

# Moorebank Precinct East - Stage 2 Proposal

Aboriginal Heritage Assessment



**SIMTA**

SYDNEY INTERMODAL TERMINAL ALLIANCE

Part 4, Division 4.1, State Significant  
Development

This page has been left blank intentionally



# MPE Stage 2

Aboriginal Heritage Assessment

Report to Arcadis

December 2016

**Final for Public Display**



Artefact Heritage  
ABN 73 144 973 526  
Level 4, Building B  
35 Saunders Street  
Pyrmont NSW 2009  
Australia

+61 2 9518 8411  
[office@artefact.net.au](mailto:office@artefact.net.au)



## EXECUTIVE SUMMARY

### The Proposal

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

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

### Findings

The Proposal study area has been assessed as highly disturbed and modified. There were no areas of PAD identified within the site and overall the site is considered to have low to nil potential to contain intact archaeological deposits.

MPE Isolated Artefact 1 was recorded by AHMS in 2015. It was assessed as having low archaeological significance. The site was not recorded on the AHMS register and no site card is available. The artefact was not located during the site visit for this assessment. The search was informed by information presented in the AHMS assessment report. As the artefact could not be relocated and the site has not been registered, it is recommended that no additional assessment or management of the site is required.

The Stage 2 proposal would not impact Aboriginal heritage values or any registered Aboriginal objects. As there will be no impacts to known Aboriginal objects, or to areas of Aboriginal archaeological potential, no specific archaeological management is required.

## Recommendations

- An exclusion zone would be provided around previously identified MPE Isolated Finds 2, 3 and 4 as to avoid potential disturbance of these artefacts during construction of the Proposal
- Consultation would be maintained with RAPs during the finalisation of the Aboriginal Heritage Impact Assessment report for the Proposal
- Management of Aboriginal heritage would be managed through the CEMP for the Proposal. Information within the CEMP would include:
  - A summary of the findings of the Aboriginal Heritage Impact Assessment Report (provided at Appendix S of this EIS)
  - Guidance on unexpected archaeological and cultural finds (including human remains).
- All relevant personnel and contractors involved in the design and construction of the Proposal would be advised of the relevant heritage considerations, legislative requirements and recommendations in this Aboriginal Heritage Impact Assessment Report.

# CONTENTS

<b>Executive Summary.....</b>	<b>i</b>
The Proposal .....	i
Findings .....	i
Recommendations .....	ii
<b>1.0 Introduction and Background .....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 Overview of the Proposal .....	4
1.3 Key terms relevant to the Proposal .....	7
1.4 Report authorship .....	8
<b>2.0 Site description .....</b>	<b>9</b>
2.1 Regional context.....	9
2.2 Local context .....	9
<b>3.0 Legislative Framework.....</b>	<b>12</b>
3.1 Environmental Planning & Assessment Act (1979) (EP&A Act) .....	12
3.2 National Parks and Wildlife Act (1974) (NPW Act) .....	12
3.2.1 Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010 (Code of Practice).....	13
3.3 Aboriginal Land Rights Act (1983) .....	14
3.4 Native Title Act (1994).....	14
<b>4.0 Environmental And Historical Context .....</b>	<b>15</b>
4.1 Environmental context.....	15
4.2 Aboriginal ethno-historic context .....	15
4.3 Previous Studies .....	17
4.3.1 Archaeological Heritage Management Solutions 2012 MPE Concept Plan Aboriginal Heritage Impact Assessment.....	17
4.3.2 Archaeological Heritage Management Solutions 2015 MPE Stage 1 Proposal Aboriginal Heritage Impact Assessment .....	18



4.3.3	Artefact MPW Stage 2 Proposal Aboriginal Heritage Impact Assessment...	20
4.4	Aboriginal Heritage Information Management System (AHIMS) Extensive Search	22
<b>5.0</b>	<b>site investigation and Consultation .....</b>	<b>24</b>
5.1	Site investigation.....	24
5.2	Aboriginal Consultation.....	24
5.2.1	MPE Stage 1 .....	24
5.2.1	MPE Stage 2.....	25
<b>6.0</b>	<b>Impact Assessment.....</b>	<b>26</b>
<b>7.0</b>	<b>management and Mitigation .....</b>	<b>27</b>
7.1	Archaeological Management for Stage 2 .....	27
7.2	Mitigation Measures.....	27
<b>8.0</b>	<b>References.....</b>	<b>30</b>

## FIGURES

Figure 1	Overview of the Proposal.....	6
Figure 2:	The local context of the Proposal .....	11
Figure 3:	Aboriginal sites identified during MPE Stage 1(AHMS 2015) .....	19
Figure 4:	MPW Aboriginal sites (From MPW Stage 2 assessment report – Artefact 2016).....	21
Figure 5:	Aboriginal sites identified on the AHIMS register near the Proposal .....	23

## TABLES

Table 1:	Secretary's Environmental Assessment Requirements relevant to this Non-Indigenous heritage assessment.....	2
Table 2:	Concept Plan conditions of approval and Statement of Commitments relevant to this study.....	3
Table 3:	Summary of key terms used throughout this document .....	7
Table 4:	Distance to residential suburbs from the Proposal site .....	10



## 1.0 INTRODUCTION AND BACKGROUND

### 1.1 Introduction

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

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

This EIS has been prepared to address:

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

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

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

The SEARs and the Concept Plan Conditions of Approval and Statement of Commitments relevant to this study, and the section of this report where they have been addressed are provided in Table 1 and

Table 2 respectively.

**Table 1: Secretary's Environmental Assessment Requirements relevant to this Non-Indigenous heritage assessment**

SEARs	Where addressed in this report
-------	--------------------------------

**8. Aboriginal Heritage** including but not limited to:

An assessment of the heritage impacts of the proposal. The assessment shall:

- |   |                                       |
|---|---------------------------------------|
| <p>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. The identification of cultural heritage values should be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW 2000). 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) in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW); and</p> | <p>Section 6.0</p>                    |
| <p>b) Describe attempts to avoid impacts to cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.</p>  | <p>Not applicable,<br/>no impacts</p> |

**Table 2: Concept Plan conditions of approval and Statement of Commitments relevant to this study**

Section	Environmental Assessment Requirement	Where addressed in this report
<b>Conditions of Approval</b>		
Aboriginal heritage	<p>a. Any future Development Application shall assess heritage impacts of the proposal. The assessment shall:</p> <p>b. 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)</p>	This report
<b>Statement of Commitments</b>		
Aboriginal Heritage	<p>The Proponent commits to the implementation of the following Site Specific Mitigation Measures:</p> <ul style="list-style-type: none"> <li>Given the extensive historical disturbance within the remainder of the SIMTA site, it is considered that the likelihood of the presence of intact or significant Aboriginal objects and/or sites is low and no further archaeological investigations are warranted in these remaining areas;</li> </ul>	Section 6

## 1.2 Overview of the Proposal

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

Key components of the Proposal include:

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



The Proposal would interact with the MPE Stage 1 Project (SSD\_6766) via the transfer of containers between the MPE Stage 1 IMT and the Proposal's warehousing and distribution facilities. This transfer of freight would be via a fleet of heavy vehicles capable of being loaded with containers and owned by SIMTA. The fleet of vehicles would be stored and used on the MPE Stage 2 site, but registered and suitable for on-road use. The Proposal is expected to operate 24 hours a day, seven days per week.

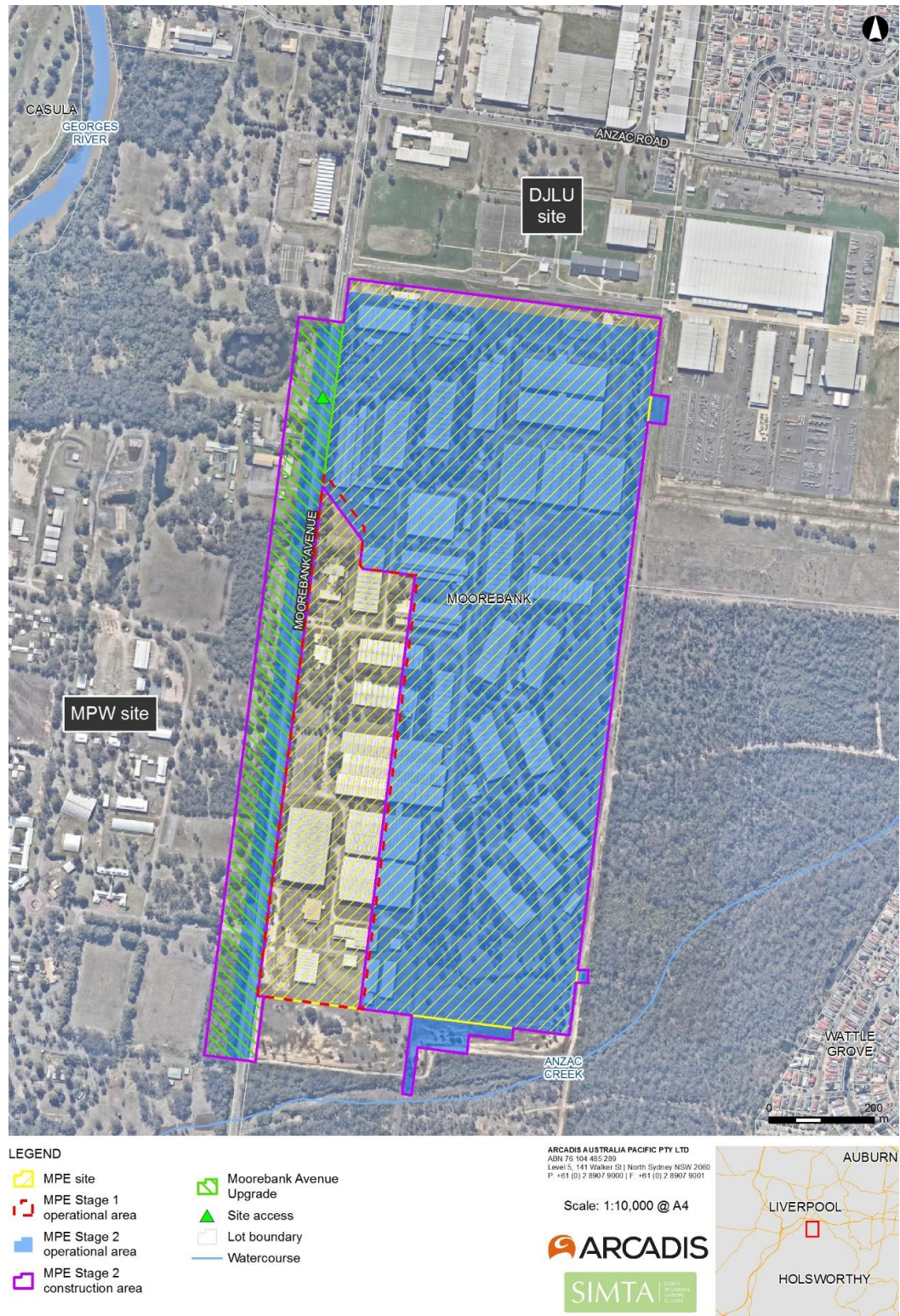
An overview of the Proposal is shown in Figure 1. To facilitate operation of the Proposal, the following construction activities would be carried out across and surrounding the Proposal study area (area on which the Proposal is to be developed):

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

Construction works associated with signage, landscaping, stormwater and drainage works. The Proposal would operate 24 hours a day, 7 days a week.

The footprint and operational layout of the Proposal are shown on Figure 1. More information relating to the construction and operation of the Proposal is provided Chapter 4 of the MPE Stage 2 EIS.

**Figure 1 Overview of the Proposal**



Date: 3/11/2016 Path: F:\AA009017\GIS\AA\_Current\B\_Map\GIS\AA009017\_MPE\Stage 2\_EIS\_009\_Proposal\Overview\_r2v2.mxd  
 Created by: CC  
 QA by: CV

### 1.3 Key terms relevant to the Proposal

Table 3 provides a summary of the key terms relevant to the Proposal, which are included throughout this report.

**Table 3: Summary of key terms used throughout this document**

Term	Definition
<b>General terms</b>	
The Moorebank Precinct	Refers to the whole Moorebank intermodal precinct, i.e. the MPE site and the MPW site
Moorebank Precinct West (MPW) Project (formerly the MIC Project)	The MPW Intermodal Terminal Facility as approved under the MPW Concept Plan Approval (SSD_5066) and the MPW EPBC Approval (No. 2011/6086).
Moorebank Precinct West (MPW) site (formerly the MIC site)	The site which is the subject of the MPW Concept Plan Approval, MPW EPBC Approval and MPW Planning Proposal. The MPW site does not include the rail link as referenced in the MPW Concept Plan Approval or MPE Concept Plan Approval.
Moorebank Precinct East (MPE) Concept Plan Approval (formerly the SIMTA Concept Plan Approval)	MPE Concept Plan Approval (SSD_0193) granted by the NSW Department of Planning and Environment on 29 September 2014 for the development of former defence land at Moorebank to be developed in three stages; a rail link connecting the site to the Southern Sydney Freight Line, an intermodal terminal, warehousing and distribution facilities and a freight village.
Moorebank Precinct East (MPE) Project (formerly the SIMTA Project)	The MPE Intermodal Terminal Facility, including a rail link and warehouse and distribution facilities at Moorebank (eastern side of Moorebank Avenue) as approved by the Concept Plan Approval (MP 10_0913) and the MPE Stage 1 Approval (14_6766).
Moorebank Precinct East (MPE) Site (formerly the SIMTA Site)	Including the former DSNDC site and the land owned by SIMTA which is subject to the Concept Plan Approval. The MPE site does not include the rail corridor, which relates to the land on which the rail link is to be constructed.
Statement of Commitments (SoC)	Recommendations provided in the specialist consultant reports prepared as part of the MPE Concept Plan application to mitigate environmental impacts, monitor environmental performance and/or achieve a positive environmentally sustainable outcome in respect of the MPE Project. The Statement of Commitments have been proposed by SIMTA as the Proponent of the MPE Concept Plan Approval.



Term	Definition
<b>MPE Stage 1 Project-specific terms</b>	
Rail Corridor	Area defined as the 'Rail Corridor' within the MPE Concept Plan Approval.
Rail Link	The rail link from the South Sydney Freight Line to the MPE IMEX Terminal, including the area on either side to be impacted by the construction works included in MPE Stage 1.
MPE Stage 1	Stage 1 (14-6766) of the MPE Concept Plan Approval for the development of the MPE Intermodal Terminal Facility, including the rail link at Moorebank. This reference also includes associated conditions of approval and environmental management measures which form part of the documentation for the approval.
MPE Stage 1 site	Includes the MPE Stage 1 site and the Rail Corridor, i.e. the area for which approval (construction and operation) was sought within the MPE Stage 1 Proposal EIS.
<b>MPE Stage 2 specific terms</b>	
MPE Stage 2 Proposal/ the Proposal	The subject of this EIS; being Stage 2 of the MPE Concept Plan Approval including the construction and operation of 300,000m <sup>2</sup> of warehousing and distribution facilities on the MPE site and the Moorebank Avenue upgrade within the Moorebank Precinct.
MPE Stage 2 site	The area within the MPE site which would be disturbed by the MPE Stage 2 Proposal (including the operational area and construction area). The MPE Stage 2 site includes the former DSND site and the land owned by SIMTA which is subject to the MPE Concept Plan Approval. The MPE site does not include the rail corridor, which relates to the land on which the rail link is to be constructed.
The Moorebank Avenue site	The extent of construction works to facilitate the construction of the Moorebank Avenue upgrade.
The Moorebank Avenue upgrade	Raising of the vertical alignment of Moorebank Avenue for 1.5 kilometres of its length by about two metres, from the northern boundary of the MPE site to approximately 120 metres south of the MPE site. The Moorebank Avenue upgrade also includes upgrades to intersections, ancillary works and the construction of an on-site detention basin to the west of Moorebank Avenue within the MPW site.
Construction area	Extent of construction works, namely areas to be disturbed during the construction of the MPE Stage 2 Proposal (the Proposal).
Operational area	Extent of operational activities for the operation of the MPE Stage 2 Proposal (the Proposal).

## 1.4 Report authorship

Heritage Consultant Claire Rayner and Director Dr Sandra Wallace prepared this report.

## 2.0 SITE DESCRIPTION

### 2.1 Regional context

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

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

### 2.2 Local context

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

The land surrounding the Proposal site comprises:

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

Glenfield Waste Services, south-west of the Proposal is proposing to develop a Materials Recycling Facility on land owned by the Glenfield Waste Services Group within the boundary of the current landfill site at Glenfield. The facility is proposed to recycle a maximum of 450,000 tonnes of material per year. The Glenfield Waste Services Proposal is the subject of a DA (SSD\_6249) under Part 4, Division 4.1 of the EP&A Act.



A number of residential suburbs are located in proximity to the Proposal site. The approximate distances of these suburbs to the MPE Stage 2 site and the Moorebank Avenue site are provided in Table 4 below.

**Table 4: Distance to residential suburbs from the Proposal site**

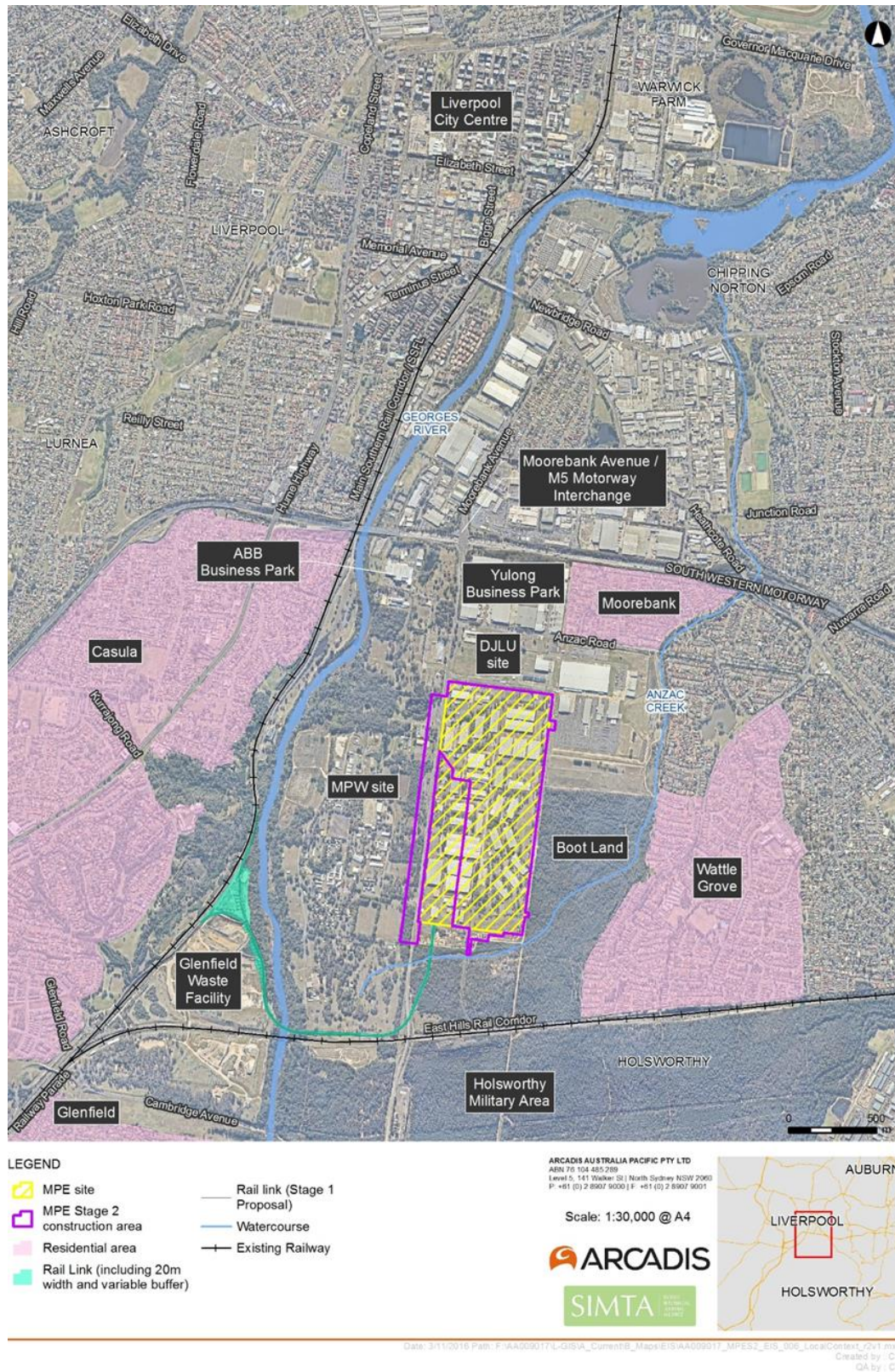
Suburb	Distance to MPE Stage 2 site	Distance to Moorebank Avenue site
Wattle Grove	360 m to the north-east	865 m to the north-east
Moorebank	1300 m to the north	1430 m to the north
Casula	820 m to the west	760 m to the west
Glenfield	1830 m to the south-west	1540 m to the south-west

The closest industrial precinct to the Proposal is at Moorebank, comprising around 200 hectares of industrial development. This area includes (but is not limited to) the Yulong and ABB sites to the south of the M5 Motorway and the Goodman MFive Business Park and Miscellaneous industrial and commercial development to the north of the M5 Motorway. The majority of this development is located to the north of the M5 Motorway between Newbridge Road, the Georges River and Anzac Creek. The Moorebank Industrial Area supports a range of industrial and commercial uses, including freight and logistics, heavy and light manufacturing, offices and business park developments.

There are other areas of industrial development near the Proposal at Warwick Farm to the north, Chipping Norton to the north-east, Prestons to the west and Glenfield and Ingleburn to the south-west.

The local context of the Proposal is shown on Figure 2.

Figure 2: The local context of the Proposal



## 3.0 LEGISLATIVE FRAMEWORK

### 3.1 Environmental Planning & Assessment Act (1979) (EP&A Act)

The EP&A Act is administered by the Department of the Premier and Cabinet and provides planning controls and requirements for environmental assessment in the development approval process. This Act has three main parts of direct relevance to Aboriginal cultural heritage. Namely, Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment and Part 5 which relates to activity approvals by governing (determining) authorities.

Planning decisions within Local Government Areas (LGAs) are guided by Local Environmental Plans (LEPs). Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items which are protected under the EP&A Act 1979 and the *Heritage Act 1977*.

The Proposal study area is within the Liverpool City Council LGA. The Liverpool LEP 2008 (Part 5, Clause 5.10) makes standard provision for the protection of Aboriginal objects and Aboriginal places of heritage significance. There are no Aboriginal items within the Proposal study area that are listed in the Liverpool LEP 2008.

The Proposal will be assessed under Part 4, Division 4.1 of the EP&A Act, which establishes an assessment and approval regime for State Significant Development (SSD). Part 4, Division 4.1 applies to development that is declared to be SSD by a State Environmental Planning Policy (SEPP). Section 89J of the EP&A Act specifies that approvals or permits under section 90 of the NPW Act are not required for approved SSD projects.

### 3.2 National Parks and Wildlife Act (1974) (NPW Act)

The NPW Act, administered by the OEH provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) under Section 90 of the Act, and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community) under Section 84.

The protection provided to Aboriginal objects applies irrespective of the level of their significance or issues of land tenure. However, areas are only gazetted as Aboriginal Places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is, of special significance to Aboriginal culture.



The NPW Act was amended in 2010 and as a result the legislative structure for seeking permission to impact on heritage items has changed. A Section 90 permit is now the only Aboriginal Heritage Impact Permit (AHIP) available and is granted by the OEH.

Various factors are considered by OEH in the AHIP application process, such as site significance, Aboriginal consultation requirements, ESD principles, project justification and consideration of alternatives. The penalties and fines for damaging or defacing an Aboriginal object have also increased.

As the Proposal is being assessed under Part 4 Division 4.1 of the EP&A Act 1979 permits issued under the NPW Act 1974 are not required.

### 3.2.1 Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010 (Code of Practice)

The Code of Practice was introduced in October 2010 by the OEH (formerly the Department of Environment, Climate Change and Water). The Code of Practice specifies the minimum standards for archaeological investigation undertaken in NSW under the NPW Act. The aim of the guidelines is to establish the requirements for undertaking test excavation as a part of archaeological investigation without an AHIP and to establish the requirements that must be followed when carrying out archaeological investigation in NSW where an application for an AHIP is likely to be made.

OEH recommends that the requirements of the Code of Practice also be followed where a proponent may be uncertain about whether or not their proposed activity may have the potential to harm Aboriginal objects or declared Aboriginal places and the proponent is required to undertake further investigation to understand and establish the potential harm their proposal may have on Aboriginal cultural heritage, and the further investigation involves archaeological assessment

As the Proposal is being assessed under Part 4, Division 4.1 of the EP&A Act, it is not required to use the Code of Practice. However, the Code of Practice has been used in the context of best practice to inform and structure the current study.

### 3.3 Aboriginal Land Rights Act (1983)

The *Aboriginal Land Rights Act 1983* is administered by the NSW Department of Human Services -Aboriginal Affairs. This Act established Aboriginal Land Councils (at State and Local levels). These bodies have a statutory obligation under the Act to; (a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and (b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

### 3.4 Native Title Act (1994)

The *Native Title Act 1994* was introduced to work in conjunction with the Commonwealth Native Title Act. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

There are no active Native title claims within the Proposal study area.



## 4.0 ENVIRONMENTAL AND HISTORICAL CONTEXT

### 4.1 Environmental context

The Proposal study area is situated along the upper Georges River, in a transitional area between Wianamatta Shale and Hawkesbury Sandstone zones. Wianamatta Shale terrain is typical of the Cumberland Plain Woodland located to the west of the Proposal study area. Hawkesbury Sandstone terrain extends from the upper Georges River to the east (NOHC 2014).

The majority of the Proposal study area is capped by Tertiary alluvial clayey quartz sands, salty sands and clays and forms part of the Berkshire Park Soils Group (Hazleton and Bannerman 1990). This soil landscape unit generally overlies alluvium, often on elevated terraces, and comprises shallow clayey sand soils, with frequent ironstone pisoliths (Hazleton and Bannerman 1990 *in* NOHC 2014). The Berkshire Park Soils landscape is mapped on the Penrith sheet as being developed on the Tertiary terraces of the Hawkesbury/Nepean River System. Landforms on the east side of the Georges River are lower in altitude than on the west, so flooding incidence is much higher (NOHC 2014). The banks of the Georges River and Maxwells Creek are characterised by the South Creek soil landscape. The soil profiles of the South Creek soil landscape generally comprise an A1 horizon of brown sandy loam with an A2 horizon of more compact bleached clay loam with gravels. This is underlain by a yellow to brown clay B horizon with high gravel content. The fluvial soils would have been subject to frequent flood events, possibly resulting in a deep, homogenous deposit susceptible to mixing (OEH 2014, Artefact 2016). The modern geomorphology, hydrology and wetland habitats of the Georges River reflect disturbance throughout the catchment which has occurred since European settlement (NOHC 2014).

### 4.2 Aboriginal ethno-historic context

Aboriginal people traditionally lived in small family or clan groups that were associated with particular territories or places. The language groups occupying the region surrounding the Proposal study area are thought to have been the Dharawal, the Darug and the Gundungurra (Attenbrow 2010:221, 222). Laila Haglund has suggested that the Campbelltown area may have represented the intersection between the boundaries for these language groups, and that the Narellan Valley may have been part of a 'travel corridor' facilitating movement between the northern Cumberland Plain and the Illawarra (JMcDCHM 2007:21 after Haglund 1989).

The Dharawal language group was largely coastal and is thought to have extended from the Shoalhaven River, north to Botany Bay and then inland to Camden (Attenbrow 2002:34). Historical records show that the Gundungurra were located to the west and southwest of the Dharawal and into the southern Blue Mountains. It is not known whether this represented recent displacement patterns as a result of European colonisation or was part of a longer term interaction with the Dharawal (Karskens 2010:496). The Darug language group occupied much of the Cumberland Plain between the Blue Mountains and the coast, with the language being divided into coastal and hinterland dialects (Attenbrow 2002:34).

British colonisation had a profound effect on the Aboriginal population of the Sydney region. In the early days of the colony Aboriginal people were disenfranchised from their land as the British claimed areas for settlement and agriculture. The colonists, often at the expense of the local Aboriginal groups, also claimed resources such as pasture, timber, fishing grounds and water sources.

Some Aboriginal people of southwestern Sydney may have seen cattle before being first confronted by the colonists. Two bulls and four cows escaped from the Sydney colony in 1788 and were not recovered. In 1790 a group of cows were observed grazing near Camden in what became known as the 'Cowpastures'. The herd expanded and by 1801 were thought to number in the hundreds and efforts were made to recapture them (Turbet 2011: 88, Kayandel 2010:23).

In the early 1800s relationships between the Aboriginal people of the area and the European settlers were generally amicable. Grace Karskens notes several examples of close relationships between land owners and local Aboriginal people, including Charles Throsby who gave the Dharawal protection on his Glenfield Estate during later not so peaceful times (Karskens 2010).

Relations between Aboriginal people and colonists did not remain amicable. A sustained drought during 1814 and 1815, and continued disenfranchisement lead to tensions between farmers and Aboriginal people who remained to the southwest of Sydney. The Aboriginal people were accused of stealing corn and potatoes and spearing cattle. A number of farmers were killed on their properties. In a dispatch Governor Macquarie wrote that '*The Native Blacks of this country...have lately broken out in open hostility against the British Settlers residing on the banks of the River Nepean near the Cow Pastures*'. Aboriginal people were targeted and it was ordered that Aboriginal men be strung from trees when they were killed as an example (Turbet 2011:234).

In 1816 the tensions culminated in the Appin massacre when Aboriginal people were pursued by a detachment led by Captain James Wallis. Fourteen Aboriginal people of the Dharawal nation were shot or driven over a cliff to their deaths by the soldiers. The bodies of two of the Aboriginal men were strung up at the site (Turbet 2011).

Although the numbers of Aboriginal people in the area decreased as settlers and farmers moved into the locality, communities remained living at Camden Park and along the Georges River near Liverpool (Liston 1988).

### 4.3 Previous Studies

#### 4.3.1 Archaeological Heritage Management Solutions 2012 MPE Concept Plan Aboriginal Heritage Impact Assessment

AHMS completed an Aboriginal heritage assessment to support the Concept Plan Environmental Assessment. The Aboriginal heritage assessment included a comprehensive site survey, during which a number of Aboriginal sites and area of archaeological sensitivity were located.

There were three Aboriginal sites recorded during the site survey which are in the Stage 2 Proposal study area and one adjacent to it (refer to Figure 5); Isolated artefacts 1, 2, 3 and 4.

MPE Isolated Artefact 1, a 'mudstone flake' was assessed as having low archaeological significance and is located within the Stage 2 Proposal study area and within the MPE site. The site was not recorded on the Aboriginal Heritage Information Management System (AHIMS) register and no site card is available. The artefact was not located during the site visit for the Proposal. As the artefact could not be located and the site has not been registered, it is recommended that no additional assessment or management of the site is required.

MPE Isolated Artefact 2, a 'possible mudstone flake core', MPE Isolated Artefact 3, a 'possible silcrete core', and MPE Isolated Find 4, a chert core were recorded on a vehicle track along the southern boundary of the former DNSDC site. They were also assessed as having a low archaeological significance and were not recorded on AHIMS. Although MPE Isolated Artefact 2 and MPE Isolated Artefact 3 are within the southern portion of the Stage 2 Proposal study area, within the land to the south of the MPE site boundary, they would not be impacted by the works and would be protected by an exclusion zone. MPE Isolated Artefact 4 is outside the Proposal site.

#### 4.3.2 Archaeological Heritage Management Solutions 2015 MPE Stage 1 Proposal Aboriginal Heritage Impact Assessment

AHMS completed an Aboriginal heritage impact assessment as part of the MPE Stage 1 Proposal, located next to the Proposal study area and overlapping with the southern boundary of the Proposal study area. As part of the approval process for the MPE Stage 1 Proposal, the SEARS required further investigation of PADs delineated in the original survey report completed by AHMS in 2012. A test excavation program was conducted within the MPE site to further determine the nature and extent of the Aboriginal heritage resource of PAD2 and PAD3. PAD2 extends west of Moorebank Avenue and PAD3 extends to the east of Moorebank Avenue.

The northern extent of PAD2 had previously been tested by Navin Officer Heritage Consultants (NOHC) in 2014. The testing program conducted by AHMS was focussed around the southern extent and the area adjacent to Georges River.

A total of 13 test pits were excavated as part of the program. These were divided as seven test pits within PAD2 and six test pits on either side of Anzac Creek within PAD3. The program avoided placing excavation units within the modern floodplain closest to Georges River. Test pits were placed 50 metres from Georges River along upper slope and elevated terraces and 30 to 40 metres from Anzac Creek.

The test excavations recovered 28 artefacts from PAD2. The majority of artefacts were from those test pits located closest to the Georges River. This area was designated as MA14 by AHMS. Optical Stimulated Luminescence (OSL) dates obtained for this site indicate that the underlying sand sheet began forming around 60 000 years ago. OSL samples taken in association with the upper assemblage returned dates between 3-4 000 yBP and samples in associated with the lower assemblage returned dates between 18 000 yBP.

Consultation with RAPs for the MPE Project identified an area of cultural heritage value on the western side of Georges River (**Error! Reference source not found.**). This area was considered to be a southern extension of MAPAD2 identified by NOHC (2014).

Figure 3: Aboriginal sites identified as part of the MPE Stage 1 Aboriginal Heritage Impact Assessment (AHMS 2015)





#### 4.3.3 Artefact MPW Stage 2 Proposal Aboriginal Heritage Impact Assessment

Artefact prepared an assessment for Stage 2 of the MPW Project which includes the western most edge of the MPE Stage 2 study area (Artefact 2016) where the Moorebank Avenue upgrade area extends into the areas assessed under MPW Project.

The Artefact assessment was informed by the MPW Concept Design and MPW Stage 1 Aboriginal heritage assessments completed by NOHC (NOHC 2014).

Both the NOHC and Artefact reports found the area where the MPE Stage 2 study area overlaps with the MPW Project has a low Aboriginal archaeological potential with no Aboriginal objects identified.

Figure 4: MPW Aboriginal sites (From MPW Stage 2 assessment report – Artefact 2016)



#### 4.4 Aboriginal Heritage Information Management System (AHIMS) Extensive Search

An extensive search of the Aboriginal Heritage Information System (AHIMS) database was conducted on 19 July 2016 for sites registered within the following parameters:

GDA 1994 MGA 56	3	06221mE – 310547mE 6238356mN – 6243757mN
Buffer		200 m
Number of sites		36
Number of Aboriginal places		1
AHIMS Search ID		234770

The AHIMS search area encompasses the wider region around the Proposal study area, in order to give context. The frequency of site feature types is summarised in Table below.

None of the sites identified by the AHIMS extensive search are located within the Proposal study area. The isolated artefact recorded by AHMS (2012) was not identified in the AHIMS search and is assumed to have not been registered with AHIMS. Further, no places of Aboriginal significance are located within the Proposal study area. The closest Aboriginal place is Collingwood Aboriginal place located outside of the Proposal study area approximately 1.5 kilometres to the North West.

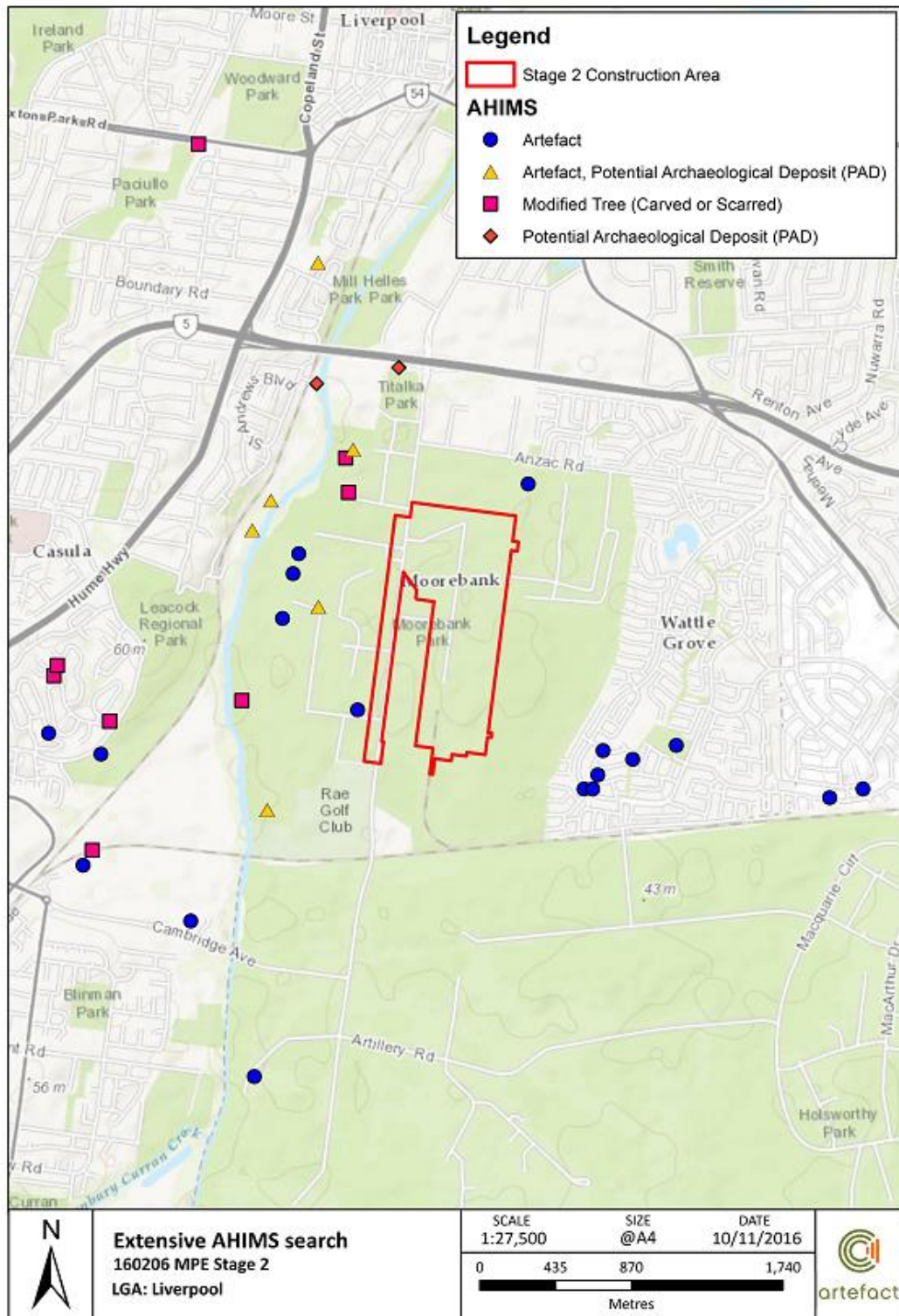
The following summary is provided to provide archaeological context in regard to types and numbers of sites in the local area.

**Table 5: Frequency of site features in AHIMS extensive site search results**

Site Feature	Frequency	Percentage (%)
Artefact	20	55
Artefact, PAD	6	17
PAD	2	6
Modified Tree (Carved or Scarred)	8	22



Figure 5: Aboriginal sites identified on the AHIMS register near the Proposal



## 5.0 SITE INVESTIGATION AND CONSULTATION

### 5.1 Site investigation

A site survey was undertaken in conjunction with the non-Aboriginal heritage survey by Emmanuelle Fayolle and Stephanie Moore of Artefact Heritage on 21 June 2016.

The location of the previously identified artefact (MPE Isolated artefact 1) was visited, but the artefact could not be relocated. No other Aboriginal sites or areas of archaeological potential were identified.

### 5.2 Aboriginal Consultation

#### 5.2.1 MPE Stage 1

Aboriginal consultation was undertaken as part of the Concept Plan Approval in 2011-2012 by AHMS. Due to the time between consultation with Aboriginal parties, it was deemed necessary to undertake further consultation to engage with any previous and additional members of the Aboriginal community.

AHMS were commissioned to conduct consultation as part of the Aboriginal Heritage Impact Assessment prepared for the MPE Stage 1 Proposal (refer to Appendix T and Section 15 of the MPE Stage 1 EIS). A newspaper advertisement was published in the Liverpool Champion on the 26 November 2014 to engage any additional Aboriginal stakeholders whom did not previously register an interest during the Concept Plan Approval. On the 3 December 2014 notification of the MPE Stage 1 Proposal was sent to relevant Aboriginal parties, which included an invitation to register an interest, the draft methodology for the archaeological investigation works proposed to be undertaken for the Stage 1 Proposal.

Consultation was undertaken with the following Aboriginal parties whom registered interest in the MPE Stage 1 Proposal:

- Tharawal Local Aboriginal Land Council (TLALC)
- Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC)
- Darug Tribal Aboriginal Corporation (DTAC)
- Darug Aboriginal Cultural Heritage Assessments (DACHA)
- Tocomwall
- Darug Land Observations (DLO)
- Darug Custodian Aboriginal Corporation (DCAC)

- Darug Aboriginal Landcare Inc (DALI).

Subsequent to registering of interest, these Registered Aboriginal Parties (RAPs) participated in on-site investigations and were also contacted to provide input into the final draft Aboriginal Heritage Impact Assessment.

The Aboriginal Heritage Impact Assessment Addendum was distributed to the RAPs on the 27 August 2015, and a period of 14 days was provided for their review and comment. No comments or feedback was received.

### 5.2.1 MPE Stage 2

The RAPs listed earlier in section 5.2 were provided with a draft version of this report for their comments with a response period of seven days. As there were no proposed impacts to Aboriginal sites, and all RAPs had been involved in extensive consultation during previous project stages, this approach was appropriate.

DLO, DACHA, DALI and DTAC expressed support for the findings and recommendations of the report.

TLALC and DCAC had no comments on the report.

CBNTCAC and Tocomwal commented that they would like more time to respond to the report. Artefact let both groups know that additional comments were welcome and could be included in the MPE Stage 2 submissions report. These comments could be submitted to Artefact directly, or as part of the public submission for the project. CBNTCAC also commented that they were of the understanding that a PAD area within the MPE Stage 2 Proposal area was recommended for salvage by AHMS. Artefact responded that there were no recommendations in the AHMS report for salvage excavation in the areas to be impacted by the MPE Stage 2 Proposal and that salvage excavation was taking place as part of MPE Stage 1 within the rail corridor (subject to separate approval). CBNTCAC were happy with the explanation.



## 6.0 IMPACT ASSESSMENT

The Proposal involves the construction and operation of warehouses and distribution facilities on the MPE site and the upgrade of Moorebank Avenue. The Proposal would be located on land within and surrounding the MPE site. Key components are discussed in Section 3.0.

The majority of the Proposal study area would be raised and levelled to facilitate the construction of warehousing and the road upgrade.

The Proposal study area has been assessed as highly disturbed and modified. Sandy clay B soil horizons were observed across the site indicating that intact archaeological deposits are unlikely to occur in those areas. There were no areas of PAD identified within the site and overall the site is considered to have low to nil potential to contain intact archaeological deposits.

MPE Isolated Artefact 1 was recorded by AHMS in 2015. It was assessed as having low archaeological significance. The site was not recorded on the AHIMS register and no site card is available. The artefact was unable to be located during the site visit for this assessment. The search was informed by information presented in the AHMS assessment report.

As the artefact could not be relocated and the site has not been registered, it is recommended that no additional assessment or management of the site is required.

The Proposal would not impact any areas of archaeological potential or any Aboriginal sites of high, moderate or unknown archaeological and cultural significance.

The Proposal would not impact Aboriginal heritage values or any registered Aboriginal objects.

## 7.0 MANAGEMENT AND MITIGATION

### 7.1 Archaeological Management for Stage 2

As there will be no impacts to known Aboriginal objects, or to areas of Aboriginal archaeological potential, no specific archaeological management is required.

### 7.2 Mitigation Measures

- An exclusion zone would be provided around previously identified MPE Isolated Artefacts 2, 3 and 4 to avoid potential disturbance of these artefacts during construction of the Proposal.
- Management of Aboriginal heritage would be included in the CEMP for the Proposal. Information within the CEMP would include:
  - A summary of the findings of the Aboriginal Heritage Impact Assessment Report (provided at Appendix S of this EIS)
  - Guidance on unexpected archaeological and cultural finds (including human remains).
- All relevant personnel and contractors involved in the design and construction of the Proposal would be advised of the relevant heritage considerations, legislative requirements and recommendations in the Aboriginal Heritage Impact Assessment Report (provided at Appendix S of this EIS)

## 8.0 APPENDIX 1 - CONSULTATION LOG

Contact / Organisation	Contacted by / Organisation	Method	Date / Time	Comments
Glenda Chalker/Cubbitch Barta Native Title Claimants Aboriginal Corporation	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
John Reilly/Darug Tribal Aboriginal Corporation	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Danny Franks/Tocomwall	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Jamie Workman/Darug Land Observations	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Justine Coplin/Darug Custodian Aboriginal Corporation	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Denise Ezzy/TLALC	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Des Dyer/Darug Aboriginal Landcare Inc	Veronica Norman/Artefact Heritage	Email	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Celestine Everingham/Darug Aboriginal Cultural Heritage Assessments	Veronica Norman/Artefact Heritage	Letter	23-11-16	Aboriginal heritage assessment for Stage 2 of the MPE Project sent to stakeholders for 1 week comment and review
Veronica Norman/Artefact Heritage	Jamie Workman/DLO	Email	27-11-16	DLO support the proposed methodology
Glenda Chalker/Cubbitch Barta Native Title Claimants Aboriginal Corporation	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comment on proposed methodology. Glenda was unhappy with the review period of only one week, although this report is not under the regular consultation guidelines she would still like all comment periods to be 28 days to ensure adequate time to review reports. She will look at the report and provide comments by tomorrow. Glenda called me back later, wondering why AHMS excavations weren't mentioned that Glenda was a part of, and they had discussed salvage within a PAD area.
John Reilly/Darug Tribal Aboriginal Corporation	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comment on proposed methodology. Left a voicemail for John
Danny Franks/Tocomwall	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comment on proposed methodology. Danny had no comment
Justine Coplin/Darug Custodian Aboriginal Corporation	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comment on proposed methodology. Justine's number was busy
Des Dyer/Darug Aboriginal Landcare Inc	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comment on proposed methodology. Des agrees with the proposed methodology.
Denise Ezzy/TLALC	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comments on proposed methodology. Denise will send through comments tomorrow.
Celestine Everingham/Darug Aboriginal Cultural Heritage Assessments	Veronica Norman/Artefact Heritage	Phone	28-11-16	Calling stakeholders for comments on proposed methodology. Celestine will send through comments tomorrow.
Veronica Norman/Artefact Heritage	John Reilly/DTAC	Phone	29-11-16	Calling stakeholders for comments on proposed methodology. John supports the methodology, and notes the significance of the area to the Darug people
Veronica Norman/Artefact Heritage	Celestine Everingham/DACHA	Phone	29-11-16	Supports the methodology
Sandra Wallace/Artefact Heritage	Glenda Chalker/CBNTCAC	Phone	30-11-16	Talked through information from the AHMS report which recommended no further work within the former SIMTA site. Glenda was happy with this.

## 9.0 REFERENCES

AHMS 2012, Aboriginal Cultural Heritage Assessment: SIMTA Moorebank Intermodal Terminal Facility, Report to Hyder Consulting Pty Ltd.

AHMS 2015, SIMTA Intermodal Terminal Facility – Stage 1 Aboriginal Heritage Impact Assessment, Report to Hyder Consulting Pty Ltd.

NOHC 2014 Chapter 20 Aboriginal Heritage in Parsons Brinckerhoff Moorebank Intermodal Terminal Project Environmental Impact Statement





artefact

Artefact Heritage

ABN 73 144 973 526

Level 4, Building B

35 Saunders Street

Pymont NSW 2009

Australia

+61 2 9518 8411

[office@artefact.net.au](mailto:office@artefact.net.au)

[www.artefact.net.au](http://www.artefact.net.au)