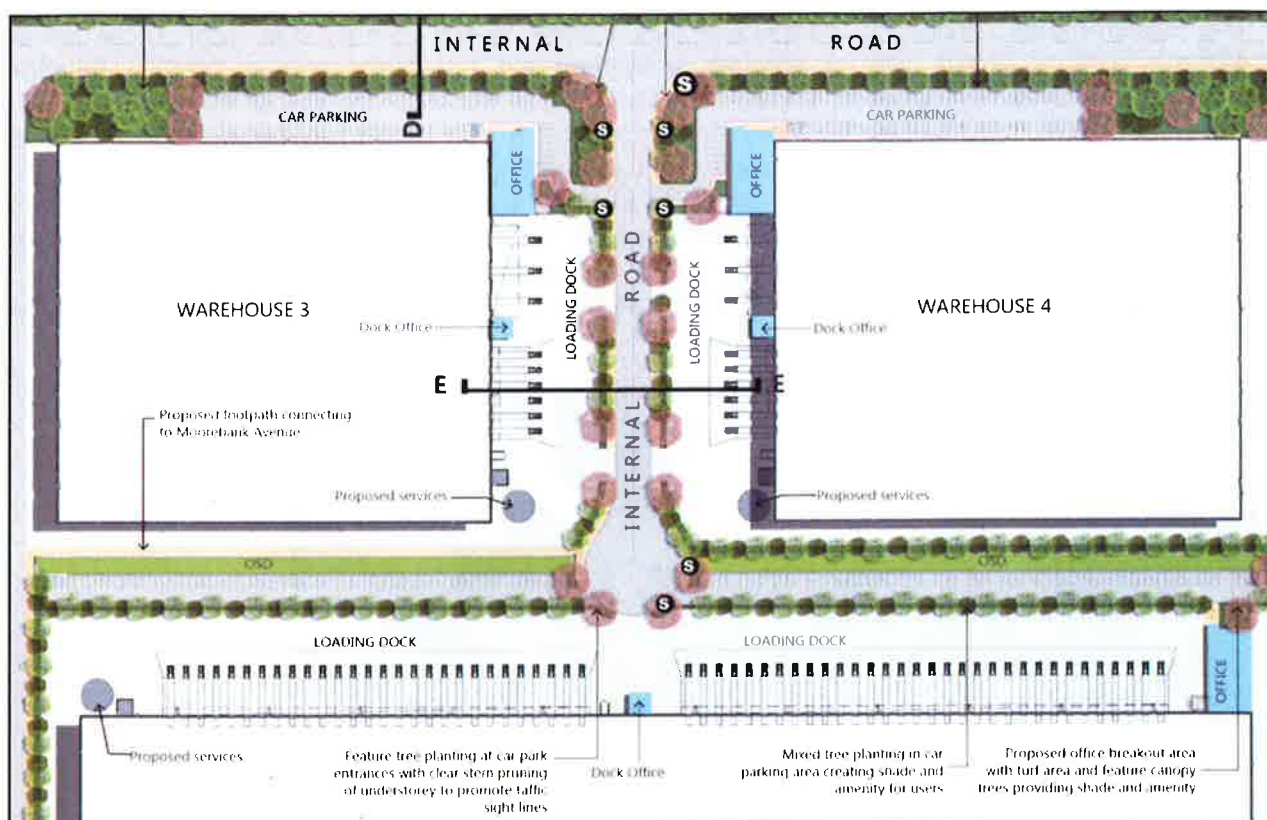


Figure 20: Typical proposed landscaping (Source: Applicant's RtS)

The Department considered the key issues associated with the built form assessment are:

- urban heat effect
- visual impact
- freight village uses.

### 5.9.1 Urban Heat Island Effect

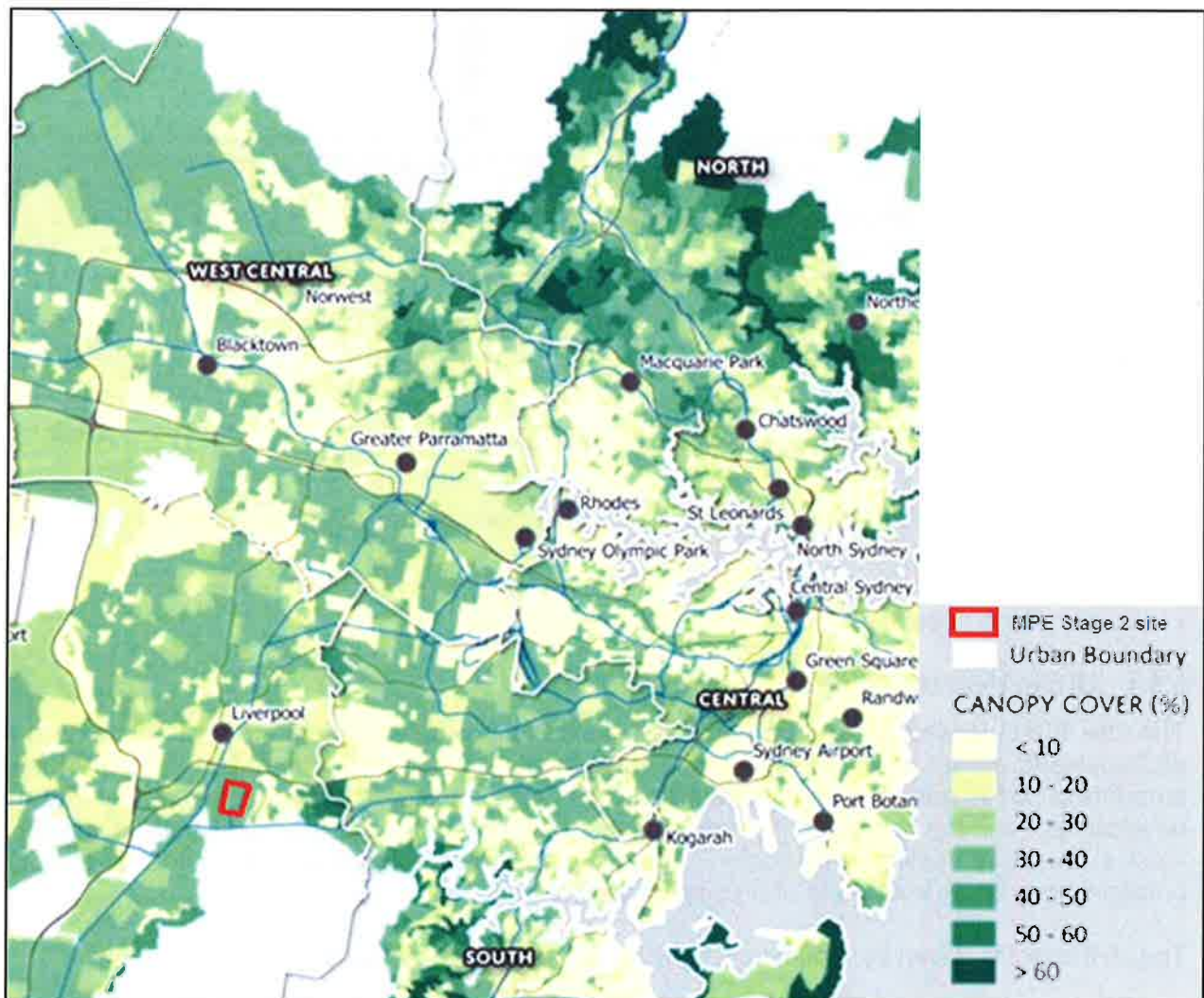
The UHI Effect is where the urban area is considerably warmer compared to surrounding rural and bushland areas. The UHI Effect is localised warming due to an increased amount of large amounts of paved and dark coloured surfaces like roads, roofs and car parks as a result of urban development and the consequently reductions in the amount of vegetation and water available to allow evaporative cooling and shading. Reducing and responding to the UHI Effect, is a rapidly emerging priority for both State and Local Government.

The UHI effect is driven by a number of key factors relevant to the project:

- a high percentage of solid surfaces that absorb, trap and reradiate heat. e.g. asphalt and concrete.
- a high percentage of solid surfaces that prevent rainwater soaking in, reducing water available for plants, which in turn reduces evaporative cooling
- limited vegetation for reduces shading and cooling through evaporation from plants through leaves
- urban development form and layout that traps heat, stifling breezes and cross flows
- construction materials which hold heat and have low reflectivity as these materials absorb, trap and re-radiate heat
- heat production from the activities of people produced by vehicles, plant and air conditioners etc



The Governments' priority to addressing UHI Effects within Sydney has been focus on the western Sydney region with a number strategies and programs now in place. The State Government's Greener Places and the Five Million Trees Initiative are two of these initiatives. In November 2017, the Minister for Planning announced a new target has been set to more than double tree canopy cover across Sydney, from an existing 16.8% to 40% by 2030. This 20-year target aims to increase urban tree cover to provide shade and shelter, improve air quality, improve visual amenity, and cool local environments. To achieve this, trees will be planted across Sydney, but there will be a particular focus on west and south-west suburbs, including in Liverpool LGA. **Figure 21** identifies MPE site as part of the State Government's targeted future canopy cover.



**Figure 21:** Target Future Canopy Cover (Base Source: [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au))

Penrith Council's Cooling the City Strategy, Blacktown City Council's Cool Streets project and Parramatta Council's heat mapping project undertaken through the Smart City program are examples of western Sydney Councils' endeavours to reduce UHI through landscape, water sensitive design, building design and layout, as well as building and pavement material use.

As discussed earlier, with an area of 95 ha the GANSW has recognised the potential of the MPE site to make a significant contribution for Sydney's Western City District to good practice industrial design. GANSW have raised concern regarding sites contribution to the UHI effect. The GANSW has made a number of design suggestions to ensure that the facility can achieve good design including:



- better application of WSUD principles to provide opportunities for water evaporation and plant irrigation
- increased canopy tree planting and screen landscaping around buildings and roads to increase hard stand and building shading and increased evaporative processes
- selection of building and pavement materials to reduce heat absorption and promote reflectivity of heat during the day
- consideration of plant and machinery to reduce heat generation.

Appropriate conditions of consent have been recommended requiring preparation of an UHI Effect Strategy.

### 5.9.2 Visual impact

The proposed construction of warehouses, freight village and the importation of fill to the site (which would result in the increase of the level of the site and edge effects at the edge of site filling, refer to **Figure 22**) have the potential to result in visual impacts.

Indicative views of the development are provided at **Figure 22** to **Figure 25**.



**Figure 22:** Indicative view looking north-east (Source: Applicant's EIS)



**Figure 23:** Cumulative view (MPW and MPE) looked east from the open space to rear of properties fronting March Parade, Casula (Base source: Applicant's EIS)



**Figure 24:** View looking west across the DJLU site towards the MPE development from the western side of Anzac Creek reserve (Base source: Applicant's EIS)





**Figure 25:** View looking west towards the MPE site from Wattle Grove (Source: Applicant's EIS)

The Department notes, due to the importation of fill and associated raising of the level of the site, the development would be more visible (approximately an average of 2 m higher) than if it were built at-grade. This results in the upper part of the development rising above the surrounding established tree canopy on neighbouring sites.

The Department notes the proposed layout and design of the development appears has been driven by functional means, and the substantial size and extent of the precinct results in the creation of significant expanses of hard-built area (buildings, hardstand, roads etc) as shown at **Figure 10**.

The Department has carefully considered the concerns raised in public submissions and by the GANSW and agrees the development, in its current form, is likely to result in some visual impacts above the existing tree line as a result of the lack of adequate on-site landscaping and amenity. The Department considers that it is important that the proposal delivers additional tree cover throughout the site, particularly in order to reduce the UHI effect, as discussed at **Section 5.9.1**, and to provide visual screening.

Notwithstanding the above concerns, the Department considers that, subject to reasonable amendments to the design of the proposal, impacts would be appropriately mitigated. The Department therefore recommends conditions requiring the development be amended and design master plans (including landscaping plan) be provided to improve visual amenity, pedestrian movement, tree canopy, employee amenity, contextual fit of the development. This could include:

- provision of trees within warehouse car parking and in place of extensive areas of hardstand (not needed for circulation)
- increased tree planting to provide screening of the development, including planting of embankments / batters / retaining walls
- greater building setbacks from roads to allow for increased landscaped areas
- provision of green / biodiversity roofs
- provision of landscaped outdoor eating and seating areas and shading for each warehouse
- provision of a pedestrian network connecting the warehouses to the freight village
- work travel plans including bicycle parking and end of trip facilities.

In addition to the above, and noting the extent to hard-built areas, the Department also agrees with the GANSW that the development does not take sufficient steps to include WSUD principles into the overall design of the proposal. The Department therefore recommends a condition

requiring the development be amended to better address WSUD. The Department has considered the broader necessary improvements to OSD basins and infrastructure at **Section 5.7.4**, as informed by the advice of the independent expert stormwater review.

The Department concludes subject to the above conditions, improvements to WSUD and OSD infrastructure, the overall layout, design and appearance of the development and visual impact would be improved so that it would better integrate into the immediate surrounding area.

#### Light spill

The Applicant has stated lighting would be required during the construction phase of the development to illuminate ancillary facilities, plant and equipment. However, it asserts that as lighting would be localised, temporary and appropriately designed it would have minimal impact on surrounding sensitive receivers. During operation the development would comply with Australian Standard AS 4282 (INT) - *Control of Obtrusive Effects of Outdoor Lighting*.

To ensure the development does not result in adverse amenity (and biodiversity/fauna) impacts due to light spill, the Department recommends conditions requiring:

- the development be operated in accordance with the Australian Standard
- construction and operation also address the following best practice lighting design principles:
  - eliminate upward spill light
  - direct light downwards, not upwards
  - use shielded fittings
  - avoid 'over' lighting
  - switch lights off when not required
  - use energy efficient bulbs
  - use asymmetric beams, where floodlights are used
  - ensure lights are not directed towards reflective surfaces
  - use warm white colours.

The Department notes the proposed improvements to site-wide landscaping (discussed above) would provide additional screening and would further reduce lighting impacts, once fully mature.

Subject to the above conditions the Department considers the proposal would not result in unacceptable impacts resulting from light spill.

The Department has considered building signage, including illuminated signage, at **Section 5.14**.

#### **5.9.3 Freight village use**

The proposal seeks approval for an increased range of land use types within the freight village in addition to the uses previously approved under the concept plan. The applicant seeks approval for retail, commercial and light industrial uses to operate from the freight village (**Figure 26**).

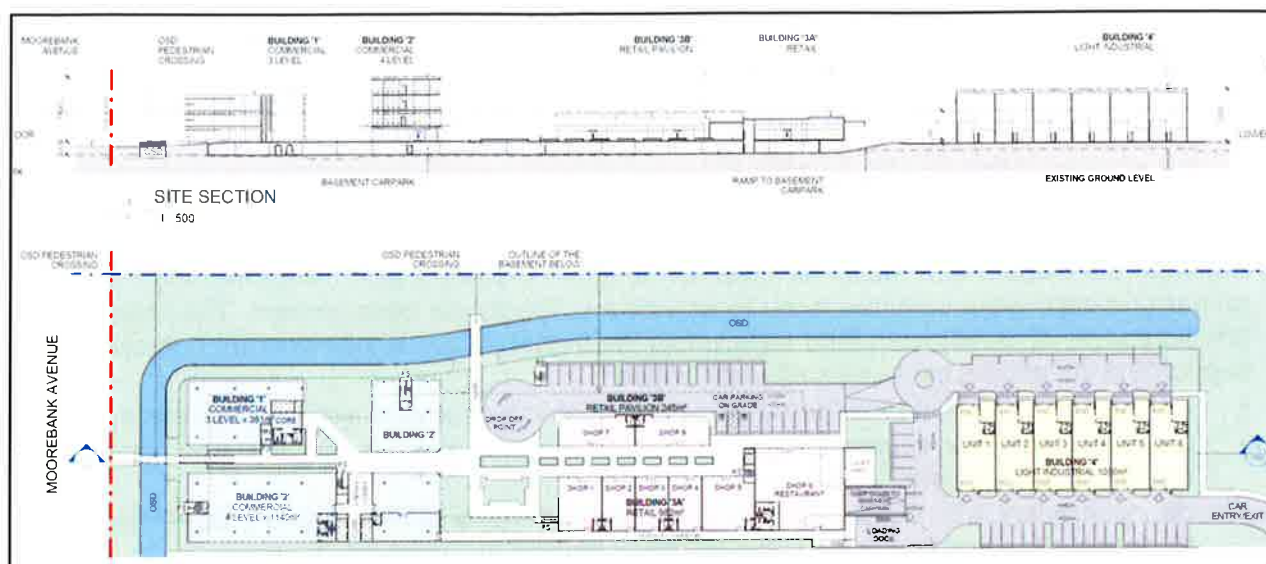


Figure 26: Proposed freight village layout, use and indicative design (Source: Applicant's RtS)

The use of the freight village site was a key consideration in the Department's assessment of the Concept Plan. In finalising its recommendation, the Department considered further information provided by the Applicant, which concluded that the freight village was a term to describe land uses for ancillary support services for the 'Value-Adding Terminal' being an:

*'integrated logistics network and exchange between goods transported and distribution, with the inclusion of on-site services such as bonded facilities, warehousing, repairs and cleaning, customs and insurance, and localised worker amenity'. [The Applicant concluded that] 'the provision of the Freight Village within the SIMTA proposal is expected to be primarily to service employees of the intermodal terminal and warehousing facilities. It is not envisaged that a large proportion of 'external traffic' would use the Freight Village facility, nor is it SIMTA's intention to preclude the use of the Freight Village by external sources'.*

The further information submitted by the applicant outlined that the freight village would not simply be a retail offering, but a range of different uses to meet the needs of the tenants, workers population and visitors to the Intermodal development. Uses suggested in the original concept plan application include:

- site management office
- site security offices
- commercial office space that may be occupied by distribution tenants of the intermodal requiring a separate office suite
- commercial office space that may be occupied by tenants that do not have any distribution capability within the intermodal but may offer aligned services
- meetings rooms and conference facilities available for hire by the intermodal tenants, used for external training, or other purposes
- minor retail and business services such as a business service centre, convenience stores, bank(s), post office, newsagent etc
- minor food and beverage facilities such as a café, restaurant, other food and beverage outlets
- possible inclusion of some sleeping facilities or limited short-stay accommodation
- possible inclusion of a Service Station.

The above freight village concept provided by the Applicant guided the Department's consideration and recommendation for approval of the freight village at the concept stage. The Department concluded that the primary purpose of the freight village should be to provide



support for the intermodal development, provided a nexus with the intermodal or provide aligned services to the intermodal. Consequently, the:

- Concept Plan approval development description limits the freight village to uses *ancillary to the site and operational services*
- the recommended FEARs for MPE Concept MOD 2 require future DA(s) to demonstrate how compliance the concept approval will be achieved

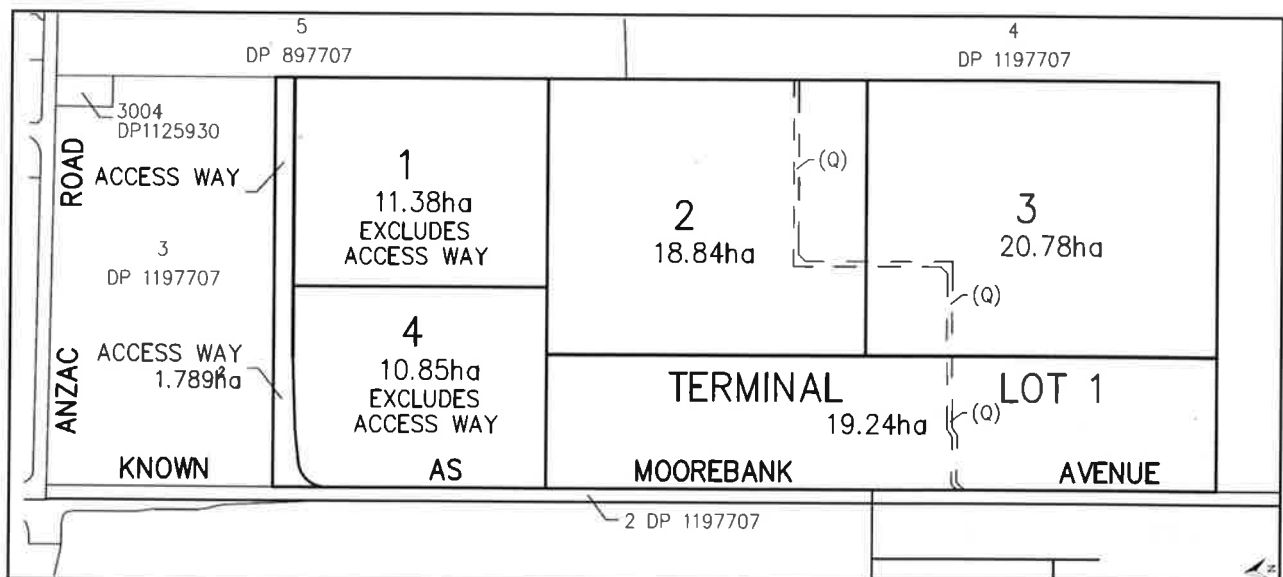
Although the Department raises no objection to some passing traffic using the freight village, its primary purpose must continue to be to service the intermodal development. The Department is not supportive of unrestricted land uses within the freight village whose primary purpose is not to support the intermodal because such uses would:

- provide a source of independent traffic generation not otherwise assessed by this application
- present a potential source of land use conflict and/or result in impacts that would require additional assessment
- be inconsistent with Clause 12(1) of the State and Regional Development SEPP requires that the freight village related to the same operation and not an independent use.

Accordingly, the Department recommends a condition requiring that prior to each occupation, details of each tenancy within the freight village be provided to the Department outlining details of the proposed activity and demonstrating the activity provide support for the intermodal development (functions, tenants and/or workers) , provide a nexus with the intermodal (functions, tenants and/or workers) or provide aligned services to the intermodal (functions, tenants and/or workers).

## 5.10 Subdivision

The site is currently leased from the Australian Government under a 99 year lease. Under the Conveyancing Act 1919 when a lease term is greater than 5 years, that part of the land which is affected by the lease must be identified by a deposited plan of subdivision. The proposal seeks approval for the subdivision of the MPE site for the purpose of segregating for lease each of the intermodal components, the intermodal terminal, the warehousing and distribution facilities, as well as the freight village. The draft subdivision plan is provided at **Figure 27**.



**Figure 27:** Proposed subdivision of the MPE site (Source: Applicant's EIS)

The MPE Intermodal development constitutes SSD development where development constitutes *warehouses or distribution centres (including container storage facilities) at one location and related to the same operation*. The subdivision of the MPE site and the leasing of the individual intermodal

components fragment the intermodal operations and could reduce opportunities to manage the intermodal development as a single operation.

The Department also notes the ongoing relationship between the intermodal terminal, the freight village (as discussed in **Sections 5.5.2** and **5.9.3** above) and the intermodal warehousing is critical to the functioning of the intermodal development, particularly in relation to the reliance on the rail component of the intermodal terminal for freight movements. This relationship is expressed as part of the Concept Plan Approval. In particular, Term of Approval 1.12 requires: The warehousing and distribution facilities must only be used for activities associated with freight using the rail intermodal. The dependency of the freight village on the warehouse and terminal functions of the precinct is also recognised.

The Department considered subdivision as part of MOD 2 and concluded that the future subdivision of the site was acceptable in-principle and FEAR 2.1 *Subdivision* requires the details of subdivision include identification of the legal entity(s) responsible for the holistic management of the site as an intermodal precinct, including provision and maintenance of such things as site services as well as a number of critical management and mitigation obligations.

The applicant has confirmed it intends to construct the development prior to subdivision occurring, thereby bringing certainty to the future development. In relation to the subdivision layout, the Department notes the absence of inter allotment easements on the plan to support access, stormwater (other than the main stormwater pipe) and utility services required to support the proposed development. The Department also notes that the east/west access way shown on the plan to the north of Lots 1 and 4, has been shown on the plan as future access but does not form part of the current Stage 2 application. Accordingly, the access way should not form part of the approved subdivision of the development.

A condition has been recommended requiring an amended final subdivision plan be submitted for the Secretary's approval showing all dimensions, deleting the east/west access way and showing required easements to service the development and provide ongoing connectivity throughout the intermodal precinct in relation to:

- internal vehicle and pedestrian access between all intermodal elements
- utility services
- drainage.

The applicant advises that the subdivision is required to enable long terms leases to be provided in relation to the occupancy of buildings and not for the purpose of sale, and that it intended that it be managed as a single entity. The applicant provides details in relation to the approach to the management of the site through an Operational Environmental Management Plan (OEMP). However, evidence is required demonstrating that overarching management of the site will be facilitated by a legal framework supporting delivery and compliance with the OEMP in relation to the subdivision and or leasing of the sites.

The MPE intermodal development is located adjacent land with a high bushfire risk, containing native vegetation with biodiversity significance and discharging runoff into Georges River and Anzac Creek. The site is also located in in close proximity to sensitive residential receivers and the Stage 1 approval included a commitment not to store or receive dangerous goods in quantities greater than the hazardous material screening threshold under SEPP 33.

Operation of the intermodal will require long term ongoing holistic management to ensure the following elements are provided and maintained or the impacts are mitigated and/or managed:

- bushfire hazard
- provision of emergency services and access (fire hydrants, evacuation plans, chemical manifests etc)

- fencing
- signage
- weed management
- landscaping management
- noise
- air quality
- water quality and quality
- water recycling
- ESD
- visual impacts
- light spill from common areas and individual tenancies
- materials handling below the Hazards SEPP screening threshold.

A condition of consent is recommended requiring that details of the legal framework and/or mechanism that will support the delivery of required development elements are provided and maintained, and also how impacts are mitigated and/or managed during operation following subdivision and leasing.

## 5.11 Biodiversity

The application would facilitate development that would require clearing of all vegetation within the site boundary, including threatened ecological communities. The threatened ecological communities identified as being directly impacted are summarised in Table 14.

**Table 14:** Areas of direct impact by plant community type and TEC (Source: Applicant's revised BAR)

Plant Community Type	Equivalent threatened ecological community	Conservation status	Area of Impact		Total Area of impact
			MPE (Excluding Moorebank Avenue widening)	Moorebank Avenue widening	
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 (BC Act) Endangered (EPBC Act)	0.1 ha	3.73 ha	3.74 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 (BC Act) Critically Endangered (EPBC Act)	0.05 ha	0 ha	0.05 ha
Parramatta Red Gum woodland on moist alluvium of the Cumberland Plain, Sydney Basin Bioregion	Castlereagh Swamp Woodland	Endangered (BC Act)	0 ha	0.22 ha	0.22 ha
Forest Red Gum - Rough-barked apple grassy woodland on alluvial flats of the Cumberland Plain Sydney Basin	River-flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and Southeast Corner bioregions	Endangered (BC Act)	0 ha	0.59 ha	0.59 ha

The Applicant acknowledges that the overall proposal would *'result in the removal of structurally intact woodland, highly disturbed areas with scattered trees and landscaped vegetation providing habitat for fauna'*. The clearing of this vegetation will result in the loss of sheltering, foraging, nesting and roosting habitat to a variety of fauna, including threatened fauna, and nine trees that are hollow bearing or have bark fissures.

The Applicant has submitted a Biodiversity Assessment Report (BAR) in support of the application and includes an assessment of biodiversity impacts and offset requirements for the MPE Stage 2 site and Moorebank Avenue (previously part of the MPW site and now included within the MPE site boundary). In addition to identifying direct impacts on a number of species, the BAR identifies direct impacts on a number of species not previously known to occur within the MPE stage 2 site. These species impacts are summarised in **Table 15**.

**Table 15:** Impacts to threatened flora species (Source: Applicant's revised BAR)

Threatened Flora Species	Conservation status	Number to be cleared MPE (Excluding Moorebank Avenue widening)	Number to be cleared Moorebank Avenue widening	Total Number to be Cleared	Percentage of known/estimated population on the Amended Proposal site + Boot Land to be cleared
<i>Grevillea parviflora</i> <i>subsp. parviflora</i>	Vulnerable (EPBC Act) Vulnerable (BC Act)	0	79 plants	79 plants	0.58%
<i>Hibbertia puberula</i> <i>subsp. puberula</i>	Not listed (EPBC Act) Critically Endangered (BC Act)	88 plants	22 plants	110 plants	17%
<i>Persoonia nutans</i>	Endangered (EPBC Act) Endangered (BC Act)	4 plants	8 plants	12 plants	6%

The Applicant proposes to provide offsets for impacted flora species within the Boot Land adjoining the site.

The assessment of ecosystem credit species associated with Plant Community Type (PCTs) indicated that two threatened fauna species (Eastern Freetail-bat (*Mormopterus norfolkensis*) and Little Lorikeet (*Glossopsitta pusilla*)) have a high likelihood of occurrence and a further 10 species have a moderate likelihood of occurrence. Ecosystem credits would be required to offset the impacts to these threatened fauna species.

The Department notes the approved Concept Plan envisaged the clearing of vegetation from the site to facilitate the proposal and requires the provision of appropriate biodiversity offsets. In addition, the Department understands that the Applicant has lodged a biobanking application with OEH and is in ongoing discussions about the delivery of appropriate offsets.

The Department acknowledges that the proposal would result in the removal of existing on-site vegetation and the importation of fill to the site may have impacts on the immediate adjoining biodiversity values, including water courses. However, in light of the above, and subject to the recommended environmental conditions at **Sections 5.4, 5.7 and 5.9**, the Department considers that the biodiversity impacts can be appropriately managed and mitigated.

Overall, the Applicant has assessed the following offset requirements the development:

- 171 ecosystem credits for Hard-leaved Scribbly Gum – Parramatta Red Gum heathy woodland of the Cumberland Plain, Sydney Basin
- 3 ecosystem credits for Broad-leaved Ironbark - Melaleuca decora shrubby open forest on clay soils of the Cumberland Plain
- 6 ecosystem credits for Parramatta Red Gum woodland on moist alluvium of the Cumberland Plain, Sydney Basin
- 17 ecosystem credits for Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin



- 4400 species credits for *Hibbertia puberula* subsp. *puberula*
- 924 species credits for *Persoonia nutans*
- 1106 species credit species for *Grevillea parviflora* subsp. *parviflora*.

The Department recommends the following additional environmental conditions to further address biodiversity impacts:

- prior to the commencement of any clearing or construction works, the Applicant must purchase and retire credits to offset the removal of vegetation
- prepare and implement a Biodiversity Management Plan in consultation with OEH
- prepare and implement a Vegetation Management Plan for the conservation of bushland.

## 5.12 Local Contributions

Under Section 94B of the Act, the Department has the ability to levy developer contributions. In the absence of an approved developer contributions plan that relates to the site, the Department has reviewed past practice, Council's submission and correspondence from the Applicant, to determine an acceptable contributions rate.

In relation to MPE Stage 1, the Department identified that Council does not currently have a development contributions plan applicable to the development of the Moorebank Intermodal Precinct and recommended that monetary contributions be sought based on industrial developments within the Liverpool local government area.

Council recommended a rate of 2% of CIV in line with its resolution in 2016 to prepare a Section 94 plan. The Department recommended that an alternative contribution using the formula from the Liverpool Contributions Plan 2009 (Hoxton Park Stage 2 Industrial Release Areas District Facilities) for transport facilities.

However, the PAC was of the view that a contribution of 1% of the CIV of Stage 1 (excluding the rail connection) would be a more appropriate for the development in the absence of an adopted section 94 plan. The PAC imposed a condition requiring the payment of \$643,027 to Council to assist in supporting the future provision of maintenance of local infrastructure in the Liverpool LGA. The PAC acknowledged that the operation of the MPE Stage 1 site would cause additional stress to the local transport network and the need for funding to provide future infrastructure.

In its response to exhibition of the Stage 2 EIS, Council sought to have the developer pay a contribution of 2% of the development CIV (excluding the rail connection cost) to align with its Council resolution in 2016 to seek Ministerial approval for a Section 94A scheme for "established areas" within the Liverpool LGA. Under that scheme, developer contributions would be levied for cost of development within "established areas" (including the Project site) at a rate of 2% for development greater than \$200,000.

Council have also suggested as an alternative that a Voluntary Planning Agreement between SIMTA and Council be prepared regarding local infrastructure contributions. Council suggest that this may involve the payment of a monetary contribution using Council's recent resolution as a basis, the provision of works in kind, or a combination of both. Council has identified that monetary contributions could cater for the long term maintenance or short term upgrades to the transport network, with road infrastructure management examples suggested by Council including the need to preclude heavy vehicle traffic on Nuwarra Road and Governor Macquarie Drive.

In correspondence dated 6 November 2017, the Applicant advised that discussions were currently underway with the Council in relation to the payment of local contributions. In the absence of an agreement between the Council and the Applicant, the Department considers that

it would be appropriate to apply the same methodology to MPE Stage 2 as was applied by the PAC in relation to MPE Stage 1.

The following formula has been applied:

**CIV:**

\$382,810,000

**minus the cost of Moorebank upgrade:**

-\$16,760,000

**minus the cost of project management:**

-\$8,260,044

x 1% =

**Development contribution:**

\$3,577,900

In calculating the above, the Department has excluded the cost of the Moorebank Avenue upgrade given these works will have public benefit. The Department also accepts the Applicant's position that the costs of project management are not to be included in determining the relevant value of the development for the purposes of a section 94A levy, and can be excluded in this instance. A condition is recommended requiring the payment of \$3,577,900 to Council prior to construction of Stage 2 commencing, unless an agreement between council and the applicant is reached to for the payment of another amount.

### 5.13 Contamination

Appendix Q to the EIS (JBS&G 2016) provides a summary of site and building investigations dating back to 2000, noting that previous investigations date back to at least 1980. It also contains information on the MPE Stage 2 site history which indicates that the site was acquired in 1913 for Defence purposes and was used for military-related storage from 1915.

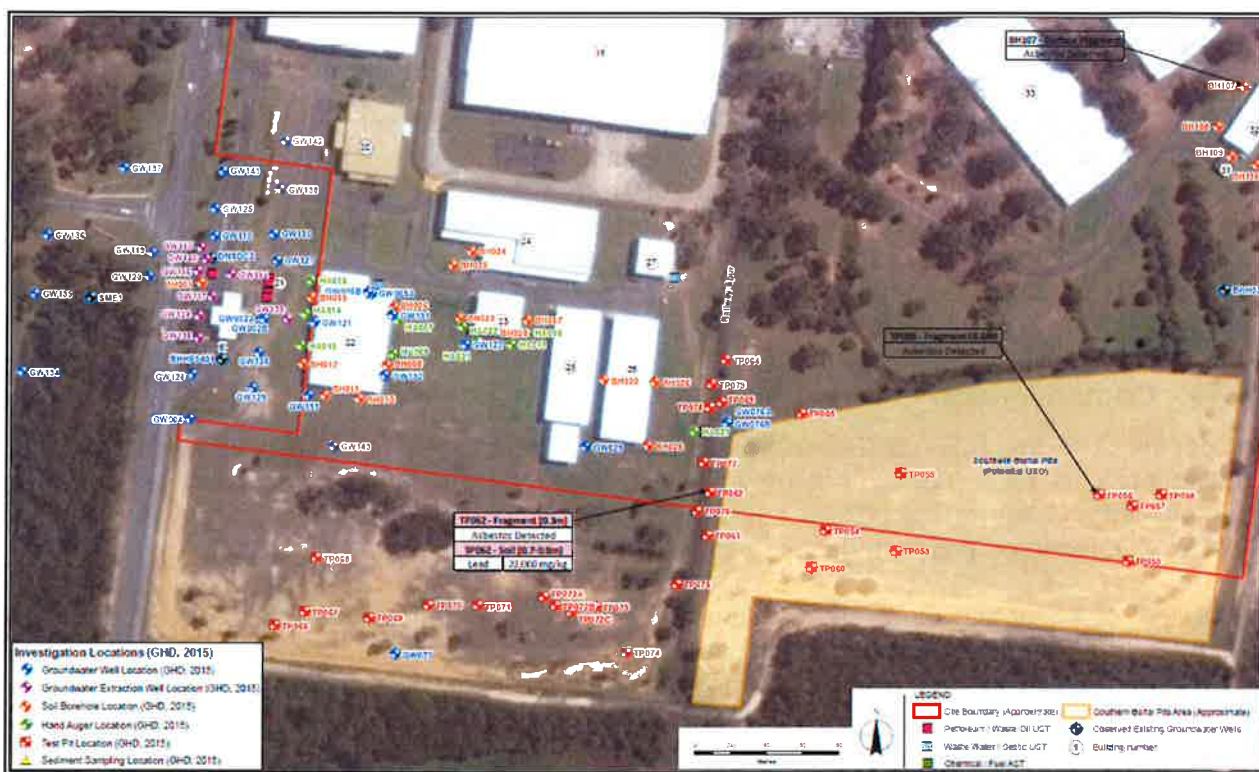
A review of historical aerial photographs showed development of storage facilities and roads underway in 1949, with minor building additions and road formation and paving noted between 1949 and 1986. By 1986 several storage sheds in the southern portion of the site were replaced by a larger single structure. In the 1990s other buildings were demolished to slab level and updated storage facilities constructed. No discernible changes were apparent between the 1998 and 2008 aerial photographs.

The north-east corner of the site was reported to be used as a store's 'burn, bash and bury' disposal area. A summary of findings from an Ordnance Investigation (Milsearch 2002) identified pits on the southern portion of the site containing general stores rubbish, surplus stores equipment, empty ammunitions boxes, remnants of old building materials, and surface debris from World War II era 36M hand grenades. URS (2002) reported fill depths up to 2.2m below ground surface in the south eastern portion of the site with material from test pits containing asbestos fragments. Contaminants found in isolated areas across the site included petroleum hydrocarbons, heavy metals, hydrochlorobenzene and asbestos. Contamination of groundwater with heavy metals was also reported by URS (2002).

The most recent site investigations were undertaken by GHD (2015), to address data gaps identified in the previous 2014 GHD *Stage 1 Contamination Assessment & Data Gap Analysis Report*, and informed an Environmental Management Plan for the site (GHD 2016).

A summary of the 2015 report findings was provided in GHD (2016) and noted general consistency with previous findings. In relation to groundwater, GHD found heavy metals higher than the nominated investigation levels however these were similar to background levels. Some contaminants of potential concern, including total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs) and aqueous film forming foam (AFFF) compounds were identified in soils and groundwater at some locations; however, the concentrations were typically low and below the nominated investigation levels. Exceptions to this were:

- elevated concentrations of lead were reported in shallow soils from a depth of approximately 0.7 to 0.8 metres in one location adjacent to the Rail Spur.
- fragments of asbestos containing material (ACM) were noted on the ground surface and shallow soils at several locations across the site (most notably in the southern portion of the site associated the southern burial pits (see **Figure 28**).
- GHD considers there is a potential risk of unexploded ordinance (UXO) or explosive ordnance waste (EOW) in the southern burial pits.



**Figure 28:** Location of Southern Burial Pits (source: GHD 2016)

The 2016 GHD report also identified a number of underground storage tanks used for a variety of purposes including waste water, septic, petroleum and waste oil.

The EIS Contamination Summary stated that the MPE Stage 2 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 2016 GHD Environmental Management Plan. The audit excluded the former DNSDC Refuelling Area (within the MPE Stage 1 site and the subject of a separate approval) which has been decommissioned and remediated. The Auditor noted that relatively limited sampling has been conducted beneath the current buildings, but the soil data from the audited area as a whole does not indicate that any additional contamination issues are likely to be present. Should existing building slabs/pavements be removed, then the requirements in the EMP relating to the management of asbestos/lead/UXO/EOW, or any other forms of contamination as directed by the unexpected finds protocol, should be adhered to.

It was noted that little information was provided in the EIS Contamination Report on past remediation works apart from:

- anecdotal evidence suggesting that the buried material in the north-eastern corner of the site was removed by Thiess contractors in the mid-1990s
- radiological clearance of the area around Building 27 was undertaken as part of the 2015 GHD investigations.

The Department understands that the owners of the site commissioned GHD in 2016 to review levels of contamination of the site, and that review considered the presence of perfluorinated compounds (known as Per- and poly-fluoroalkyl substances, or PFAS) on the site. It is understood the review concluded that the levels were below investigation levels at the time.

While agencies did not raise concern in its comments on the EIS or RtS at that time, the Department understands that knowledge about the impacts of PFAS contamination is evolving quickly, and updated Health Based Guidance was issued earlier this year. The Department and EPA considers that a precautionary approach would require an appropriate assessment of PFAS be prepared by a suitably qualified and experienced consultant in accordance with current sampling guidelines and standards. Should PFAS contamination be identified at the Site, a suitably qualified and experienced consultant would need to prepare a plan in consultation with an appointed Site Auditor, detailing the proposed remediation and/or management measures to address the on-site and off-site impacts. The plan must be approved by the appointed Site Auditor. An appropriate condition of consent has been recommended requiring an updated Contamination assessment be undertaken. A Site Audit Report and a Site Audit Statement would need to be prepared demonstrating the site is suitable for its intended use if contamination is found.

The Applicant proposes to address the on-site reuse or off-site disposal of soils through the preparation of a Contamination Management Plan as part of the CEMP. The Department also recommends that the Contamination Management Plan include details on the remediation of underground storage tanks and recommends that the following assessments, plans and procedures form part of the plan to address the risks identified by GHD and the site auditor and the lack of information on past remediation works:

- an initial UXO, EO and EOW Site Assessment Survey of the Southern Burial Pits prior to earthworks as extensive excavation is proposed in this area for the construction of an onsite detention basin; and a supplementary UXO, EO and EOW Site Assessment Survey following building demolition
- preparation of an Asbestos Management Plan
- preparation of an Unexpected Finds Procedure.

## 5.14 Other issues

The Department's consideration of other issues is provided at **Table 16**.

**Table 16:** Department's assessment of other issues

Issue	Consideration	Recommendation
Hazards	<ul style="list-style-type: none"> <li>• Due to the nature of the proposal likely hazards and contaminants include the presences of asbestos, unexploded ordnances, soil and groundwater contamination, transport, and the on-site storage and handling of dangerous goods.</li> <li>• Concern has been raised in public submissions and by Council about the impact of hazardous materials, unexploded ordnances and contamination.</li> <li>• The RFS recommended the proposal comply with the <i>Bushfire Protection 2006</i> and the site be managed as a Inner Protection Area.</li> <li>• FEARs 2.1 <i>Hazards and Risks</i> require future DA(s) to consider hazards and contamination impacts and provide mitigation / remediation, as may be required.</li> <li>• The Applicant's Phase 2 Environmental Site Assessment, undertaken in 2016 confirmed that: <ul style="list-style-type: none"> <li>○ the site is suitable for its intended purpose / land-uses</li> </ul> </li> </ul>	The Department has recommended conditions to address hazardous material and storage, contamination and bushfire management.



Issue	Consideration	Recommendation
	<ul style="list-style-type: none"> <li>○ there is low risk to the environment and human health</li> <li>• An updated contamination assessment is to be undertaken in relation to current PFAS screening levels. If contamination is found a plan detailing the proposed remediation and/or management measures to address the on-site and off-site impacts will need to be prepared and site Audit Statement submitted. The Department has recommended conditions.</li> <li>• The Department notes that the proposal includes the importation of 600,000 m3 of fill. However, as the fill would be ENM/VENM, it does not pose a contamination risk. the development would be undertaken in accordance with an Operational Environmental Management Plan (OEMP) and Construction Environmental Management Plan (CEMP) including mitigation measures.</li> <li>• The Department notes the Applicant has committed to appropriate asbestos, dangerous goods, spills, unexploded ordnance and bushfire management as part of the Concept Plan Statement of Commitments.</li> <li>• The Department has considered the development and is satisfied it is not potentially hazardous in terms of storage and transport of dangerous goods. In addition, it is considered that contamination risks during construction and operational phases of the development can be appropriately managed and mitigated.</li> <li>• The Department has recommended conditions including: <ul style="list-style-type: none"> <li>○ limits on the total storage and transport of dangerous goods on-site, in accordance with the Hazards SEPP</li> <li>○ the storage of chemicals, fuels and oils on-site in accordance with relevant Australian Standard</li> <li>○ site audit report and preparation and implementation of an OEMP and CEMP, together with the other environmental management conditions recommended in this report.</li> </ul> </li> <li>• The Department considers, subject to conditions, hazards and risk associated with construction and operation and contamination can be managed and mitigated.</li> <li>• To provide an additional level of protection, the Department recommends the Applicant's CEMP be updated to include the following additional sub-plans: <ul style="list-style-type: none"> <li>○ Contamination Management Plan</li> <li>○ Asbestos Management Plan</li> <li>○ Unexpected Finds Management Plan.</li> </ul> </li> </ul>	
Heritage and archaeology	<ul style="list-style-type: none"> <li>• Concerns have been raised in public submissions relating to the impact on historical views.</li> <li>• The Heritage Council did not object to the proposal, stating that the mitigation measures, which include exclusion zones around previously identified artefacts are acceptable, and recommended the preparation of a Heritage Interpretation Strategy.</li> <li>• The Applicant advised that the proposal would not impact on any areas of archaeological or cultural significant, or any potential or any Aboriginal sites.</li> <li>• The Department notes that archaeological and heritage impacts were considered in detail as part of the Department's assessment of the Concept Plan. The Department concluded that:</li> </ul>	The Department has recommended heritage and archaeology conditions.

Issue	Consideration	Recommendation
	<ul style="list-style-type: none"> <li>• impact on archaeology and non-indigenous heritage items (including complete removal of heritage values from the MPE site) was acceptable. In addition, due to the highly disturbed nature of the site there was a low chance of significant indigenous archaeological finds, other than low-significant isolated items.</li> <li>• The Department is satisfied heritage and archaeological impacts can be managed and mitigated, subject to the implementation of the mitigation measures and the Heritage Interpretation Plan. In addition, the Department recommends standard conditions relating to archival recording, archaeological monitoring, heritage management, and unexpected finds.</li> </ul>	
Waste	<ul style="list-style-type: none"> <li>• Concern was raised by Council in relation to the targets for reuse and recycling of waste, seeking clarification on how performance targets will be set, monitoring and reporting during operation.</li> <li>• The Applicant stated, that measures to mitigate the effect of operational waste streams would be incorporated into the OEMP, including waste management requirements and goals.</li> <li>• The Department has recommended conditions requiring the:               <ul style="list-style-type: none"> <li>○ management of construction and demolition waste</li> <li>○ management of pests, vermin and noxious weeds</li> <li>○ management of storage and processing</li> <li>○ preparation of a Waste Management Plan</li> <li>○ compliance with statutory requirements.</li> </ul> </li> </ul>	The Department has recommended conditions relating to the management of waste.
Social and economic impacts	<ul style="list-style-type: none"> <li>• Council and public submissions raised concern with the indirect impacts on economy and community, during construction and operation.</li> <li>• The Department notes, this type of project has the potential to have both adverse and beneficial impacts, at a local and regional level.</li> <li>• The economic benefits include:               <ul style="list-style-type: none"> <li>• the creation of approximately 200 construction employment opportunities and 1,400 full time jobs for the operation of the warehouse</li> <li>• the Applicant has committed, where practicable, to fill these jobs locally.</li> </ul> </li> <li>• The social benefits include:               <ul style="list-style-type: none"> <li>• reducing road traffic, by shifting freight from road to rail</li> <li>• the flow on effects include reduction in greenhouse gas emissions, air quality and noise.</li> </ul> </li> <li>• The Applicant states, that any adverse impact resulting from construction, would be minor and temporary, and would generally be localised to the site.</li> <li>• The Department has carefully considered the merits of the application in detail and concludes, subject to conditions, the proposal has acceptable impacts.</li> </ul>	No additional conditions or amendments are necessary.
Human health impacts	<ul style="list-style-type: none"> <li>• Concern was raised in public submissions about the impact on human health.</li> <li>• The Applicant has submitted a Health Risk Assessment (HRA) in accordance with approved Australian guidance for performing risk assessments. The HRA concludes that:               <ul style="list-style-type: none"> <li>• existing noise levels are already above guidelines and</li> </ul> </li> </ul>	No additional conditions or amendments are necessary.

Issue	Consideration	Recommendation
	<p>on this basis the proposal is not expected to have a minimal impact on the local residential area</p> <ul style="list-style-type: none"> <li>no significant adverse operational health effects in relation to exposure to key air pollutants.</li> <li>The Department has considered the following key impacts, of the proposal: <ul style="list-style-type: none"> <li>importation of fill, at <b>Section 5.4</b></li> <li>traffic, at <b>Section 5.5</b></li> <li>noise, at <b>Section 5.6</b></li> <li>air quality, at <b>Section 5.8</b>.</li> </ul> </li> <li>The Department's assessment concludes that the above key aspects have acceptable impacts and/or can be managed / mitigated through future DA(s).</li> <li>The Department is therefore satisfied the application would not result in adverse human health impacts.</li> </ul>	
Signage	<ul style="list-style-type: none"> <li>The primary purpose of signage within the intermodal development should be to identify buildings rather than to attract passing trade or not to display commercial signs. Strict signage guidelines should imposed in relation to signage on all buildings including the warehouse and freight village.</li> <li>No signage is to be oriented either east or south east to Wattle Grove.</li> <li>A single directory should be provided within the Moorebank Avenue setback for the warehouse tenants and also one for the freight village.</li> <li>Given the scale of the development, appropriate street signage of uniform design should be provide through the estate of key intersections</li> <li>Signage illumination should adhere to the lighting principles outlined under <b>Section 5.9.2</b> in relation to light spill.</li> </ul>	<p>The Department has recommended conditions requiring preparation of signage guidelines be prepared for the Secretary's approval for the precinct including details in relation to illumination, dimensions, location, common directory signage within the Moorebank Avenue setback, strict control of on signage on warehouse buildings and freight village buildings.</p>
Community consultation	<ul style="list-style-type: none"> <li>Concern was raised in public submissions about the extent of community engagement and public consultation of the application.</li> <li>The Applicant has confirmed that it undertook consultation with key stakeholders and agencies during the preparation of the application to inform the planning for MPE. A program of community consultation was also carried out in addition to the public exhibition of the proposal, which included: <ul style="list-style-type: none"> <li>newsletter distributed to 10,000 households surrounding MPE in November 2016 and March 2017 providing updates on the proposal and approval process</li> <li>a stand-alone website (<a href="http://www.simta.com.au">www.simta.com.au</a>), which is regularly updated to provide information to the public and including ways to contact the Project Team</li> <li>an online/email feedback system (<a href="mailto:consulting@elton.com.au">consulting@elton.com.au</a>) providing responses to public queries within 48 hours</li> </ul> </li> </ul>	<p>No additional conditions or amendments are necessary.</p>

Issue	Consideration	Recommendation
	<ul style="list-style-type: none"> <li>• a free-call information line (1800 986 465) available between 8:30 am and 5:00 pm weekdays.</li> <li>• The Applicant has stated it is committed to continuing consultation with stakeholders and the community throughout the planning process and during future stages of development.</li> <li>• The Department notes that it has appropriately exhibited the application in accordance with the requirements of the EP&amp;A Act, as stated in <b>Section 4</b>, and it has carefully considered the issues raised in submissions as part of its assessment of the staged application.</li> <li>• The Department is satisfied that sufficient public consultation has been undertaken to allow the assessment and determination of the application. The Department also notes that the detailed design of the future stages of development will be the subject of separate development application(s) that will be publicly exhibited.</li> </ul>	
Planning process / approval pathway	<ul style="list-style-type: none"> <li>• Concern has been raised in public submissions and by Council that the proposal should be held in abeyance until the MOD 2 has been determined.</li> <li>• As discussed in <b>Section 1.4</b>, the Department is concurrently assessing a modification that will amend the Concept Plan. The Department has concluded that the concurrent modification application is acceptable and has recommended the Commission approve that application.</li> <li>• Given the above, and as confirmed at <b>Section 5.2</b>, the Department considers it appropriate that this application be assessed in accordance with the Department's final recommendations for the modification application.</li> <li>• The Department is satisfied that the application is consistent with the Concept Plan as modified by MOD 2.</li> <li>• The Department has assessed the merits of the application in detail at <b>Section 5</b> of this report and concludes, subject to conditions, the proposal has acceptable impacts.</li> </ul>	No additional conditions or amendments are necessary.
Property values	<ul style="list-style-type: none"> <li>• Concern was raised in public submissions the proposal would have an adverse impact on property values.</li> <li>• The Applicant stated the proposal is consistent with the LLEP land-use controls and socio-economic impacts from noise, traffic, air quality and health can be managed and mitigated.</li> <li>• The Department has assessed the key issues and merits of the proposal in detail at <b>Section 5</b> of this report and concludes, subject to conditions, the proposal is acceptable.</li> <li>• The Department does not consider impacts on property value is a relevant planning consideration in the determination of the application. Notwithstanding, the Department notes the proposal is generally consistent with the approved Concept Plan and impacts would be appropriately managed and mitigated.</li> </ul>	No additional conditions or amendments are necessary.



## 6. CONCLUSION

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The Department has reviewed the EIS, the RtS, supplementary information and the Concept Plan and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council. Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed by the proposal and the recommended conditions.

The Department concludes the proposal is appropriate as it is consistent with the Government's strategic planning objectives for the site as set out the NSW State Priorities, *A Plan for Growing Sydney* and the draft *Greater Sydney Regional Plan*. The Moorebank Precinct is one of Sydney's key intermodal sites and its development is a key recommendation of the State Infrastructure Strategy. The Department also considers that the proposal is consistent with the Concept Plan (as proposed to be amended by MOD 2) and is an appropriate development for the site.

The Department considers the importation of fill to the site is acceptable provided only VENM and ENM is deposited on the site. In addition, the Department has recommended a suite of environmental management conditions to ensure amenity and biodiversity impacts are appropriately managed and/or mitigated during the construction phase of the development.

The Department considers that construction of the Moorebank Avenue upgrade can occur while maintaining acceptable traffic flows, as the Applicant proposes to build a diversion of Moorebank Avenue during construction. To ensure there are appropriate checks and balances in the establishment and operation of the diversion road, the Department has recommended conditions that would ensure the upgrade is designed to the satisfaction of the RMS.

The Department has recommended the Applicant deliver three main intersection upgrades at Moorebank Avenue/M5, Newbridge Road/Moorebank Avenue, and the Moorebank Avenue/Heathcote Road, in accordance with the requirements of Transport for NSW and RMS. The timing for these upgrades would be staged, based on when the predicted impacts would occur, and would mitigate the project-specific impacts of this Stage 2 development. Other upgrades required for the full operation of the Moorebank Intermodal Terminal Precinct would continue to be considered as part of the satisfactory arrangements process that continues for MPW Stage 2.

The Department carefully considered noise impacts and concludes that additional baseline monitoring is required together with additional mitigation measures (as may be required) to address construction noise impacts. The proposed extended hours of construction are able to be approved subject to a three-month trial period to allow for monitoring and implementation of appropriate work protocols. The provision of an on-site batching plant and material crushing facilities would reduce traffic impacts and is therefore appropriate.

The Department concludes the hours of operation are acceptable and has set the maximum operational noise limits for the development. However, the Department considers it appropriate that ongoing monitoring be undertaken to prevent any sleep disturbance impacts. The proposal is not considered to result in adverse traffic noise impacts.

Air quality impacts during the construction and operational phases of the development can be appropriately managed and mitigated provided no more than 22,000 tonnes of fill is imported to the site per day and environmental management plans are implemented.

The Department acknowledges that the proposal, in its current form, would result in built form, visual impacts and UHI impacts. However, the Department concludes that these impacts are

capable of being addressed through improvements to the design, layout, landscaping and WSUD of the development. The proposal is not expected to result in adverse amenity of biodiversity impacts from light spill subject to the relevant Australian Standard and best practice lighting design.

Provided freight village uses are limited to those that provide support for the intermodal development the use for commercial, retail and light industrial uses is acceptable. Subdivision of the site is acceptable subject to appropriate legal, management and maintenance conditions.

The Department considers that the provided concepts for onsite detention and biofiltration systems need to be refined to improve water quality outcomes. The Department has recommended achievable conditions that specify WSUD outcomes, onsite maintenance requirements, and requirements for easements for maintenance of stormwater systems and outlet scour protection affecting adjacent lands. These conditions would ensure the proposal better reflects current practice in relation to WSUD.

The Department acknowledges that the proposal would result in the removal of existing on-site vegetation and the importation of fill to the site may have impacts on the immediate adjoining biodiversity values. However, subject to detailed environmental conditions including biodiversity offset credits and biodiversity and vegetation management plans the biodiversity impacts can be managed and mitigated.

The Applicant is required to contribute \$3,577,900 to Liverpool City Council prior to the commencement of construction, unless an agreement between Council and the Applicant is reached for an alternative amount.

The NSW Government is committed to significant investment in new productive infrastructure and sustaining growth in our major centres, regional communities and supporting population growth. The development would significantly boost the capacity of Sydney's global gateways, allow Sydney's transport networks to grown in line with the city's population, improve productivity of the freight network, minimise road congestion and boosting the economic potential of the Greater Sydney Region. It would also deliver 200 construction and 1,400 ongoing operational jobs for Western Sydney.

The Department concludes the impacts of the development can be appropriately mitigated through the implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

Following on from its assessment of the development, the Department considers that the development is approvable. Subject to any conditions of consent. This assessment report is hereby presented to the Planning Assessment Commission for determination.



20 Nov 2017

**Karen Harragon**  
Director  
Social and Other Infrastructure Assessments



**David Gainsford** 20/11/17  
Executive Director  
Priority Projects Assessments

## APPENDIX A      RELEVANT SUPPORTING INFORMATION

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The following supporting documents and supporting information to this assessment report can be found on the Department of Planning and Environment's website as follows.

1. Environmental Impact Statement

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

2. Submissions

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

3. Applicant's Response to Submissions

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

4. Post - Response to Submissions Agency Comments

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

5. Applicant's Supplementary Information

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

6. Independent Reviews:

- Traffic
- Noise
- Stormwater/WSUD

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)

## APPENDIX B CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S)

### ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)

To satisfy the requirements of section 79C(a)(i) of the EP&A Act, this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

Controls considered as part of the assessment of the proposal are:

- *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP);
- *State Environmental Planning Policy (State & Regional Development) 2011* (SRD 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 Structures and Signage* (SEPP 64);
- *Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment* (GMREP No. 2); and
- *Liverpool Local Environmental Plan* (LLEP) 2008.

### COMPLIANCE WITH CONTROLS

#### State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

Table 17: SRD SEPP compliance table

Relevant Sections	Consideration and Comments	Complies?
<b>3 Aims of Policy</b> The aims of this Policy are as follows: (a) to identify development that is State significant development,	The proposed development is identified as SSD.	Yes
<b>8 Declaration of State significant development: section 89C</b> (1) 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 proposed development is permissible with development consent. The site is specified in Schedule 1.	Yes
<b>Schedule 1 State significant development — general</b> <b>12 Warehouses or distribution centres</b> (1) Development that has a capital investment value of more than \$50 million for the purpose of warehouses or distribution centres (including container storage facilities) at one location and related to the same operation.	The proposed development has a CIV in excess of \$50 million	Yes



## **State Environmental Planning Policy (Infrastructure) 2007**

The Infrastructure SEPP (ISEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

The ISEPP is applicable to the site. The proposal falls 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 intermodal terminal.

The development constitutes traffic generating development in accordance with clause 104 of the ISEPP as freight intermodal facilities and freight terminals of any size or capacity are considered as traffic generating development. The ISEPP requires traffic generating development to be referred to RMS for comment.

The application was referred to RMS and TfNSW in accordance with the ISEPP and their comments are summarised in **Section 4** of this report. This proposal is considered to be consistent with the ISEPP given the consultation and consideration of the comments raised by the Transport Group has been undertaken in the Department's assessment in **Section 5** of this report.

## **State Environmental Planning Policy No. 55 - Remediation of Land**

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. The EIS includes a contamination assessment for the site which concludes that no evidence of widespread residual contamination at the site has been reported., however isolated areas of the MPE site, including within the MPE Stage 2 site, have been reported to be impacted by lead, ACM, UXO and EOW. A Construction Environmental Management Plan (CEMP) has been prepared for the site, containing a contamination management plan that addresses the impacts during the construction works.

To ensure the risks are addressed satisfactorily, the Department has recommended the Applicant undertake to prepare an initial UXO, EO and EOW Site Assessment Survey of the Southern Burial Pits prior to earthworks as extensive excavation is proposed in this area for the construction of an onsite detention basin, and a supplementary UXO, EO and EOW Site Assessment Survey following building demolition. The Department has also recommended the Applicant prepare preparation of an Asbestos Management Plan, and an Unexpected Finds Procedure, prior to construction.

## **State Environmental Planning Policy No. 64 – Advertising and Signage**

*State Environmental Planning Policy No 64- Advertising and Signage* (SEPP 64) applies to all signage that under an EPI can be displayed with or without development consent and is visible from any public place or public reserve.

The development proposes signage as discussed at **Section 5.14**. Under clause 8 of SEPP 64, consent must not be granted for any signage application unless the proposal is consistent with the objectives of the SEPP and with the assessment criteria which are contained in Schedule 1.

As discussed at **Section 5.14**, the Department recommends a condition requiring all signage be subject to signage guidelines, which shall be prepared for the Secretary's approval. The guidelines would provide a framework for the provision of signage throughout the whole Moorebank Precinct, including details relating to illumination, dimensions, location, common directory signage within the

Moorebank Avenue setback. In addition, signage on warehouse and freight village buildings would be strictly controlled.

Any future application for signage would be required to include a SEPP 64 assessment to ensure it complies with the relevant Schedule 1 criteria.

## APPENDIX C CONSISTENCY WITH THE CONCEPT PLAN

An assessment of the proposal against the relevant Concept Plan (as modified by the MOD2 application) requirements, Terms of Approval and Future Assessment Requirements of the Concept Approval is provided below.

Assessment Criteria	Comments	Compliance
<b>Terms of Concept Plan Approval</b>		
<b>Limits of Approval</b>		
1.6 Projects carried out under this this Concept Plan must be operated with the objective of not exceeding the capacity of the transport network, including the local, regional and State road network. The container freight road volume must not exceed 250,000 TEUs p.a, subject to the exception identified in 1.7, which may only be considered after the facility has been in operation.	Consistent refer to 1.7.	Yes
1.7 The movement of container freight by road may exceed the 250,000 TEU p.a limit by up to a further 250,000 TEU p.a, if the consent authority of a subsequent Development Application is satisfied that traffic monitoring and modelling of the operation of the facility demonstrate that traffic movements resulting from the proposed increase in TEU will achieve the objective of not exceeding the capacity of the transport network.	<p>The applicant has provided a TIA and SIDRA traffic assessment as part of the RtS, in consultation with TfNSW and RMS.</p> <p>The Department is satisfied that subject to the proposed road infrastructure and intersection upgrades, the impacts of the proposal can be managed and mitigated to reduce any adverse impacts on the road network.</p> <p>The Department has considered the likely traffic impacts of the proposal at <b>Section 5.5</b>, the Department has recommended appropriate conditions of consent.</p>	Yes
1.9 Building footprints/setbacks and building/structure heights are to be generally consistent with Section 04.5 and 04.6 of the Urban Design and Landscape Report (Appendix E of the EA).	<p>Building footprints/setbacks and building/structure heights are to be generally consistent. Notwithstanding, the Department recommends the development be amended to improve the visual amenity, pedestrian movement, tree canopy, employee amenity, contextual fit and WSUD of the development.</p> <p>The Department has considered the built form and visual impacts of the proposal at <b>Section 5.9</b> and recommends appropriate conditions of consent.</p>	Yes
1.11 The maximum GFAs for the following uses apply: <ul style="list-style-type: none"> <li>• 300,000m<sup>2</sup> for the warehousing and distribution facilities;</li> <li>• 2,100m<sup>2</sup> for the terminal</li> </ul>	The development generally complies with the maximum GFAs for the warehousing, office and freight village components.	Yes

Assessment Criteria	Comments	Compliance
<p>administration offices and ancillary operational facilities; and</p> <ul style="list-style-type: none"> <li>8,000m<sup>2</sup> for the freight village.</li> </ul>	<p>The Department has considered the built form and visual impacts of the proposal at <b>Section 5.9</b> and recommends appropriate conditions of consent</p>	
<b>Future Assessment Requirements</b>		
<b>Air Quality</b>		
<p>Any future Development Application shall include a comprehensive air quality impact assessment for each stage of the proposal, including:</p> <p>a) An assessment in accordance with the <i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2005)</i> (or its later version and updates);</p> <p>b) Taking into account the final project design with consideration to worst-case meteorological and operating conditions;</p> <p>c) Quantitatively assessing the predicted emission of:</p> <ul style="list-style-type: none"> <li>i. Solid particles;</li> <li>ii. Sulphur oxides;</li> <li>iii. Nitrogen oxides; and</li> <li>iv. Hydrocarbons.</li> </ul> <p>d) Assessing cumulative air impacts at a local and regional level (including but not limited to contemporaneous operations such as those of the proposed Commonwealth Government MIT; and</p> <p>e) A comprehensive air quality management plan that includes at least the following information:</p> <ul style="list-style-type: none"> <li>i. Explicit linkage of proposed emission controls to the site specific best practice determination assessment and assessed emissions;</li> <li>ii. The timeframe for implementation of all identified emission controls;</li> <li>iii. Proposed key performance indicator(s) for emission controls;</li> <li>iv. Proposed means of air quality monitoring including location (on and off-site), frequency and duration;</li> <li>v. Poor air quality response mechanisms;</li> <li>vi. Responsibilities for demonstrating and reporting achievement of key performance indicator(s);</li> <li>vii. Record keeping and complaints response register; and</li> <li>viii. Compliance reporting.</li> </ul>	<p>The Applicant has provided an Air Quality Impact Assessment (Appendix M) and a Health Risks Assessment (Appendix N) as part of the EIS.</p> <p>The Department has considered the likely air quality impacts of the proposal at <b>Section 5.8</b>, the Department has recommended appropriate conditions of consent.</p>	<p>Yes</p>



Assessment Criteria	Comments	Compliance
<b>Traffic and Transport</b>		
<p>The traffic assessment shall:</p> <ul style="list-style-type: none"> <li>a) undertake detailed model analysis commensurate with the stage, to confirm network operation and identify intersection upgrade requirements;</li> <li>b) consider the constructability constraints of proposed upgrade(s) at key intersections, such as vehicle sweep paths, geometry and sight lines;</li> <li>c) assess construction traffic impacts, including: <ul style="list-style-type: none"> <li>i. the identification of routes and the nature of existing traffic on these routes;</li> <li>ii. an assessment of construction traffic volumes (including spoil haulage/delivery of materials and equipment to the road corridor and ancillary facilities); and</li> <li>iii. potential impacts to the regional and local road network (including safety and level of service) and potential disruption to existing public transport services and access to properties and businesses.</li> </ul> </li> <li>d) assess operational traffic and transport impacts to the local and regional road network, including: <ul style="list-style-type: none"> <li>i. changes to local road connectivity and impacts on local traffic arrangements, road capacity/safety;</li> <li>ii. traffic capacity of the road network and its ability to cater for predicted future growth and</li> <li>iii. monitoring of vehicle numbers on Cambridge Avenue.</li> </ul> </li> <li>e) provide an updated Traffic Management and Accessibility Plan including: <ul style="list-style-type: none"> <li>i. measures to prevent heavy vehicles accessing residential streets to maintain the residential amenity of the local community</li> <li>ii. public transport;</li> <li>iii. cyclist facilities; and</li> <li>iv. driver code of conduct.</li> </ul> </li> </ul>	<p>The Applicant has provided a TIA as part of the EIS which covers construction and operational traffic impacts (Appendix K, Kb, Kc), which was updated by the RtS (Appendix C)</p> <p>In addition, the Applicant has provided revised architectural drawings, illustrating the design and location of the upgrade to Moorebank Ave. The applicant is working with TfNSW and RMS and have agreed to apply for the necessary works authorisation deeds.</p> <p>The Department has considered the traffic and transport impacts associated with the proposal at <b>Section 5.5</b>, the Department has recommended appropriate conditions of consent.</p>	Yes
<p>In particular, the Traffic Impact Assessment must identify upgrades and other mitigation measures required to achieve the objective of not exceeding the capacity of the following intersections and roads:</p> <ul style="list-style-type: none"> <li>(a) Moorebank Avenue/ Newbridge Road</li> <li>(b) Moorebank Ave/ Heathcote Road</li> <li>(c) Cambridge Ave</li> </ul>	Refer to comment above.	Yes

Assessment Criteria	Comments	Compliance
(d) M5 Motorway/ Moorebank Avenue (e) M5 Motorway/ Heathcote Road (f) M5 Motorway/ Hume Highway.		
Any future Development Application for new or modified traffic control signals for the MPE project will require consent from Roads and Maritime Services in accordance with Section 87 of the Roads Act 1993. The proponent will be required to enter into a Works Authorisation Deed with Roads and Maritime Services for new or modified traffic control signals.	Refer to comment above.	Yes
Any future Development Application for the design of the proposed upgrade and widening works along Moorebank Avenue, including the raising of Moorebank Avenue, is to provide that that design requires approval by Roads and Maritime Services, TfNSW, and other relevant agencies. The proponent will be required to enter into a Works Authorisation Deed with Roads and Maritime Services for proposed road works on Moorebank Avenue.	Refer to comment above.	Yes
Any future Development Application is to ensure that the existing use of Moorebank Avenue as a public road is to a standard commensurate to its current use prior to the development. A staging plan and Construction and Traffic Management Plan shall be submitted for review and approval to Roads and Maritime Services and TfNSW prior to construction works commencing, to ensure adequate capacity including a requirement to maintain at least two lanes open to traffic along Moorebank Avenue at all times.	Refer to comment above.	Yes
<b>Noise and vibration</b>		
Any future Development Application shall include an updated assessment of noise and vibration impacts. a) The assessment shall: i. assess construction noise and vibration impacts associated with construction of the intermodal facility including rail link, including impacts from construction traffic and ancillary facilities. The assessment shall identify sensitive receivers and assess construction noise/vibration generated by representative construction scenarios focusing on high noise generating works. Where work hours outside of standard construction hours are proposed, clear justification and	The Applicant has provided a Noise and Vibration Assessment (Appendix L) and a Health Risks Assessment (Appendix N) as part of the EIS, which was updated by the RtS (Appendix D)  The Department has carefully considered the likely noise and vibration impacts associated with the proposal at <b>Section 5.6</b> , the Department has recommended appropriate conditions of consent.	Yes

Assessment Criteria	Comments	Compliance
<p>detailed assessment of these work hours must be provided, including alternatives considered, mitigation measures proposed and details of construction practices, work methods, compound design, etc</p> <p>ii. assess operational noise and vibration impacts and identify feasible and reasonable measures proposed to be implemented to minimise operational noise impacts of the intermodal facility and rail link, including the preparation of an Operational Noise Management and Monitoring Plan; and</p> <p>iii. be prepared in accordance with: NSW Industrial Noise Policy (EPA 2000), Interim Construction Noise Guideline (DECC 2009), Assessing Vibration: a technical guide (DEC 2006), the Rail Infrastructure Noise Guideline (EPA 2013), Development Near Rail Corridors and Busy Roads Interim Guideline (DoP 2008), and the NSW Road Noise Policy 2011.</p> <p>b) All site-dedicated locomotives must meet EPA Noise Limits for Locomotives contained within the NSW operational rail licences for operation of new or substantially modified locomotives operating on the NSW network; and</p> <p>c) Any future application shall include a train noise strategy including, but not limited to, train operational procedures and driver training that minimise noise on the rail link and within the intermodal terminal.</p>		
<b>Soil and water</b>		
<p>Any future Development Application shall include an assessment of soil and water impacts. The assessment is to, where relevant:</p> <p>a) assess impacts on surface and groundwater flows, quality and quantity, with particular reference to any likely impacts on Georges River and Anzac Creek;</p> <p>b) assess flooding impacts and characteristics, to and from the project (including rail link), with an assessment of the potential changes to flooding behaviour (levels, velocities and direction)</p>	<p>The Applicant has provided the following:</p> <ul style="list-style-type: none"> <li>• Geotechnical Interpretative Report and Contamination Summary Report as part of the EIS (Appendix Q)</li> <li>• Stormwater and Flooding Environmental Impact Assessment as part of the EIS (Appendix P), which was updated by the RtS (Appendix E)</li> <li>• Stock Pile Management Protocol as part of the RtS (Appendix G)</li> </ul> <p>The Department has considered the likely geotechnical, hydrological and WSUD and contamination impacts</p>	<p>Yes</p>

Assessment Criteria	Comments	Compliance
<p>and impacts on bed and bank stability, through flood modelling, including:</p> <ul style="list-style-type: none"> <li>i. hydraulic modelling for a range of flood events;</li> <li>ii. description, justification and assessment of design objectives (including bridge, culvert and embankment design);</li> <li>iii. an assessment of afflux and flood duration (inundation period) on property; and</li> <li>iv. consideration of the effects of climate change, including changes to rainfall frequency and/or intensity, including an assessment of the capacity of stormwater drainage structures.</li> </ul> <p>c) identify and assess the soil characteristics and properties that may impact or be impacted by the project, including acid sulfate soils;</p> <p>d) include a contamination assessment in accordance with the guidelines made under the <i>Contaminated Land Management Act 1997</i> and in consultation with the EPA for the subject site including the Glenfield Waste Facility. The assessment shall include:</p> <ul style="list-style-type: none"> <li>i. the potential environmental and human health risks of site contamination on the project site;</li> <li>ii. a Remediation Action Plan;</li> <li>iii. consideration of implications of proposed remediation actions on the project design and timing; and</li> <li>iv. a Phase 2 environmental site assessment of the project site including rail corridor; and</li> </ul> <p>e) include measures to manage dust from imported fill and ensure only VENM or ENM is imported to the site.</p>	<p>associated with the proposal at <b>Sections 5.4</b> and <b>5.13</b>, the Department has recommended appropriate conditions of consent.</p>	
<b>Heritage</b>		
Any future Development Application shall assess heritage impacts of the	The Applicant has provided an Aboriginal Heritage Impact Assessment	Yes

Assessment Criteria	Comments	Compliance
<p>proposal. The assessment shall:</p> <ul style="list-style-type: none"> <li>a) consider impacts to Aboriginal heritage (including cultural and archaeological significance), in particular impacts to Aboriginal heritage sites identified within or near the project should be assessed. Where impacts are identified, the assessment shall demonstrate effective consultation with Aboriginal communities in determining and assessing impacts and developing and selecting options and mitigation measures (including the final proposed measures); and</li> <li>b) consider impacts to historic heritage. For any identified impacts, the assessment shall: <ul style="list-style-type: none"> <li>i. outline the proposed mitigation and management measures (including measures to avoid significant impacts and an evaluation of the effectiveness of the measures). Mitigation measures should include (but not be limited to) photographic archival recording and adaptive re-use of buildings or building elements on site);</li> <li>ii. be undertaken by a suitably qualified heritage consultant(s); and</li> <li>iii. include a statement of heritage impact.</li> </ul> </li> </ul>	<p>(Appendix S) and a Non-Indigenous Heritage Impact Assessment (Appendix T) as part of the EIS</p> <p>The Department has considered the likely heritage and archaeological impacts associated with the proposal at <b>Section 5.14</b>, the Department has recommended appropriate conditions of consent.</p>	
<b>Visual Amenity, Urban Design and Landscaping</b>		
<p>Any future Development Application shall include an assessment of visual impacts. The assessment shall:</p> <ul style="list-style-type: none"> <li>a) include a description of the visual significance of the affected landscape;</li> <li>b) assess the visual impact of the project on the landscape character of the area, including built form (materials and finishes) and the urban design (height, bulk and scale) of key components including container stacking heights, lighting, bridge crossings, and views to and from the project that result from the filling of the site; and</li> <li>c) include details of hard and soft landscaping treatment and design (including proposed road upgrades</li> </ul>	<p>The Applicant has provided a Visual Impact Assessment and Light Spill Study Report as part of the EIS (Appendix R), which was updated by the RtS (Appendix F)</p> <p>The Department has considered the likely built form and visual impacts associated with the proposal at <b>Section 5.9</b>, the Department has recommended appropriate conditions of consent.</p>	<p>Yes</p>



Assessment Criteria	Comments	Compliance
<p>relevant to that stage and reinstatement of riparian vegetation);</p> <p>d) include details of treatments, screening and other mitigation measures proposed to be implemented to minimise impacts resulting from importation of fill.</p>		
<b>Biodiversity</b>		
<p>Any future Development Application shall include a Flora and Fauna assessment. The assessment shall:</p> <p>a) assess impacts on the biodiversity values of the site and adjoining areas, including Endangered Ecological Communities and threatened flora and fauna species and their habitat, impacts on wildlife and habitat corridors, riparian land, and habitat fragmentation and details of mitigation measures, having regard to the range of fauna species and opportunities for connectivity (terrestrial, arboreal and aquatic) across the rail link between the site and the EHPL;</p> <p>b) include a Vegetation Management Plan that has been prepared in consultation with DPI;</p> <p>c) document how (direct and indirect) impacts on threatened flora species have been minimised through the detailed design process;</p> <p>d) include the details of available offset measures to compensate the biodiversity impacts of the proposal where offset measures are proposed to address residual impacts, in particular the following should be considered:</p> <p>i. As stipulated in principle 2 of <i>'NSW offset principles for major projects (state significant development and infrastructure)'</i>, for terrestrial biodiversity, established assessment tools, such as the BioBanking Assessment Methodology (BBAM), are considered best practice;</p> <p>ii. the Biodiversity Offset Strategy will be undertaken in accordance with the <i>'NSW offset principles for major projects (state significant development and state significant infrastructure)'</i>; and</p> <p>iii. Offsets shall be identified, and demonstrate that they can be secured.</p>	<p>The Applicant has provided a Biodiversity Assessment Report (BAR) as part of the EIS (Appendix O), which was updated by a Revised BAR submitted as part of supplementary information.</p> <p>The Department has considered the likely direct and indirect biodiversity impacts associated with the proposal at <b>Section 5.11</b>, the Department has recommended appropriate conditions of consent.</p>	Yes

Assessment Criteria	Comments	Compliance
<b>Section 94 Contributions</b>		
<p>Any future Development Application shall include:</p> <p>a) an assessment of the impacts of the project on local infrastructure, having regard to any relevant Council's Developer Contributions Plan (or equivalent document requiring developer contributions);</p> <p>b) Subject to the terms of any applicable Voluntary Planning Agreement, a commitment to pay developer contributions to the relevant consent authority or undertake works-in-kind towards the provision or improvement of public amenities and services. <b>Note:</b> This requirement may be satisfied subject to the terms of any applicable Voluntary Planning Agreement; and</p> <p>c) a commitment to undertake vehicle monitoring on Cambridge Avenue in accordance with Traffic and Transport requirement d) iii. Should any monitoring reveal the need for improvement works within the Campbelltown LGA as a result of the proposal, the Proponent may be required to contribute towards local road maintenance or upgrades.</p>	<p>The Applicant has advised that discussions are underway in relation to the payment of contributions to the Council.</p> <p>The Department has considered the necessity for the payment of Section 94 contributions at <b>Section 5.12</b>, and the Department has recommended an appropriate condition of consent.</p>	Yes
<b>Waste</b>		
<p>Any future Development Application shall ensure that liquid and/or non-liquid waste generated on the site is assessed and classified and where removed from the site, is directed to a waste management facility lawfully permitted to accept the materials.</p>	<p>The Applicant has committed to the assessment and classification of liquid and/or non-liquid waste generated on the site.</p>	Yes
<b>Hazards and Risks</b>		
<p>Any future Development Application shall be accompanied by a preliminary risk screening completed in accordance with <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33</i> (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 <i>Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis</i> (DoP 2011) and <i>Multi-Level Risk Assessment</i> (DoP 2011). The PHA should:</p> <p>a) Estimate the risks from the facility (including each component of the facility</p>	<p>The Applicant has provided a Geotechnical Interpretative Report and Contamination Summary Report (Appendix Q) and a Health Risks Assessment (Appendix N) as part of the EIS</p> <p>The Department has considered the likely hazards and risks associated with the proposal at <b>Section 5.14</b>, the Department has recommended appropriate conditions of consent.</p>	Yes

Assessment Criteria	Comments	Compliance
<p>following subdivision);</p> <p>b) Be set in the context of the existing risk profiles for the intermodal facility and demonstrate that the proposal does not increase the overall risk of the area to unacceptable levels; and</p> <p>c) Demonstrate that the proposal complies with the criteria set out in the <i>Hazardous Industry Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning</i>.</p>		
<b>Freight Village</b>		
<p>Any future Development Application for the freight village should include:</p> <p>a) Employee numbers;</p> <p>b) Details of uses sought;</p> <p>c) Hours of operation for each use;</p> <p>d) Signage;</p> <p>e) Parking (staff and visitor); and</p> <p>f) Demonstration that the use is ancillary to the functioning of the intermodal development or has a nexus to the intermodal development on site.</p>	<p>The Applicant's EIS includes consideration of the key components of the freight village.</p> <p>The Department has considered the use/operation of the freight village at <b>Section 5.9.3</b>, the Department has recommended appropriate conditions of consent.</p>	Yes
<b>Bushfire Management</b>		
<p>Any future Development Application shall be accompanied by an assessment against the Planning for Bushfire 2006 (NSW Rural Fire Service).</p>	<p>The Applicant provided consideration of <i>Planning for Bushfire 2006</i> as part of supplementary information.</p> <p>The Department has considered bushfire risks associated with the development at <b>Section 5.14</b>, the Department has recommended appropriate conditions of consent.</p>	Yes
<b>Subdivision</b>		
<p>Any future Development Application shall:</p> <p>a) provide a subdivision plan and supporting documentation detailing all common land, access roads and services including drainage works required to maintain internal connections and interdependencies between the individual intermodal functions within the development site;</p> <p>b) identify the entity(s) responsibility for the delivery and ongoing maintenance within the intermodal estate of site services, internal roads, pedestrian paths, landscaping, lighting of common areas, emergency services including bushfire mitigation, OSD and Water Sensitive Urban Design elements; and</p> <p>c) provide details of the overarching operational management of the site following subdivision.</p>	<p>The Applicant has provided a Subdivision Plan (Appendix I) as part of the EIS.</p> <p>The Department has considered the subdivision of the MPE site at <b>Section 5.10</b>, the Department has recommended appropriate conditions of consent.</p>	Yes

Assessment Criteria	Comments	Compliance
<b>Warehousing and Distribution</b>		
Any future Development Application must demonstrate how compliance with condition 1.12 in Schedule 2 will be achieved.	The Department has recommended conditions of consent to ensure compliance with the condition 1.12.	Yes
<b>Environmental Risk Management</b>		
Notwithstanding the above listed issues, future Development Applications shall include an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation), proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional environmental impacts are identified through this risk analysis, an appropriately detailed impact assessment of the additional environmental impacts shall be included as part of the Development Application.	The Applicant has provided an environmental risks analysis as part of the EIS.	Yes

## **APPENDIX D    RECOMMENDED CONDITIONS OF CONSENT**

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The recommended conditions of consent can be found on the Department of Planning and Environment's website as follows.

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=7628](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=7628)