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SIMTA

Non-Indigenous Heritage



SYDNEY INTERMODAL TERMINAL ALLIANCE

Transitional Part 3A Concept Plan Application

5/6/2013

Executive Summary

Artefact Heritage, on behalf of the Hyder Consulting and the Sydney Intermodal Terminal Alliance (SIMTA) (a consortium of Qube Logistics and Aurizon), has undertaken an assessment of non-Indigenous heritage for the site of a proposed intermodal terminal facility and rail corridor at Moorebank, New South Wales.

The proposed development is an intermodal terminal facility, which will be linked to the Southern Sydney Freight Line and will provide container freight distribution and warehousing facilities. The proposal is a staged development, with the different stages as follows:

- Stage 1 Construction of the intermodal terminal and rail link.
- Stage 2 Construction of warehouses and distribution facilities.
- Stage 3 Extension of the intermodal terminal and completion of warehouses and distribution facilities.

A Concept Plan approval is being sought under the transitional provisions relating to Part 3A assessments under the Environmental Planning and Assessment Act 1979 (EP&A Act). On approval of the Concept Plan for the SIMTA proposal, applications for development stages of the SIMTA proposal will be submitted to the NSW Department of Planning and Infrastructure as State significant development (SSD) under Part 4 of the EP&A Act, or as otherwise stipulated in the Concept Plan approval. This report provides an overall non-Indigenous heritage assessment, for the proposal as a whole, to support the application for Concept Plan approval under Part 3A of the Environmental Planning and Assessment Act 1979.

The SIMTA site, approximately 83 hectares in area, is currently operating as a Defence storage and distribution centre. The SIMTA site is legally identified as Lot 1 in DP1048263 and zoned as General Industrial under Liverpool City Council LEP 2008. The parcels of land to the south and south west that would be utilised for the proposed rail link are referred to as the rail corridor. The proposed rail corridor covers approximately 75 hectares and adjoins the Main Southern Railway to the north and south. The rail line is approximately 3.5 kilometres in length, 20 metres in width (variable width) and includes two connections to the SSFL, one south and one north.

The footprint for the SIMTA proposal includes part of two heritage listed items: the DNSDC site and the School of Military Engineering complex (SME) The DNSDC site, which encompasses the SIMTA site, is currently listed on the Commonwealth Heritage List (CHL) and is protected under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act), while the SME is listed on

the Liverpool Local Environmental Plan 2008 and is protected under the *Heritage Act* 1977 and the *Environmental Planning and Assessment Act* 1979. A number of heritage listed items are located in the vicinity of the SIMTA proposal footprint. However, only one of these, Glenfield Farm, may be subject to impacts as a result of the proposal. Glenfield Farm is listed on the State Heritage Register (SHR).

DNSDC site

The DNSDC site includes a number of intact store buildings dating to WWII and is significant as a rare surviving example of a WWII military complex. The SIMTA proposal would have a significant impact on the heritage significance of the DNSDC site, which is currently leased by the Australian Defence Force and is therefore listed on the CHL and protected by the EPBC Act 1999. However, the SIMTA site will only be located within a "Commonwealth Area" for as long as Defence leases the site, and once that lease expires or is relinquished, the SIMTA site would no longer be within a "Commonwealth Area" and would need to be removed from the CHL (s341L EPBC Act). It is possible that the site may then be considered for listing on another heritage register, such as the National Heritage List (NHL) or SHR. If either of these listings were to occur prior to the granting of development approval for the SIMTA site, SIMTA would be required to fulfil additional obligations under the relevant heritage legislation.

The ongoing heritage protection measures that will exist once Defence vacates the SIMTA site will entirely depend on:

- The terms of any contractual obligations between SIMTA and Defence that operate at that point in time; and,
- Whether the SIMTA site is subsequently listed on the NHL or SHR and thereby becomes subject to the regulatory requirements of the relevant legislation.

Different legislative requirements will apply to the SIMTA site, depending on when development approval is sought and which form of statutory protection the site is under at that time. However, regardless of the statutory context, the heritage values of the DNSDC site are known to be high and it is preferable that significant elements of the site are conserved where possible, whether this is through the re-use of the warehouses or the conservation of the most representative samples of the structures.

The SIMTA proposal would have a significant impact on the DNSDC site and its heritage values, although a combination of mitigation measures would minimise this impact where practicable. The SIMTA proposal is likely to involve the demolition and/or removal of all or some of the heritage

buildings on the DNSDC site, the construction of new buildings, and landscape modification through the installation of new water, sewerage, trade waste, and power infrastructure. These changes would impact on the heritage significance of the WWII buildings located at the DSNDC site, although it is likely that these impacts would be mitigated by a combination of conservation, adaptive reuse, and relocation of some of the WWII structures.

If buildings are to be demolished, re-use of heritage fabric within an interpretive context would be appropriate and archival recording would be necessary. While some recording was completed in 2001 (Brooks & Associates 2002:28), updates to this record would be required. The historical landscape context of the site should also be taken into account. Elements such as the alignment of the roads and rail line may be preserved, or embedded through conservation or interpretation in the new development design (Brooks & Associates 2002:28).

It is recommended that a mitigation strategy should be developed for the DNSDC site as a whole, once the nature of the SIMTA proposal has been more adequately defined. This strategy may be based on the potential mitigation options outlined in Table 3 and, at a minimum, would involve archival and photographic recording of the entire DNSDC site. At the Project Applications stage, detailed Statements of Heritage Impact (SoHI) should be produced for each stage of the SIMTA proposal, based on the information provided in this report.

It is possible that archaeological remains of former structures exist throughout the site, and these have the potential to be of moderate research significance. Recommendations for mitigation and management measures for areas of archaeological potential would be made within the SoHIs for each stage of the proposal.

<u>SME</u>

Approximately four hectares at the southern end of the main SME complex, and around 16 hectares within the vegetated part of the complex (south of the DNSDC site), is included in the area of the proposed rail corridor that forms part of the SIMTA proposal. However, the proposed rail link itself would only include a narrow strip of land in the vegetated area (approximately 672 metres long and 20 metres wide), before running along the existing East Hills Railway corridor.

Impacts would be limited to a small portion of the SME site, and would not have any impact on the heritage significance of the item.

Glenfield Farm

The SIMTA proposal involves the construction of an additional rail line from the intermodal terminal which would run through the Glenfield Waste Disposal facility before branching into two lines that would connect with the SSFL close to the curtilage of Glenfield Farm. Glenfield Farm overlooks this area, however, because the views from the property have already been compromised by railway development and the creation of the waste disposal facility, it is considered unlikely that the additional proposed rail links would have further impacts on the heritage significance of the item.

It is possible that the SIMTA proposal could result in an increase in noise levels along the rail line near Glenfield Farm. Possible impacts from noise and associated mitigation measures would be addressed in the Noise Impact Assessment for this project.

Buildings constructed as part of the SIMTA proposal may be visible from the Glenfield Farm property, although such views are likely to be at least partially obscured by existing vegetation within the property and along the Georges River.

It is possible that measures employed as part of the SSFL project to mitigate the visual impact of the Glenfield flyover may also reduce the potential impacts of the SIMTA proposal. The visual assessment report for the SSFL included general design strategies such as the use of screening vegetation and terracing or earth mounding to soften the impact of the flyover (Caldis Cook Group 2006: 25).

The SIMTA proposal would include the establishment of a landscaping 'buffer zone' along Moorebank Avenue, which would include screening vegetation with dense tree canopy cover. This would help to mitigate potential impacts on views from Glenfield Farm resulting from new buildings within the SIMTA site.

Recommendations

On the basis of background research and a site inspection and adhering to statutory obligations, it is recommended that;

- There are no non-Indigenous heritage constraints for the land within the proposed rail corridor, or the land within the Glenfield waste depot. The majority of these areas are heavily disturbed and do not contain known items of non-Indigenous heritage significance.
- There are no non-Indigenous heritage constraints on the proposal with regard to the heritage listed items of Kitchener House, the Holsworthy Group, Casula Powerhouse, and railway viaducts on the Southern Railway Line.

- There are no constraints on the SIMTA proposal with regard to Glenfield Farm. The SoHI for the item included in this report would need to be submitted to the NSW Minister for Planning and Infrastructure as part of staged planning applications at State level.
- The DNSDC site is highly significant and embodies important national heritage values, as indicated by its inclusion on the Commonwealth Heritage List. It is necessary to conserve the site's heritage values where possible. The site will no longer be protected under the EPBC Act once Defence's lease of the SIMTA site ends. It is therefore recommended that discussions are commenced with the appropriate heritage bodies regarding the listing of the site on the NHL or the SHR.
- The actions necessary before heritage impacts can occur at the SIMTA site will depend on the statutory context of the site at the time that approval is sought for each stage of the SIMTA proposal. A SoHI should be produced for each stage of the Project Application process, and each SoHI should address the legal status of the site and provide advice on required actions depending on whether the site is listed on the CHL, NHL, SHR, or unlisted at the time that approval is sought.
- It is recommended that an overall mitigation strategy should be developed for the DNSDC site, which may be based on Table 3 of this report.
- Further archaeological assessment and possible investigation or monitoring will be required in areas designated as having archaeological potential, where they would be impacted by the intermodal terminal development. The SoHIs for each stage of the Project Application process should address the necessary actions regarding areas of archaeological potential within the development area for each stage of the SIMTA proposal.
- If any archaeological deposit or item of heritage significance is located within the study area and is at risk of being impacted, the NSW Heritage Council should be notified and a heritage consultant/archaeologist should be engaged to assess the item to determine its heritage significance.
- As this project will be assessed under transitional arrangements for Part 3A of the *Environmental Planning and Assessment Act 1979,* permits and consents will not be required from the NSW Heritage Branch as a delegate of the NSW Heritage Council to impact on heritage items within sections of the study area not owned or leased by the Commonwealth.
- As part of the Project Applications stage a Statement of Commitments relating to non-Indigenous Heritage should be produced for the study area.

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1.0 Introduction and Background

The Sydney Intermodal Terminal Alliance (SIMTA) is a consortium of Qube Logistics and Aurizon. The SIMTA Moorebank Intermodal Terminal Facility (SIMTA proposal) is proposed to be located on the land parcel currently occupied by the Defence National Storage and Distribution Centre (DNSDC) on Moorebank Avenue, Moorebank, south west of Sydney. SIMTA proposes to develop the DNSDC occupied site into an intermodal terminal facility and warehouse/distribution facility, which will offer container storage and warehousing solutions with direct rail access to Port Botany. Construction of the rail connection from the SIMTA site to the Southern Sydney Freight Line (SSFL) will be undertaken as part of the first stage of works for the SIMTA proposal.

The SIMTA site is located in the Liverpool Local Government Area. It is 27 kilometres west of the Sydney CBD, 17 kilometres south of the Parramatta CBD, 5 kilometres east of the M5/M7 Interchange, 2 kilometres from the main north-south rail line and future Southern Sydney Freight Line, and 0.6 kilometres from the M5 motorway.

The SIMTA site, approximately 83 hectares in area, is currently operating as a Defence storage and distribution centre. The SIMTA site is legally identified as Lot 1 in DP1048263 and zoned as General Industrial under Liverpool City Council LEP 2008. The parcels of land to the south and south west that would be utilised for the proposed rail link are referred to as the rail corridor. The proposed rail corridor covers approximately 75 hectares and adjoins the Main Southern Railway to the north and south. The rail line is approximately 3.5 kilometres in length, 20 metres in width (variable width) and includes two connections to the SSFL, one south and one north.

The proposed rail corridor is owned by third parties, including the Commonwealth of Australia, RailCorp, private owners and Crown Land held by the Department of Primary Industries, and would link the SIMTA site with the Southern Sydney Freight Line. Existing uses include vacant land, existing rail corridors (East Hills Railway and Main Southern Railway), extractive industries, and a waste disposal facility. The rail corridor is intersected by Moorebank Ave, Georges River and Anzac Creek. Native vegetation cover includes woodland, forest and wetland communities in varying condition. The proposed rail corridor is zoned partly 'SP2 Infrastructure (Defence and Railway)' and partly 'RE1 - Public Recreation'. The surrounding Commonwealth lands are zoned 'SP2 Infrastructure (Defence)'.

A Concept Plan approval is being sought under the transitional provisions relating to Part 3A assessments under the Environmental Planning and Assessment Act 1979 (EP&A Act). On approval of the Concept Plan for the SIMTA proposal, staged development applications will be submitted to the NSW Department of Planning and Infrastructure as State significant development (SSD) under Part 4 of the EP&A Act. The first stage of development will include the rail link connection to the South Sydney Freight Line and on-site rail sidings within the DNSDC site.

This report provides an overall non-Indigenous heritage assessment, for the proposal as a whole, to support the application for Concept Plan approval as a transitional Part 3A project under the *Environmental Planning and Assessment Act 1979*. This assessment will fulfil the Director-General's Requirements for non-Indigenous heritage for the Concept Plan, as follows:

Table 1: Fulfilment of DGRs

Director-General's Requirements	Where addressed
Identify areas and items of non-indigenous heritage significance that	Section 5.0
could be impacted directly or indirectly, including potential archaeological deposits and the Australian Army Engineers Group and	Section 6.0
Kitchener House (formerly Arpafeelie) and an appropriate assessment of potential impacts (including site surveys)	Section 7.0
Detail how any impacts on items of indigenous and non-indigenous heritage would be addressed and managed as part of the subsequent	Section 7.0
project stages	Section 9.0

1.1 The Proposed Development

The Concept Plan application comprises four key components:

- Rail Corridor.
- Intermodal Terminal.
- Warehouse and Distribution Facilities.
- Ancillary Terminal Facilities.

Each of these components is described briefly in the sections below.

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Rail Corridor and Rail Link

The proposed rail link is proposed to connect to the SSFL, approximately 500 metres south of Casula railway station. It would then extend south, then east, crossing Georges River from the south-east corner of the Glenfield Waste Disposal Centre. The rail link would then continue east within the East Hills rail corridor, before heading north into the SIMTA Site.

The proposed rail link would be constructed over the following parcels of land:

- SSFL rail corridor on the western side of the Georges River.
- Glenfield Waste Disposal Centre on the western side of the Georges River.
- East Hills rail corridor.
- Irregular shaped portion of land owned by RailCorp and located to the east of the intersection between Moorebank Avenue and the East Hills Railway Line.
- Land to the south of the DNSDC site owned by the Commonwealth.

The proposed rail link would include the following infrastructure:

- Culvert crossing of Anzac Creek.
- A crossing under Moorebank Avenue in proximity to the existing grade-separated crossing which supports the existing East Hills Railway Corridor.
- Bridging the Georges River.

The indicative rail link alignment is shown in Figure 2.

Intermodal Terminal

The intermodal terminal is proposed to be located on the western part of the site, adjacent to Moorebank Avenue and away from the nearest residential properties. Key elements include:

- Five rail tracks of approximately 650 to 1,200 metres in length, including four permanent and one temporary siding.
- Container hardstand of approximately 90,000m2 located on both sides of the rail tracks to be used for container sorting and storage.
- Terminal administration offices and ancillary operational facilities of approximately 2,100m2.

- The intermodal terminal is proposed to operate 24 hours a day, 7 days a week to enable continuous receipt and dispatch of freight, accommodating a wide range of servicing demands. It will be serviced by world class and leading practice intermodal facilities including:
 - Automatic gantry systems
 - Modern container handling equipment
 - Modern control tower and support facilities
 - State-of-the-art rolling stock

The final selection of mobile and static equipment will be made at the detailed application stage for the rail terminal, taking into account compliance with the criteria established by way of the Concept Plan approval, including noise levels, visual impacts and air quality.

Warehouse and Distribution Facilities

Approximately 300,000m² of warehouses with ancillary offices are proposed to be constructed to the east of the intermodal terminal. The proposed warehouses are to be sited and designed to provide a physical barrier between the intermodal terminal and the nearest residential properties to assist with mitigating the potential acoustic and visual impacts of the rail activities. These warehouses include:

- Intermodal Terminal Warehouse and Distribution Facilities (Terminal Warehouses) approximately 100,000m² of warehouse floorspace will be located immediately adjacent to the intermodal terminal. These buildings will be designed for cross-dock operations and are anticipated to be occupied by large logistics operators dispatching goods in short turn-around times and with limited freight break-down.
- Large Format Warehouse and Distribution Facilities approximately 200,000m² of warehouse floorspace will be located on the eastern part of the SIMTA site, east of the Terminal Warehouse facilities. These buildings will have perimeter loading docks and are anticipated to be occupied by logistics operators who require larger areas for operations, hold stock for longer periods and/or undertake larger amounts of freight-breakdown before dispatching.

Each of the warehouses will be serviced by the central internal road system. The road system design and location of the car park to the east of the large format warehouse buildings are proposed to maximise the separation of staff and freight vehicle movements and minimise potential vehicle conflicts.

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Ancillary Terminal Facilities

A range of ancillary support facilities are proposed within the SIMTA Intermodal Terminal Facility to meet the needs of employees and visitors to the site. The final composition of these facilities will be based on demand and will be privately operated by individual tenants, however, it is anticipated that a total floorspace of approximately 8,000m² will be provided and the uses are likely to include:

- Site management and security offices.
- Retail and business service centre, potentially including a convenience store, banking facilities and post office.
- Meeting rooms/conference facilities available for hire by individual tenants.
- Sleeping facilities for drivers.
- A café/restaurant.

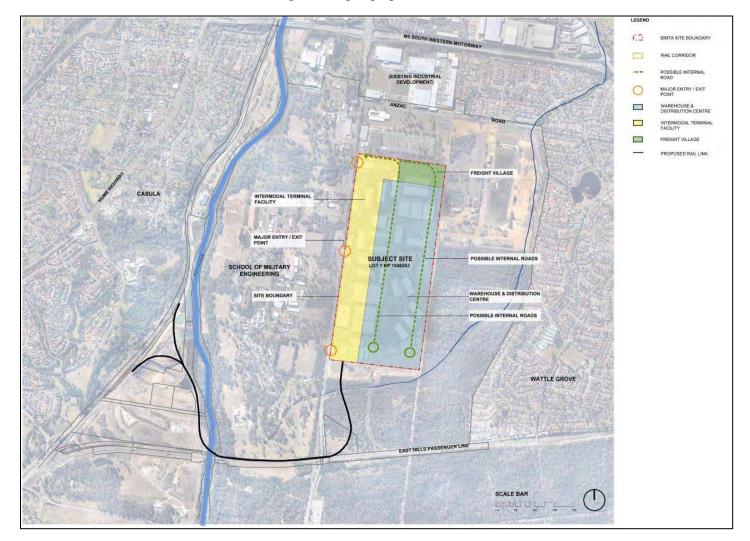
A centralised staff car parking area provided adjacent to the ancillary facilities will enable separation of heavy vehicle movements from private vehicle movements, particularly around the intermodal terminal warehouses.

Staging

The SIMTA Moorebank Intermodal Terminal Facility is proposed to be constructed in three stages, with the different stages as follows:

- Stage 1 Construction of the intermodal terminal and rail link.
- Stage 2 Construction of warehouses and distribution facilities.
- Stage 3 Extension of the intermodal terminal and completion of warehouses and distribution facilities.

Figure 1: Map of proposed land uses



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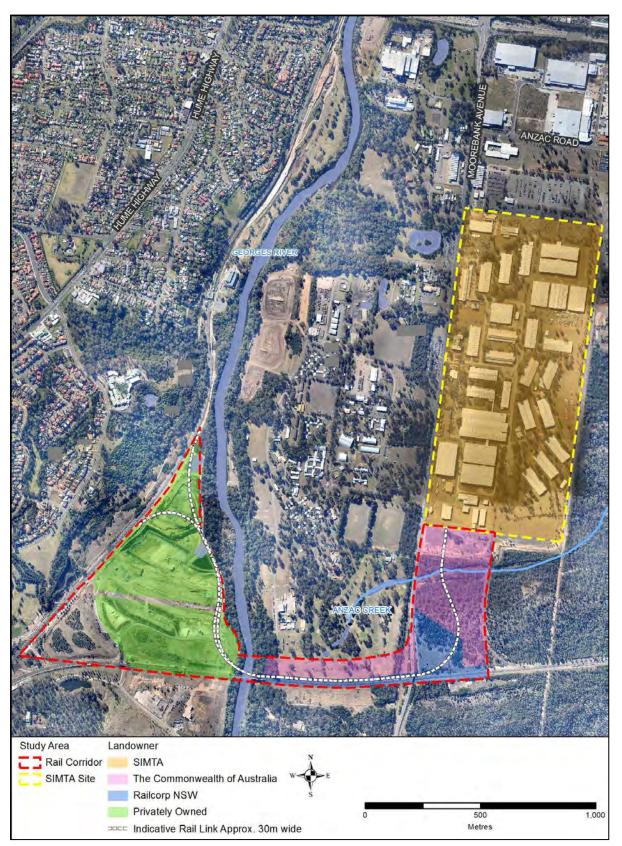


Figure 2: The dashed line indicates the boundary of the study area

1.2 Report Authorship

Archaeologist Adele Anderson and Principal Archaeologist Dr Sandra Wallace wrote this report. The assistance of Rebecca Sommer of Hyder Consulting is acknowledged in supplying relevant plans and other information.

2.0 Assessment Methodology

The methodology for this assessment included an initial search of heritage registers and documentary research, followed by a site survey to ground truth the desktop assessment and to identify and inspect any visible heritage items.

Heritage Register Search

Previously identified heritage items in the study area were located through a search of heritage registers, including:

- National Heritage List.
- Commonwealth Heritage List.
- Register of the National Estate.
- State Heritage Register.
- State Heritage Inventory.
- Section 170 Registers.
- Liverpool Local Environmental Plan 2008.
- Liverpool Development Control Plan 2008.

Documentary Research

Documentary research was conducted to investigate the general history of the locality, as well as the history of the study area itself, and of identified heritage items within it. The following libraries and archives were consulted:

- Liverpool Library, Local Studies Collection.
- National Library of Australia.
 - Maps (accessed through http://www.nla.gov.au/digicoll/maps.html).
 - Newspaper archives (accessed through <u>http://trove.nla.gov.au/ndp/del/search?adv=y</u>).
- Department of Lands.
 - Parish Map Preservation Project.
 - Aerial Photographs.
 - Spatial Information Exchange.
 - Old Title Records.
- National Archives of Australia.
- Australian War Memorial digital collection (<u>http://www.awm.gov.au/search/collections/</u>).

Site Survey

The site survey was undertaken by Dr Sandra Wallace and Adele Anderson (Artefact) on 13 July 2011. The survey was necessary to ground truth the desktop assessment and to investigate any heritage items in the study area.

The size of the study area, and its use by the military, meant that some parts of the SIMTA site could only be surveyed from a vehicle. However, areas where possible features were suggested by the documentary evidence were examined on foot. In most areas of the SIMTA site, surface visibility was poor because of the bitumen and concrete pavements covering the ground surface. A representative sample of the WWII structures at the SIMTA site were examined, and photographs taken of significant structural elements. The landscape was examined for any sign of former roads or railway sidings, and any visible features were noted and photographed.

The southern part of the School of Military Engineering was examined for any signs of former structures or landscape features possibly associated with the military installations in the area. However, this part of the study area had been heavily modified during the construction of the Royal Australian Engineers golf course and no evidence for any heritage items was visible.

The Glenfield Waste Disposal facility was not surveyed. It has undergone significant landscape modification and disturbance and it is therefore unlikely that any heritage items or archaeological deposits are present in this area.

3.0 Legislative Framework

There are several pieces of State legislation and regulation that are relevant to the current study. A summary of these Acts and the implications for the SIMTA proposal follow. It should be noted that as the project will be assessed under Part 3A transitional arrangements some statutory obligations will not apply.

The Heritage Act 1977

The NSW *Heritage Act 1977* is the primary piece of heritage legislation affording protection to items of state heritage significance and archaeological material and deposits in New South Wales. Under the Act, 'items of environmental heritage' include places, buildings, works, relics, moveable objects and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. Items of identified heritage afforded a level of State Significance are listed on the NSW State Heritage Register and are given automatic protection under the Act against any activities that may damage an item or affect its heritage significance.

If works are proposed within a State Heritage Register listed site consent is required under Section 60 of the Heritage Act. An exemption may be granted by the Heritage Branch.

The Heritage Act protects 'relics' as defined by the Act and such 'relics' include archaeological material. Section 139[1] of the Act states that:

A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.

Permits to excavate 'relics' which are not within an area listed on the State Heritage Register are issued by the Heritage Council under Section 140 of the Act. Exceptions may be made under certain conditions and would be approved in writing by the Heritage Council.

As this project is seeking approval under Part 3A transitional arrangements under the *Environmental Planning and Assessment Act 1979,* permits and consents from the Heritage Branch will not be required to impact heritage items.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. These are defined in the EPBC Act 1999 as matters of national environmental significance. Under the EPBC Act 1999, nationally significant heritage items are protected through listing on the Commonwealth Heritage List or the National Heritage List.

According to the EPBC Act 1999, a person must not take an action that has, will have or is likely to have a significant impact on any of the matters of environmental significance without approval from the Australian Government Minister for Sustainability, Environment, Water, Population and Communities (the Minister). An action is defined as a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things. If a proposed action is likely to have a significant impact on a nationally significant heritage item, a referral must be made to the Minister to seek approval.

NSW S170 Heritage and Conservation Registers

The NSW *Heritage Act* 1977 also requires all government agencies to identify and manage heritage assets in their ownership and control. Under Section 170 of the Act, government instrumentalities must establish and keep a register which includes all items of environmental heritage listed on the State Heritage Register, an environmental planning instrument or which may be subject to an interim heritage order that are owned, occupied or managed by that government body. Under Section 170A of the *Heritage Act* 1977, all government agencies must also ensure that all items entered on its register are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the NSW Minister for Infrastructure & Planning on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of identified sites, items and objects and are based on relevant NSW heritage legislation and statutory guidelines.

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act* 1979 establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits. The Act also requires that Local Governments prepare planning instruments (such as Local Environmental Plans, Development Control Plans) in accordance with the Act to provide guidance on the level of

environmental assessment required. The current study area falls within the boundaries of the Liverpool LGA and is within the area covered by the Liverpool Local Environmental Plan [LEP] (2008).

Liverpool Local Environmental Plan 2008

The aim of the LEP in relation to heritage, as stated in section 1.2 (g) is to conserve, protect and enhance the environmental and cultural heritage of Liverpool. The LEP lists items of heritage significance within the LGA and specifies conditions of development consent within heritage listed area. The relevant clauses of the LEP are as follows.

Requirement for consent

Development consent is required for any of the following:

(a) demolishing or moving a heritage item or a building, work, relic or tree within a heritage conservation area,

(b) altering a heritage item or a building, work, relic, tree or place within a heritage conservation area, including (in the case of a building) making changes to the detail, fabric, finish or appearance of its exterior,

(c) altering a heritage item that is a building by making structural changes to its interior,

(*d*) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,

(e) disturbing or excavating a heritage conservation area that is a place of Aboriginal heritage significance,

(f) erecting a building on land on which a heritage item is located or that is within a heritage conservation area,

(g) subdividing land on which a heritage item is located or that is within a heritage conservation area.

(3) When consent not required

However, consent under this clause is not required if:

(*a*) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:

(*i*) *is of a minor nature, or is for the maintenance of the heritage item, archaeological site, or a building, work, relic, tree or place within a heritage conservation area, and*

(*ii*) would not adversely affect the significance of the heritage item, archaeological site or heritage conservation area, or

(b) the development is in a cemetery or burial ground and the proposed development:

(*i*) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and

(ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to a place of Aboriginal heritage significance, or

(c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or

(d) the development is exempt development.

(4) Effect on heritage significance

The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item or heritage conservation area concerned. This subclause applies regardless of whether a heritage impact statement is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).

(5) Heritage impact assessment

The consent authority may, before granting consent to any development on land:

- (a) on which a heritage item is situated, or
- (b) within a heritage conservation area, or
- (c) within the vicinity of land referred to in paragraph (a) or (b),

require a heritage impact statement to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.

As the SIMTA project is seeking approval under transitional Part 3A arrangements, the Minister is not obliged to consider LEP requirements.

Liverpool Development Control Plan 2008

The Liverpool Development Control Plan (DCP) aims to conserve the heritage significance of heritage items and heritage conservation areas of Liverpool including associated fabric, setting, curtilage and views, and to conserve archaeological sites (DCP page 69). The DCP states that development applications relating to heritage items or places in the vicinity of a heritage item, require a Statement of Heritage Impact (DCP page 70). It also addresses the importance of setting, stating that development in the vicinity of a heritage item should retain significant views to and from the item, retain original landscaping, and provide an adequate area around the place to allow interpretation of the item (DCP page 73).

Part 2.4 of the DCP specifically addresses development on the Moorebank Defence Lands and states that an appropriate curtilage should be maintained around Kitchener House. In order to retain an appropriate visual setting, the scale and character of new development along Moorebank Avenue

should respect that of Kitchener House, should not intrude within its curtilage, and should be screened by planting (DCP page 24).

As the SIMTA project is seeking approval under transitional Part 3A arrangements the Minister is not obliged to consider DCP requirements.

Implications of Legislation

As the SIMTA project is to be assessed under Part 3A transitional arrangements permits and consents under the *Heritage Act 1977* are not required to impact heritage items within sections of the study area not owned or leased by the Commonwealth. Under Part 3A transitional arrangements, consideration of the heritage obligations of the Liverpool LEP and the Liverpool DCP are at the discretion of the Minister.

Legal status of heritage items on the SIMTA site

The DNSDC is listed on the Commonwealth Heritage List (CHL) and is currently protected under the EPBC Act. However, items can only be included on the CHL while they are located within a "Commonwealth Area" (c341C (2) EPBC Act). The SIMTA site will only be located within a "Commonwealth Area" for as long as Defence leases the site, and once that lease expires or is relinquished, the SIMTA site would no longer be within a "Commonwealth Area" and would need to be removed from the CHL (s341L EPBC Act). It is possible that the site may then be considered for listing on another heritage register, such as the NHL or SHR. If either of these listings were to occur prior to the granting of development approval for the SIMTA site, SIMTA would be required to fulfil additional obligations under the relevant heritage legislation.

Management responsibilities for heritage items on the SIMTA site

The EPBC Act imposes obligations on the Commonwealth to prepare Heritage Management Strategies (HMSs) and Heritage Management Plans (HMPs) for places on the CHL that it "owns or controls" (s341S and s341ZA). The DNSDC is one such place, as Defence is considered to "control" a place if it has rights under a lease or license to occupy or use the place and to take actions in relation to the place that could potentially have an impact on its heritage values. The Commonwealth is required to act in accordance with the HMSs and HMPs to minimise adverse impacts to the heritage values of listed places (s341V and s341ZC).

Defence has prepared a HMS which establishes Defence's overall approach to heritage management, however, it is not known whether a HMP has yet been prepared for the DNSDC. Even if a HMP does

exist for the DNSDC, the obligation to comply with the plan will only apply to Defence while it leases the SIMTA site. SIMTA itself would only be bound by the Defence management documents if:

- SIMTA had previously agreed (by contract, deed, or other form of legally binding agreement) to be so bound; or,
- SIMTA agrees to enter into a binding agreement with Defence in the future, which includes obligations to protect heritage values.

Therefore, the ongoing heritage protection measures that will exist once Defence vacates the SIMTA site will entirely depend on:

- The terms of any contractual obligations between SIMTA and Defence that operate at that point in time; and,
- Whether the SIMTA site is subsequently listed on the NHL or SHR and thereby becomes subject to the regulatory requirements of the relevant legislation.

Conclusion

Before works begin on each stage of the SIMTA proposal, Defence will have vacated the relevant areas of the site. However, because approval is being sought at the present time, while the entire area is still leased by Defence, the approvals process will need to meet the requirements of the EPBC Act 1999.

A Commonwealth EIS must be submitted to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities (the Minister) for approval, for each stage of the SIMTA proposal. A NSW State EIS must also be submitted to the NSW Minister for Planning and Infrastructure for approval for each stage.

4.0 Historical Context

4.1 Early settlement

The first land parcels in the Liverpool area were granted in 1798. In 1810 Governor Macquarie founded Liverpool and named it after the Earl of Liverpool. The road connecting Liverpool to Sydney was completed in 1813 and settlement grew rapidly. The rich soils on the floodplain of the Georges River provided for a growing agricultural industry. In the 1860s many small farmers moved away from the river after a particularly large inundation and the area became open to larger scale agriculture such as dairy farming. Up until the mid-twentieth century agriculture co-existed with suburban areas in the Liverpool region.

4.2 The military at Liverpool

The association of military activities with the Liverpool district began in the early 1800s, when soldiers were stationed in the area to provide protection to early settlers and to oversee convict work gangs, and a military barracks was constructed at the corner of George and Moore Streets (Brooks and Associates 2002:8).

During the early 1900s, the area north of the SIMTA site hosted several military training camps. These were held annually as part of the 'Easter Encampments', a training programme which also involved camps at Paddington and Goulburn (*The Sydney Morning Herald* (SMH) 27/3/1906:6). By 1907, a military camp had been established on the eastern side of the Georges River, with a rifle range further south. The land which is currently occupied by the DNSDC formed part of this camp (Brooks and Associates 2002:8).

In January 1910, manoeuvres were held at the Liverpool camp for the inspection of Lord Kitchener, who was visiting Australia to give advice regarding the development of the national defence forces (Brooks and Associates 2002:8). *The Daily Telegraph* described the area used for the manoeuvres:

"The camp was pitched upon the paddocks to the left of the railway station on the ground that has been similarly occupied in recent years and which is nearly all included in the military manoeuvre area which the Commonwealth Government is endeavouring to secure ... the training ground embraces a stretch of country extending from Liverpool, on the southern line, across Heathcote on the Illawarra system, and it provides not only very fair opportunities for moving large bodies of troops in tactical exercises, but also

has within its limits well equipped ranges for artillery and infantry shell and ball practice." (*The Daily Telegraph* 7/1/1910:7)

Kitchener recommended that large, central training grounds should be established in each State (SMH 19/2/1910:12). His visit resulted in the acquisition of large areas of land around Liverpool by the Government, for use as permanent military training camps. The land was resumed in stages over the following years and included the acquisition of 883 acres near Holsworthy in 1912 for the establishment of a Remount Depot and a Veterinary Hospital for horses, followed by 16,868 acres in 1913, which included the study area (Brooks and Associates 2002:4).

World War One

By 1913, the Liverpool camp accommodated 2000 troops in tents (SMH 3/1/1913:10), and during WWI it became the main training centre in New South Wales. In a plan dated to 1915, Liverpool Camp is located between the Georges River and Moorebank Avenue, and extends around 1.5 kilometres south from Illawarra Road, which was located in roughly the same position as the present Newbridge Road. South-east of the camp are large areas marked 'Stores', which encompass the current DNSDC site. East of the storage area is a rifle range.

Initially, new recruits were encamped in long lines of tents on the eastern bank of the river, though these had been replaced with huts by the end of 1916. A detailed plan of the camp from July 1917 shows that the camp was well established and included a large number of huts, kitchens, and mess buildings, as well as a saw mill, four church buildings, a post office, bank, power house, Y.M.C.A building, hospital buildings, nurses quarters, and buildings for the salvation army and the Red Cross.

Units that trained at the camp during the WWI included the Engineer and Field Mining companies, the field hospital, infantry and reinforcement units, and the artillery and light horse units.

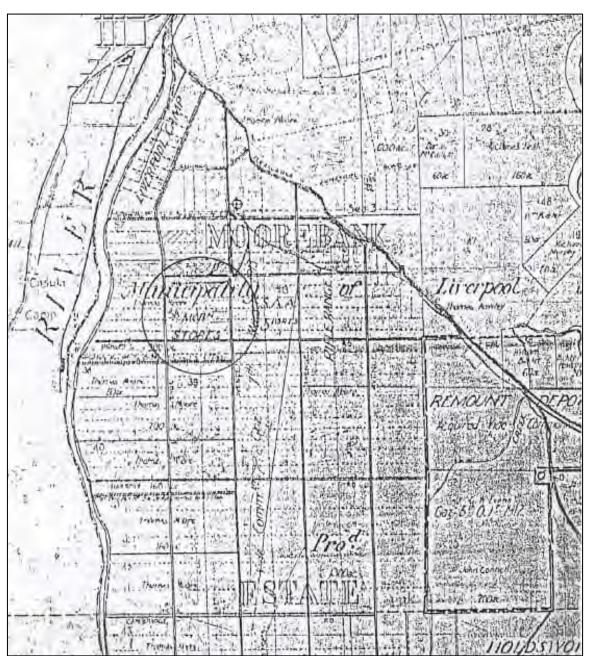


Figure 3: Plan of the Liverpool Manoeuvre Area c.1915 (Source: Brooks & Associates 2002:7)

Figure 4: A recruit marking tent line boundaries at the Liverpool camp c. 1914 (Source: Australian War Memorial [AWM], ID No: H03409)



Figure 5: Accommodation huts, Oct 1916 (Source: AWM, ID No: C01205)



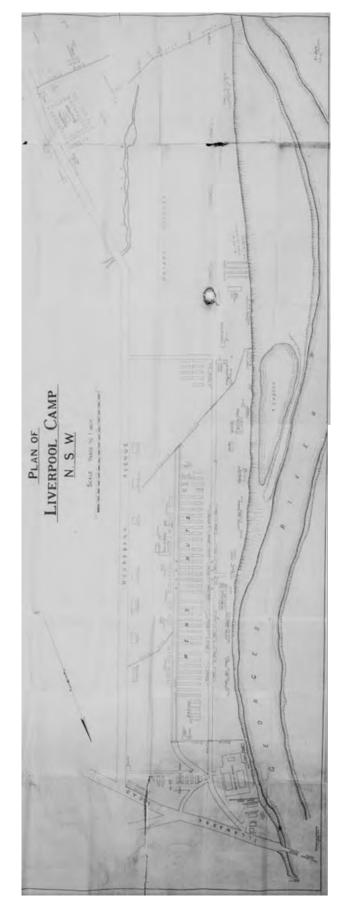
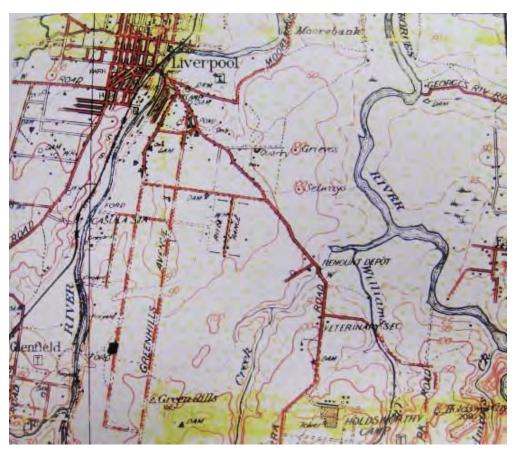


Figure 6: Plan of Liverpool Camp, 1917 (Source: Liverpool City Council http://ebranch.liverpool.nsw.gov.au/electronicbooks/Subdivisionplans.pdf)

In 1913, a Remount Depot had been established at Holsworthy, approximately 4 kilometres south-east of the Liverpool camp. The Remount Branch of the Australian Military Forces had been established in 1911 and was responsible for purchasing, breaking in, and caring for military horses. Initially, the Remount Depot at Holsworthy mainly supplied horses for artillery and transport, but during WWI it provided mounts for the enlisted Light Horsemen who came from other parts of NSW and Queensland to enrol, train, and embark from Sydney. By 1914, a Veterinary Section was also established at Holsworthy, to care for the horses (Ludlow & Snowden 1991:64-5).

Also located at Holsworthy was a large internment camp for 'enemy aliens' and prisoners-of-war, which became known as the German Concentration Camp. The area occupied by the camp was never clearly defined, but measured approximately 1.5 kilometres by 1 kilometre, and was located south of the Remount Depot and Veterinary Section (Godden Mackay Logan 1995:2/1).

Figure 7: 1917 plan showing Liverpool camp, the Remount Depot, the Veterinary Section, and the Holsworthy internment camp (Source: Ludlow & Snowden 1993:56)



Internees from the German Concentration Camp assisted in the construction of new railway lines to link the different military establishments at Liverpool and Holsworthy (Ludlow & Snowden 1993:62). The Government wanted the new lines to service the Liverpool camp, the Artillery Range to its east, ordnance and ammunition stores two miles from the main camp, the Remount Depot, Veterinary

Section, and German Concentration Camp (Ludlow & Snowden 1993:60). Construction of the line began in February 1917 and was completed in January 1918, with additional sidings added in the following years. First the Ordnance Store Siding opened in April 1919, followed by the Ammunition Stores Siding on Anzac Parade, opened in October 1920 (Ludlow & Snowden 1993:60-1).

Figure 8: Construction of a railway cutting near the German Concentration Camp by internees, 1917 (Source: Oakes 1997:2)



World War Two

The facilities at Liverpool and Holsworthy continued to be used for military training during the interwar years, although on a much reduced scale, before the beginning of WWII necessitated the nation-wide expansion of sites associated with defence training, manufacture, and storage. In the Liverpool area there was an enormous expansion of army installations, with about 40,000 troops intraining at Liverpool, Holsworthy, and Ingleburn (Department of Defence 'History of the 5th Brigade' http://www.army.gov.au/HQ5BDE/Unit_History.asp. Accessed: 16/7/11)

The School of Military Engineering was established to the south of Liverpool camp in 1939, immediately after the declaration of war. During the war 7,450 students were trained at the school (Liverpool Library Local Studies pamphlet *'The Army at Liverpool'*). By 1943, the area of Liverpool camp between the Georges River and Moorebank Avenue accommodated the Armoured Fighting Vehicle Trade Training Centre (AFVTTC), and the Australian Electrical and Mechanical Engineers (AEME), while a sub depot had been established on the southern corner of Moorebank Avenue and Anzac Road.

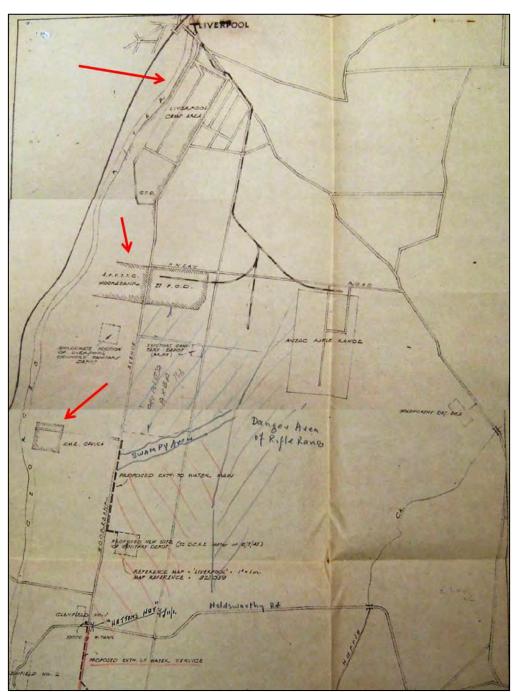
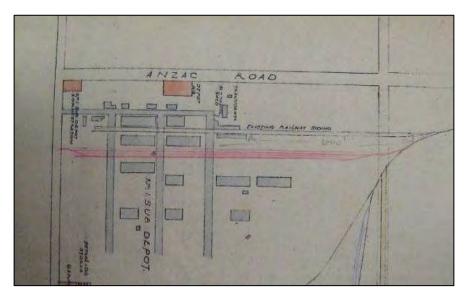


Figure 9: Plan of Liverpool military area 6/10/1943, red arrows indicate the Liverpool camp area, the AFVTTC base, and the School of Military Engineering (Source: NAA: SP459/1, 420/7/1153)

Figure 10: Detail of No. 1 Sub depot on corner of Anzac Rd and Moorebank Avenue 16/9/43 (Source: NAA: SP459/1, 420/7/1153)



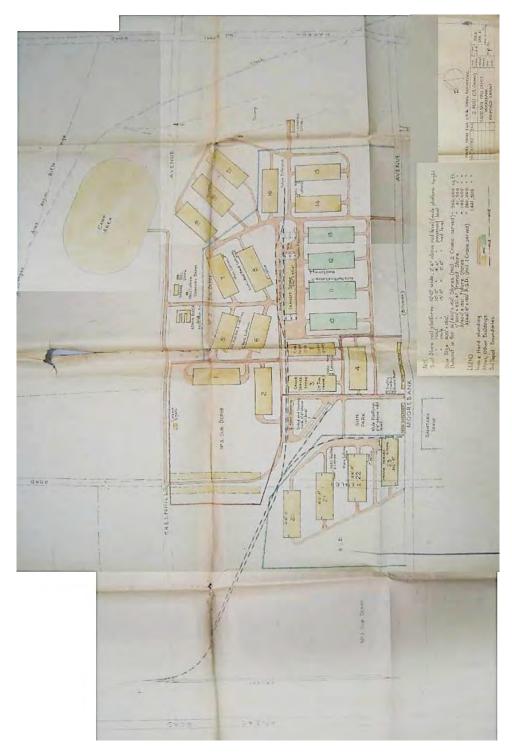
In September 1943, it was proposed that Ordnance Stores should be established at Moorebank for the 5th Australian Base Ordnance Depot (5 Aust. BOD) and by December a plan for the proposed layout of the Ordnance Depot had been drawn up. In January 1944, urgent approval was sought for the construction of four of the proposed storehouses (Numbers 10, 11, 12 and 13) due to a shortage of storage facilities in the area (*Letter from Quarter-Master General 11/1/44*, NAA: SP459/1, 420/7/1153). Approval was granted in February, and these buildings formed the first construction phase of the depot, now known as the DNSDC (*Letter from Quarter-Master General 16/2/44*, NAA: SP459/1, 420/7/1153). Buildings 10 and 11 are still present at the DNSDC site. The completed depot was to include:

- 17 stores (400' x 150' in size).
- 2 crane served stores (400' x 150').
- 19 offices attached to each store (40' x 20').
- 1 transit store (500' x 83'4'').
- Office acc. inside transit store.
- 1 cinematograph store (60' x 40').
- 2 inflammables stores (100' x 50').
- 20, 000 square feet of equipment shelters.
- 1 traffic control building (18' x 17'8'').
- 1 strong room (50' x 50').
- 1 Depot Administration building in three blocks (135'4'' x 111' combined size).
- 1 combined garage, service station, fire station, P.O.L store, Tpt office (97' x 25').
- 1 SW guard house (60' x 20').
- 1 case making building (3,750 square feet).
- 7 men's latrines.
- 3 AWAS latrines.
- 3 AWAS latrines and rest rooms.

(NAA: SP459/1, 420/7/1153)

It was intended that the depot would have an ongoing role in peace-time as well as war-time (*Letter from Colonel Garnsey 5/4/44*, NAA: SP459/1, 420/7/1153).

Figure 11: Plan of proposed layout of Moorebank Ordnance Depot 25/4/44 (Source: NAA: SP459/1, 420/7/1153)



In April 1944, the AFVTTC transferred to the Ingleburn army camp and the vacated Liverpool camp buildings to the west of Moorebank Avenue were then used to accommodate the personnel of 5 Aust.

BOD, as well as the 8th Australian Advanced Workshops of the AEME, who had been transferred from Bathurst. By 1945, the Australian Women's Army Service (AWAS) was also housed here (NAA: SP459/1, 420/7/1153).

Figure 12: 5th Aust. BOD exterior view of No. 9 Bulk (Crane Served) Technical Store Shed, 23/1/46 (Source: AWM, ID No. 124623)



Aerial photographs of the DNSDC site show that little change occurred between the late 1940s and early 1990s, when five of the original 20 store buildings (in the south-west corner) were demolished and replaced with larger modern buildings (Figure 15). The remaining 15 store buildings were also reclad at this time, with modern steel sheeting replacing the original asbestos walls and new concrete floors laid (Brooks and Associates 2002:8).

In the early 1990s, the site became the Defence National Storage and Distribution Centre, as part of a reorganisation of defence supply services and warehousing arrangements. The DNSDC is the central warehouse for Australia's armed services, and also includes maintenance and engineering facilities (Brooks and Associates 2002:9).

Figure 13: Aerial photograph showing the Ordnance Depot/DNSDC site in 1951 (Source: Brooks & Associates 2002:9)



Figure 14: Aerial photograph of the DNSDC site 2011 (Source: Google Earth)

Figure 15: Plan showing the current location of building types within the DSNDC site.



5.0 Register Listings

5.1 Statutory listings

Statutory registers provide legal protection for heritage items. In NSW the *Heritage Act* 1977, and the *Environmental Planning and Assessment Act* 1979 give legal protection. The State Heritage Register, the S170 registers, and heritage schedules of Local Environment Plans are statutory listings. Places on the National Heritage List and the Commonwealth Heritage List are protected under the *Environment Protection and Biodiversity Conservation Act* 1999.

A search of the following heritage registers was originally conducted in November 2011, with a second search carried out in June 2013 to confirm that the listings were still current.

Commonwealth Heritage List

The Commonwealth Heritage List, established under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), is a list of natural, Indigenous and historic heritage places which are either entirely within a Commonwealth area, or outside the Australian jurisdiction and owned or leased by the Commonwealth or a Commonwealth Authority. These include places connected to defence, communications, customs and other government activities that also reflect the development of the nation. To be entered on the Commonwealth List, a place must have 'significant' heritage value to the nation. Items on the list are under statutory protection.

The DNSDC site encompassing the SIMTA site is listed on the Commonwealth Heritage List. Although it is no longer owned by the Commonwealth, the site is under lease to the Australian Defence Force and will therefore remain protected under the EPBC Act 1999 until this lease expires.

National Heritage List

The National Heritage List has been established to list places of outstanding heritage significance to Australia. It includes natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation.

No sites in or near the study area are included on the National Heritage List.

Section 170 Registers

Section 170 requires government agencies to keep a Register of heritage items. A S.170 Register is a record of the heritage assets owned or managed by a NSW government agency. Relevant s170 registers were checked (Sydney Water, RTA, Railcorp).

No s170 register listings were found within the study area, but the nearby railway viaducts at Woodbrook Road & Congressional Drive, Casula, are listed on RailCorp's s170 Register.

The State Heritage Register

The State Heritage Register is a list of places and objects of particular importance to the people of NSW and is administered by the Heritage Branch of the Office of Environment and Heritage. The register lists a diverse range of over 1,500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.

Glenfield Farm, adjacent to the Glenfield Waste depot is listed on the State Heritage Register.

Liverpool Local Environmental Plan (LEP) 2008

The Liverpool LEP includes a list and maps of items/sites of heritage significance within the LGA. Only one of these items, the Australian Army Engineers Group (or School of Military Engineering), falls within the study area. Six other listed items are located in the vicinity of the study area.

Suburb	Item	Within the	Lot/DP	Significance	LEP Item
		study area?			number
Moorebank	Australian Army	Yes, southern	Lots 3001-	Local	57
	Engineers Group.	section only	3005, DP		
			1125930		
Casula	Casula Powerhouse (former	No	Lots 1 and 2, DP	Local	10
	power station)		106957; Lot 1,		
			DP 1115187		
Casula	Railway viaduct	No	N/A	Local	11
			Located 300m		
			south of Casula		
			Powerhouse,		
			Main Southern		
			Railway Line		

Table 2: Heritage items within and near the study area - Liverpool LEP

Casula	Two railway viaducts	No	N/A Located Woodbrook Road, Main Southern	Local	12
Casula	Glenfield Farm Group, including homestead, barn (former dairy and stables)	No	Railway Line Lots 1 and 2, DP 1126484	State	14
Holsworthy	Holsworthy Group, including powder magazine and former officers' mess, corporals' club, internment camp, Holsworthy railway station lock-up/gaol, German concentration camp	No	Lot 1, DP 825745; Part Lot 820, DP 1011240; Lot 2, DP 1048198; Part Lot 32, DP 848597; Part Lot 10, DP 1091209	State	32
Moorebank	Kitchener House (formerly 'Arpafeelie')	No	Lot 1001, DP 1050177	Local	58

Figure 16: Liverpool LEP Heritage Map (Sheet HER_013)

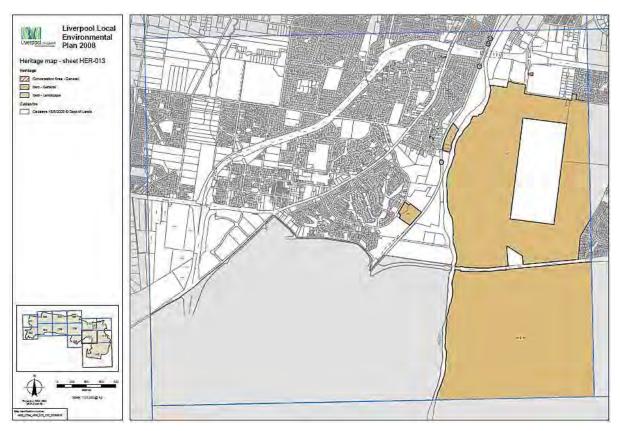
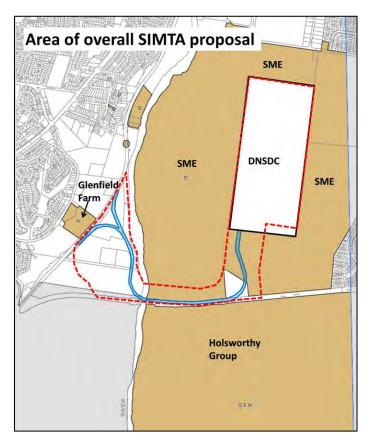


Figure 17: Detail from Liverpool LEP Heritage map, with boundaries of study area in red and proposed rail link in blue (Sheet HER_013)



5.2 Non-statutory listings

Register of the National Estate

The Register of the National Estate (RNE) is a list of natural, Indigenous and historic heritage places throughout Australia. It was originally established under the Australian Heritage Commission Act 1975. Under that Act, the Australian Heritage Commission entered more than 13,000 places in the register. Following amendments to the Australian Heritage Council Act 2003, the RNE was frozen on 19 February 2007, and ceased to be a statutory register in February 2012. The RNE is now maintained on a non-statutory basis as a publicly available archive and educational resource.

Kitchener House is included in the Register of the National Estate, while the DNSDC is included on the interim list of the Register. This means that it had been publicly proposed for entry in the Register and was on the Interim List at 1 January 2004 when the Australian Heritage Commission was abolished.

The nearby sites of Glenfield Farm and the Holsworthy Group are also listed on the Register.

6.0 Existing Environment

6.1 Heritage listed items within the study area

The DNSDC site

The DNSDC site is a rectangular block of land covering approximately 108 hectares. The site is bounded by Anzac Road on the north, Moorebank Avenue on the west, the Greenhills Ave road reserve to the east, and an area of natural bushland on the south and east. The main entrance to the site is located midway along Moorebank Avenue.

Figure 18: Building 9, at the centre of the DNSDC site - a typical WWII composite timber and steel warehouse building (Source: Brooks & Associates 2002:11)

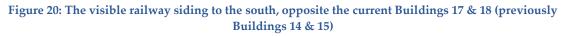


The site includes a number of large storage sheds along with smaller ancillary, administration, and workshop buildings. Among these structures are twenty timber post and beam buildings dating to World War Two. Fifteen of these are of timber post and beam construction, with nine internal bays. They retain their original timber structure, though they have been reclad with modern steel sheeting, and have new concrete floors. Three of the buildings are composite timber and steel warehouses which have three bays of timber post and beam construction on either side of a central raised bay. The central bay has a steel frame to support an overhead gantry crane. The final two buildings are the smaller Quartermaster's Store, with five bays of timber post and beam construction, and the Carpentry Workshop, which are timber framed and three bays wide. Both the Quartermaster's Store and the Carpentry Workshop are constructed of Oregon, an American wood (Brooks and Associates 2002:10).

Figure 19: Interior of Building 79, showing original timber post and beam construction



The alignments of rail sidings that once ran through the site are still visible in the landscape through the location and orientation of some of the buildings and roads, while to the south a remaining siding is still clearly visible.





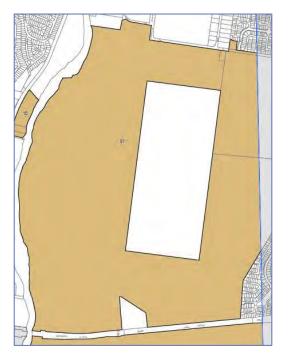
A number of buildings were constructed within the DNSDC site in the mid-late 1990's (Figure 15). These include a cluster of buildings in the south western corner of the site and a number of buildings in the northern section of the site. These buildings do not share the same high heritage values as the WWII structures. Even so, as these buildings are within the DNSDC curtilage as listed on the Commonwealth Heritage Register, the relationship of these buildings to others in the military complex could have some heritage value.

The School of Military Engineering (SME)

Although the section of the SME which is included in the study area is disturbed and does not contain significant heritage items, the significance of the site as a whole should be considered.

The School of Military Engineering is listed on the Liverpool LEP (2008) under its alternate name, the Australian Army Engineers Group (Item 57). This listing notes that the site includes the Royal Australian Engineers (RAE) Memorial Chapel, RAE Monument, Major General Sir Clive Steele Memorial Gates, and The Cust Hut. According to the LEP Heritage map, Item 57 also encompasses most of the land surrounding the DNSDC site, between the East Hills railway line and Anzac Road, as well as a building on the north side of Anzac Road. This building is not specifically mentioned in the LEP, and is listed separately in the State Heritage Inventory as an 'Army Building (Former)'.





The main complex of the SME covers approximately 220 hectares between the Georges River and Moorebank Avenue. The SME is accessed from Moorebank Avenue and within its grounds is a group of heritage items associated with the Royal Australian Engineers, including the Royal Australian Engineers monument, the Plant Hangar, and the Memorial Chapel. Located at the south of the site is

the Royal Australian Engineers golf course, which overlooks the East Hills rail line. The site is currently in use for army training.

The former army building north of Anzac Road is a long, rectangular corrugated iron shed. This building is some distance from the study area and has no views to or from the study area. Therefore, it will not be impacted by the proposed development.

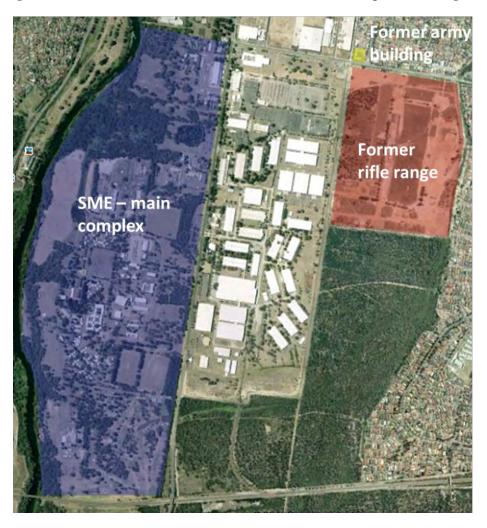


Figure 22: The locations of features included in Item 57 of the Liverpool LEP (Google Earth)

The rest of the land encompassed by Item 57 on the Liverpool LEP listing now consists mostly of bushland. Since this land was part of Liverpool's military precinct from 1915 and has remained undeveloped since the 1940s, it is possible that archaeological evidence for military activities survives there. To the north, between the SIMTA site and the residential development at Wattle Grove, is the area used as a rifle range from WWI. Two structures that were visible on an aerial photograph from 1943 are still present at the site.

6.2 Heritage listed items in the vicinity of the study area

There are five locally listed items in the vicinity of the study area. These are Kitchener House, The Holsworthy Group, Casula Powerhouse, and two sets of railway viaducts. There is also one item, Glenfield Farm, listed on the State Heritage Register.

Kitchener House

Kitchener House is listed on the Liverpool LEP (2008) and the Register of the National Estate.

The site is located at 208 Moorebank Avenue, north of the SIMTA site, on an irregular block of approximately half an acre. The single-storeyed Federation-style house is set back about 20 metres from the road, and is surrounded by a landscaped garden which includes a number of mature trees. The house is thought to have been built between 1895 and 1905 and was home to various senior military officers and their families until the 1990s.

Figure 23: Detail of Kitchener House (Item 58) on Liverpool LEP Heritage Map (Sheet HER_013)

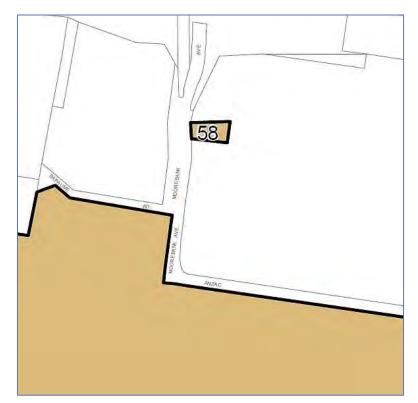


Figure 24: Kitchener House from Moorebank Avenue 2004 (Source: State Heritage Inventory listing "Kitchener House")



The Holsworthy Group

The Holsworthy Group is located within the Holsworthy Training Area, accessed by Artillery Road, Holsworthy. The Group includes the remaining elements of the Old Army Camp and German Concentration Camp, with a collection of early 20th century structures and building remains located around a former parade ground, along with road surfaces and tree plantings.



Figure 25: The Holsworthy Group (Items 32 & 33) as listed on the Liverpool LEP ((Sheet HER_013 & _015)

Casula Powerhouse

The Casula Powerhouse is listed on the Liverpool LEP. This item is also known as the Powerhouse Regional Arts Centre and is located to the east of the Casula Railway Station and the Southern Railway line. It consists of the main powerhouse building, which has two adjoining sections of three and four storeys, several ancillary brick buildings, three large steel tanks, and a former coal loading area between the powerhouse and the railway line.

The powerhouse was built in the 1950s by the Electricity Commission of NSW, as one of a number of "package" power stations, all of similar design. These were built to provide interim local generating capacity during a period of power shortage following WWII.

Figure 26(left): Detail of Casula Powerhouse (Item 10) from the Liverpool LEP Heritage map (Sheet HER_013) Figure 27 (right): Casula Powerhouse from NW (Source: NSW Heritage Database)



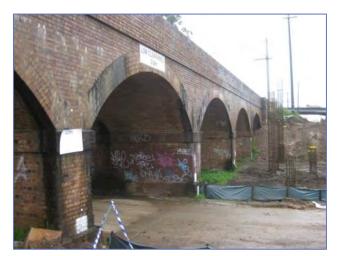


Railway Viaducts

Two sets of railway viaducts are listed on the Liverpool LEP:

Item name	Address	Item number
Railway viaduct	300m south of Casula Powerhouse, Main Southern Railway Line	11
Two railway viaducts	Woodbrook Road, Main Southern Railway Line	12

Figure 28: Railway viaduct at Woodbrook Road, Casula (Source: NSW Heritage Office)

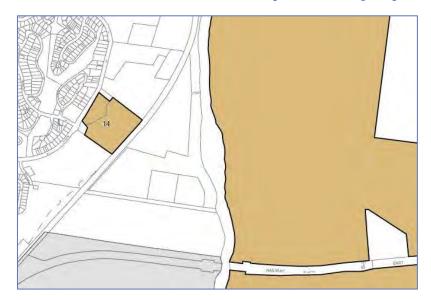


Glenfield Farm

Glenfield Farm is listed on the State Heritage Register, and is of exceptional historical significance as one of the few surviving rural farm complexes in New South Wales dating from the original land grant of 1810 and still capable of use for family living and limited farming activities. The buildings on the property are located to the western part of the listed area on top of a ridge and contain a 14 room homestead, a dairy, coach house and privy. The land to the east of the site consists of former rural pastures and the original site fencing (State Heritage Inventory listing "Glenfield Farm"). The curtilage of the item extends down to the Southern railway line, and is located only around 50 metres from the western extent of the proposed new rail link. The house and farm buildings are located approximately 220 metres from the proposed rail line.

The house overlooks the Glenfield Waste Disposal facility and the Southern railway line.

Figure 29: Detail of Glenfield Farm (Item 14) from Liverpool LEP Heritage map (Sheet_013)



7.0 Impact Assessment

Because designs for the SIMTA project are still being developed, it is not currently possible to prepare adequate Statements of Heritage Impact for the heritage items that will be affected. The following section of this report will assess the significance of each item and provide a preliminary assessment of the potential impact of the SIMTA proposal; however, more detailed impact assessments will be required at the completion of design as part of the Project Application phase/s.

7.1 Heritage listed items within the study area

7.1.1 The DNSDC site

Assessment Criteria

The following assessment of heritage significance of the DNSDC site has been prepared in accordance with the 'Assessing Heritage Significance' (2001) guidelines from the NSW Heritage Manual. The table below outlines a selective summary of the significance assessment detailed in the Australian Heritage Database entry for the site, and the heritage assessment conducted by Brooks and Associates in 2002.

Criteria	Description	Significance Assessment
A – Historical Significance	An item is important in the course or pattern of the local area's cultural or natural history.	The site is highly significant for its association with the development of Australia's military forces since the early 20 th century and particularly for its direct association with the military expansion in the early years of the Second World War. The site has played a continual role in Australia's
		military infrastructure until the present day.
B – Associative Significance	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history.	The site has a significant association with the Australian Defence Forces.
C – Aesthetic Significance	An item is important in demonstrating aesthetic	The WWII buildings demonstrate the unique aesthetic characteristics of military buildings constructed during the

Criteria	Description	Significance Assessment
	characteristics and/or a high degree	war, and a high degree of technical achievement.
	of creative or technical	
	achievement in the local area.	
D – Social	An item has strong or special	The site has social significance for the extensive community
Significance	association with a particular	of Defence personnel who have worked at the site through
	community or cultural group in the	its history, and for the local community of Liverpool and the
	local area for social, cultural or	broader community of Sydney, as the location of Defence
	spiritual reasons.	operations since 1915.
E – Research	An item has potential to yield	Moderate scientific significance for its ability to show
Potential	information that will contribute to	evidence of the boundaries and alignments of the original
	an understanding of the local area's	land grants in the area, the 1888
	cultural or natural history.	Moorebank Farms subdivision, and part of the Liverpool –
		Anzac Rifle Range –
		Holsworthy military railway line.
		Low-moderate archaeological significance for its potential to
		yield information regarding the early use of the site and,
		particularly, its use during WWII.
		The extant WWII buildings have significance for their
		innovative construction method, as rare and representative
		examples of timber post and beam store buildings
		constructed during World War II.
F – Rarity	An item possesses uncommon, rare	The group of 18 World War II buildings at the site are the
	or endangered aspects of the local	only known surviving group of such buildings in NSW in
	area's cultural or natural history.	Defence use. The only other known site with similar World
		War II timber store buildings, and which remains in Defence
		ownership, is Bandiana, Victoria.
G –	An item is important in	The timber post and beam store buildings have significance
Representative	demonstrating the principal	as representative examples of this type of store building
	characteristics of a class of NSWs	constructed during World War II for military storage
	(or the local area's):	purposes throughout the east coast of Australia.
	or natural places; or or	

Statement of Significance

The following Statement of Significance is taken from the Australian Heritage Database entry for the Defence National Storage and Distribution Centre:

"The Defence National Storage and Distribution Centre (DNSDC) is historically highly significant. As a military storage site it dates from 1915, and the Centre is important for its associations with the development of Australia's military forces prior to and during the First World War and particularly for its direct association with the military build-up in the early years of the Second World War. The DNSDC has continued to play an important role in Australia's military infrastructure, right up to the present time. The place also has an association with early nineteenth century settlement in the Liverpool area.

The DNSDC contains twenty Second World War post and beam warehouses, many of which, despite being re-clad, are good examples of their type. Particularly important are the fifteen timber post and beam military warehouses of the nine-bay type which played such an important role during the war and which were the widest post and beam military warehouses. Also important are the three composite steel and timber type warehouses. Post and beam military warehouses are small in number today, giving those at this site substantial rarity value. Additional interest is inherent in the fact that the buildings are understood to have been prefabricated in the United States and shipped to Australia in the early 1940s. Further, the alignment of part of the former military railway system is evidenced by the alignment and siting of some of the buildings and roads at the site.

The Centre is of social value for Defence personnel, for the Liverpool community and for the broader Sydney community on account of the long-term Defence associations with the site."

Also worth including here is an extract from a 1995 report on Department of Defence Timber Buildings from 1939-1945, which gives a clearer idea of the broader significance of WWII-era standard timber buildings, as part of a nationwide group:

"These buildings are culturally significant as they demonstrate the versatility and selfreliance of the Australian Government and people in a time of national emergency. Under direct military threat, the nation embarked on total mobilisation in its own defence and as it did so, reorganised itself to make the most efficient use of the resources at hand. While the labour force mobilised and the organisations instigated were largely transient, the facilities constructed and used during the conflict were not. They remain a national asset and a testament to the nation's reaction. That these facilities were often

constructed simply, ruggedly and in haste merely demonstrates the extent of emergency. They are culturally significant due to the large public association of these buildings with times of personal and national change and stress.

The buildings are historically significant because the forms and location of the structures depict the strategic reality facing Australia at the time of their construction. Prior to December 1941 development was urgent but considered, and timber construction was largely limited to the scale of building constructed before the war, that is, the timber hut building. These buildings were generally temporary structures for the training of troops. In early 1942, construction in timber was hectic and experimental, concentrating on south eastern Australia. Large complexes were constructed to provide stores, airfields and war industry plant. By 1943, experimentation lessened but the pace of building was maintained. Facilities were developed to bolster Australia's defence and to provide forward supply bases for battles fought in the Pacific Islands. By 1944, the nation served as a storage and staging base for advances throughout the Pacific, and the buildings of that time concentrated around the major posts of Brisbane, Sydney, and to a lesser extent Melbourne.

The buildings have a political and technical significance as they show how standing design preferences and practices were overthrown as part of the national reorganisation. Technologies that had previously had little impact in Australia were used extensively, while technologies introduced by the USA military were embraced. Unseasoned local hardwood, a material that had previously been regarded as unsuitable for large buildings achieved primacy. The technical achievements of this period for timber construction cannot be overstated. The longest span and most widespread timber structures in Australian history were constructed in this period. Almost every species of Australian timber was placed in extreme field test.

This significance has a further facet as the timber construction forms and technologies used throughout the war did not survive it. With demobilisation the pre-war preferences for steel construction re-emerged and timber construction for structures larger than houses did not recover its national popularity again until the 1960s.

Aesthetically, the truss and other construction forms produced throughout the war are unique. They advanced the aesthetic which had lingered as a legacy from the king and queen posts forms used in Australian buildings with the mortice and tenon construction of the later 1900s, and lack the nostalgia invoked in the 1960s and 1970s for the farmhouse. They express themselves in true and clean engineering layouts as was essential in a time of emergency.

These buildings, located throughout Australia, therefore have a significant heritage value as a group that should be preserved, recognising the influences that determined the form and construction distribution of the group" (Nolan 1995).

Previous Studies

Heritage Assessment – DNSDC site, Moorebank 2002

In 2002, Graham Brooks and Associates (Architects and Heritage Consultants), undertook a heritage assessment for the DNSDC site. This study focused on the built heritage of the site, but did not address its archaeological potential. It was concluded that the site was of significant heritage value as a group of WWII buildings that should be preserved, and recommended that:

- The preferred conservation option for the 18 WWII timber post and beam warehouses is their continued use.
- There should be a detailed feasibility study for the ongoing or adaptive re-use of the timber post and beam warehouse buildings. This should be done either by Defence or a new owner.
- Subject to the re-use study, an acceptable conservation option for the collection of World War
 II timber post and beam stores buildings could be the retention of one or more of the
 buildings as a representative example, for continued use by either the Department of Defence,
 or adaptive re-use by others, provided that a viable re-use of the buildings can be identified.
- Should the re-use of the World War II buildings not be considered prudent or feasible, then demolition of all of the buildings would be acceptable, given the preparation of a photographic recording and measured drawing survey of the site (Brooks and Associates 2002: 27-8).

The findings of the Brooks and Associates report (2002) need to be read in conjunction with the final divestment strategy for the DNSDC site.

Archaeological potential

The following assessment of archaeological potential within the DNSDC site is based on documentary research, an analysis of available plans and aerial photographs of the site, and a site inspection. Archaeological potential is the likelihood of intact archaeological deposits being present, and is

assessed through a consideration of the durability of the material that makes up these deposits and the subsequent ground disturbance that may have impacted on them.

Military sanitary depot

Before the construction of the 5th Aust. BOD in 1944, the only development to have occurred within the SIMTA site was a sanitary depot that was labelled near the eastern boundary of the site in a 1943 plan. The plan was created as part of a proposal for a new sanitary depot, to allow the closure of the existing depot before the construction of the 5th Aust. BOD. Documentation related to the original depot is very sparse and there was no available information about its date of construction, the specific nature of its operation, or the manner in which it was decommissioned. An aerial photograph from 1943 shows that the depot consisted of a partially cleared area, which encompassed a few irregular pits that appear to have been holding water at the time of the photograph. The photograph does not show any sign of formal infrastructure. It is assumed that the pits would have been filled when the depot ceased operation, however, it is not known what material was used as fill.

The area of the former sanitary depot was used as an open parking and storage space during WWII and was not built upon until the 1990s, when two large warehouse buildings and an associated bitumen car parking area were built on the site. It is likely that fill deposits within the former sanitary depot pits are present beneath the current buildings and bitumen surface, however, it is not known what these deposits may consist of. It is possible that the pits were simply filled with dirt or sand, but they may also have been filled with discarded structural material or other refuse such as metal, glass, and ceramic.

Any artefacts contained within the fill deposits would be out of context and, due to the lack of documentary evidence related to the depot, the provenance of this material would be unknown. Consequently, it would be difficult to formulate and answer pertinent research questions based on this material. It is not anticipated that potential archaeological deposits associated with the former sanitary depot would be of high research significance.

5th Aust. B.O.D.

Plans of the site dating from the 1950s to the 1980s show that numerous structures were previously situated throughout the site in locations that have undergone little or no subsequent development. These include structures of various sizes and types, and their locations are marked in Figure 30. It is possible that structural material related to these former buildings exists beneath the ground surface, and this material would be likely to consist of concrete slabs and/ or brick footings. The concrete slab of one former store building is still clearly visible and is used as an open-air storage area (Figure 30).

The historical plans also indicate the presence of water mains and sewerage pipelines throughout the site, as well as numerous latrines which may have contained refuse deposits.

Because the layout of buildings at the site has remained largely unchanged, the connecting roads are still located in the same places. It is possible that earlier road surfaces, which are likely to have been constructed of reinforced concrete, tar, or bitumen (Letter from Colonel Garnsey 5/4/44, NAA: SP459/1, 420/7/1153), are preserved beneath the current surfaces. The alignment of the roads and buildings also indicate the location of the old railway sidings, one of which is still clearly visible in the southern portion of the site.

Overall, there is a high potential for surviving archaeological remains associated with structures and features dating to WWII. Any archaeological remains dating to WWII have the potential to be of historical significance as features of a military depot that has been of local and national importance for almost 70 years. However, the archaeological resource at the site is limited in nature and is unlikely to be of high research significance.

Because the site was never occupied by the personnel who worked there, there is little potential for the type of accumulated refuse deposits often found at occupation sites, which can provide information regarding changing lifeways over time. It is therefore unlikely that the site would yield significant evidence related to the personal experiences of workers at the site over the years.

Archaeological remains of former structures have the potential to be of moderate research significance, as they may provide new evidence about the building types present throughout the site and the materials from which they were constructed.

The water mains and sewerage pipes known to exist within the site are of low research significance as the locations of these pipes are already known from documentary evidence and the pipes themselves would be unlikely to make a significant contribution to the existing knowledge of the site.

Figure 30: Locations of former buildings (purple) in undeveloped areas of the DNSDC site (based on a 1966 plan of the site). Inset shows surviving slab of former store building. (Base map – Google Earth)



Impact Assessment

Specific details regarding the potential impacts of the SIMTA proposal on the DNSDC site have not yet been finalised and so this assessment of impacts is preliminary. The SIMTA proposal is likely to involve the demolition or removal of some or all of the WWII buildings, the construction of new buildings, and landscape modification through the installation of new water, sewerage, trade waste, and power infrastructure. These changes would have a major impact on the heritage significance of the site.

The DNSDC site is of national significance as an extremely rare complex of WWII era military buildings that have remained in use by Defence until the present day. In particular, the 18 WWII period warehouses are rare and representative examples of the unique aesthetic and technical

characteristics of military buildings of this time, and their locations and orientations also indicate the alignments of former roads and rail sidings through the camp.

The SIMTA proposal is likely to involve the demolition and/or removal of some or all of the heritage buildings and will have a significant detrimental impact on the heritage value of the site. The absence of the buildings would impact the relationships that currently exist between the different buildings, the historical road and rail alignments, and the broader landscape; and the site would no longer retain any visible physical connection to its long military history.

If some of the buildings are relocated and preserved elsewhere (possibly for adaptive reuse), then these structures would retain some of their heritage value. However, the Burra Charter (Article 9.1-9.3) states that the physical location of a place is part of its significance and that relocation is generally unacceptable unless it is the sole means of ensuring the survival of a heritage item. When a building is moved it should be moved to an appropriate location and given an appropriate use, although it is important to note that the preservation of some buildings in other locations would not mitigate the detrimental impacts to the heritage value of the DNSDC site itself.

The construction of the proposed intermodal terminal is also expected to involve widespread subsurface impacts, which would affect known and potential archaeological resources.

Table 3 describes development and mitigation options for the SIMTA site. The measures of likelihood are classified as:

- High will probably occur in most circumstances.
- Moderate potential to occur at some time.
- Low- unlikely to occur in most circumstances.
- Negligible Negligible chance of occurrence.

These measures of likelihood are used in mitigation options tables for each section of the proposed development area.

Moorebank, Proposed Intermodal Terminal - Heritage Assessment

• • •

Table 3: Development and mitigations options table – SIMTA site.

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
Conservation of the	Low	The conservation of some or all buildings	Adaptive reuse of the buildings in	The adaptive reuse of some buildings <i>in</i>
WWII buildings in		in situ would preserve some of the	situ, wherever practicable.	<i>situ</i> would involve altering the buildings
situ		heritage value of the site. Values		in order to make them suitable for reuse
		associated with the setting and context of		in new ways. It would avoid total
		the buildings would be affected.		demolition or removal, and would
				preserve a connection to the military
				history of the site. Ideally, representative
				examples of both store building types
				(timber post and beam, and composite
				timber and steel) would be retained. The
				form of adaptive reuse would depend
				upon the uses to which the buildings
				would be put as part of the SIMTA
				development, but should have minimal
				impact on the heritage significance of the
				building and its setting.
			Preservation of buildings to allow	The preservation of all or some of the
			their conservation	WWII buildings would involve
				maintaining their physical fabric in its
				current state in order to conserve their
				heritage significance. Preservation of

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
				some of the buildings would facilitate the
				retention of built heritage values, but
				would affect values related to heritage
				context and may not allow alterations
				that could make future use of the
				buildings viable.
Demolition of the	Moderate	The demolition of all structures would	Architectural interpretation of the	Architectural interpretation would be a
WWII structures to		have a significant impact on the heritage	heritage value items within the	way of reflecting the site's military past
provide		values of the DNSDC site. If the current	design and construction of	and memorialising the former buildings
development areas		boundaries of the site were kept intact,	structural elements on the SIMTA	and layout at the site. Architectural
for intermodal		the site would retain some local historical	site (e.g. lighting or building	interpretation would be most effective if
warehousing		significance as an illustration of the	facades).	employed in conjunction with the
, and an and a starting		boundaries and alignments of the		relocation and adaptive reuse of some of
		original land grants and subdivisions in		the WWII buildings.
		the area. The major national significance		
		of the site lies in its role as a military	Archival and photographic	Archival and photographic recording of
		camp, particularly in the WWII buildings	recording of the site, with copies	the site (including the buildings
		(including their fabric, layout, and ability	of the records held at the site and	themselves, and the layout of the site)
		to demonstrate the original road and rail	at the new locations of any	should be undertaken before any changes
		alignments through the military camp)	buildings which have been	are made to the site. This mitigation
		and this would be diminished with the	relocated.	option would not actually conserve the
		demolition of the buildings.		heritage values of the site or buildings,
				nor provide an easily accessible/visible

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
				interpretation of them.
Relocation for	Moderate	While there would be no impacts to the	Architectural interpretation of the	Architectural interpretation would be a
adaptive reuse on		physical fabric of the structures, the	heritage value items within the	way of reflecting the site's military past
other		heritage values of the buildings and the	design and construction of	and memorialising the former buildings
Commonwealth		DNSDC site would be significantly	structural elements of the SIMTA	and layout at the site. Architectural
land of some or all		reduced by removing them from their	site.	interpretation would be most effective if
of the buildings		historical setting and impacting the		employed in conjunction with the
that are of heritage		relationships that currently exist between		relocation and adaptive reuse of some of
value		the different buildings, the historical		the WWII buildings.
		road and rail alignments, and the		
		broader landscape.	Archival and photographic	Archival and photographic recording of
			recording of the site, with copies	the site (including the buildings
		The relocation of the buildings would	of the records held at the site and	themselves, and the layout of the site)
		retain their aesthetic and representative	at the new locations of any	should be undertaken before any
		significance, and, while not ideal, is	buildings which have been	buildings are relocated. If copies of these
		preferable to demolition. It would be	relocated.	records were held at the site and at the
		appropriate for the buildings to continue		new locations of relocated buildings, they
		to be used by Defence on a different		would provide contextual information
		military site.		that would retain a connection with the
				past of the site and buildings. This
				mitigation option would not actually
				conserve the heritage values of the site or

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
				buildings, nor provide an easily
				accessible/visible interpretation of them.
Relocation for	Moderate	While there would be no impacts to the	Architectural interpretation of the	Architectural interpretation would be a
preservation on		physical fabric of the structures, the	heritage value items within the	way of reflecting the site's military past
other		heritage values of the buildings and the	design and construction of	and memorialising the former buildings
Commonwealth		DNSDC site would be significantly	structural elements of the SIMTA	and layout at the site. Architectural
land of some or all		reduced by removing them from their	site.	interpretation would be most effective if
of the buildings		historical setting and impacting the		employed in conjunction with the
that are of heritage		relationships that currently exist between		relocation and adaptive reuse of some of
value		the different buildings, the historical		the WWII buildings.
		road and rail alignments, and the		
		broader landscape.	Archival and photographic	Archival and photographic recording of
			recording of the site, with copies	the site (including the buildings
		The relocation of the buildings would	of the records held at the site and	themselves, and the layout of the site)
		retain their aesthetic and representative	at the new locations of any	should be undertaken before any
		significance, and, while not ideal, is	buildings which have been	buildings are relocated. If copies of these
		preferable to demolition. It would be	relocated	records were held at the site and at the
		appropriate for the buildings to continue		new locations of relocated buildings, they
		to be used by Defence on a different		would provide contextual information
		military site.		that would retain a connection with the
				past of the site and buildings. However,
				this mitigation option would not actually
				conserve the heritage values of the site or

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
				buildings, nor provide an easily
				accessible/visible interpretation of them.
				Other mitigation options would also need
				to be employed.
				The preservation of the buildings (as
				opposed to adaptive reuse) may allow
				more scope for heritage interpretation
				within the buildings – such as signage or
				posters featuring photographs, plans, and
				historical information related to the
				buildings and the DNSDC site.
A combination of	High	Impacts to the heritage values of the site	Conservation and adaptive reuse	Given the nature of the development, it is
Options A, B, C		are likely to be significant, but would	of some buildings in situ	unlikely that all of the WWII buildings
and/or D.		depend on the combination of options	Relocation and adaptive reuse of	would be retained. However, rather than
		chosen and other determining factors.	some buildings at other sites	demolition, a combination of mitigation
			Relocation and preservation of	options could provide an effective
			some buildings at other sites	compromise and allow some of the
			Archival and photographic	heritage significance of the site and
			recording.	buildings to be preserved.
			Interpretation of heritage values at	The heritage values of both the <i>in situ</i> and
			the SIMTA site and in the	relocated buildings should be interpreted

Development option	Likelihood of option	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy and its effect on heritage values
			relocated buildings	through the use of signage or posters
				featuring photographs, plans, and/or
				historical information related to the
				buildings and the DNSDC site. The
				heritage values of the SIMTA site should
				be interpreted through the design and
				construction of structural elements on the
				SIMTA site. This interpretation should
				include physical references to the former
				buildings and layout of the DNSDC site.
				Detailed archival and photographic
				recording should be undertaken before
				any changes are made to the site.
Demolition of	High	Impacts to the heritage significance of the	Archival recording of the	Detailed archival and photographic
structures built in		site as a whole would be low if only the	relationship between the 1990s	recording should be undertaken before
the 1990s.		1990s buildings were impacted.	buildings and other structures on	any changes are made to the site in order
			the DNSDC site.	collect information on heritage values
				before they are impacted.
Subsurface	High	The significance of the impacts will	Monitoring of works or	Impacts would be mitigated by
excavations within		depend on the nature of remains	archaeological test excavations	archaeological investigation as they
areas of		identified within the area of	conducted by an appropriately	would provide a means of recording and
archaeological		archaeological potential.	qualified heritage	interpreting information about the
potential			consultant/archaeologist.	heritage values of the site.

...

7.1.2 The School of Military Engineering

Assessment Criteria

The table below outlines a selective summary of the significance assessment detailed in the State Heritage Register listing for the School of Military Engineering. It provides a context for the recommendations for the section to the site to be impacted by the SIMTA proposal.

Criteria	Description	Significance Assessment
A – Historical	An item is important in the course or	The site demonstrates the military
Significance	pattern of the local area's cultural or	history of the area and particularly
	natural history.	relates to Australia's military
		engineering history.
B – Associative	An item has strong or special	The site is associated with the Royal
Significance	associations with the life or works of a	Australian Engineers and is a
	person, or group of persons, of	testimony to their contribution to
	importance in the local area's cultural or	Australia's war campaigns.
	natural history.	
C – Aesthetic	An item is important in demonstrating	The site reflects the changing
Significance	aesthetic characteristics and/or a high	technologies used by the Royal
	degree of creative or technical	Australian Engineers.
	achievement in the local area.	
E – Research Potential	An item has potential to yield	There is the potential to gain more
	information that will contribute to an	information on the site from further
	understanding of the local area's	architectural, archaeological and
	cultural or natural history.	documentary research.
F – Rarity	An item possesses uncommon, rare or	The site contains a number of war
	endangered aspects of the local area's	memorabilia that are rare heritage
	cultural or natural history.	items that reflect Australia's military
		past.

Statement of Significance

The following statement of significance is taken from the State Heritage Register listing for the site:

"The School of Military Engineering demonstrates the military history, particularly the engineering military history of the area. The site encompasses a complex of heritage items that are associated with the Royal Australian Engineers. It traces the evolution of the

technologies used by the RAE. Much of the war memorabilia on display is now rare. The site is representative of the RAE's pride in their military past and present. There is the potential to gain more information on the site from further architectural, archaeological and documentary research."

Archaeological Potential

Approximately four hectares at the southern end of the main SME complex, and around 16 hectares within the vegetated part of the complex (south of the DNSDC site), is included in the area of the proposed rail corridor that forms part the SIMTA proposal. The southern end of the main complex is part of the RAE golf course and has been highly disturbed through the creation of the golf course and the existing East Hills railway line that runs along its southern boundary.

The vegetated area is located between the DNSDC site and the East Hills railway line and consists of approximately 29 hectares of native scrub and swampy land. A railway connection, dating to the 1970s, runs through the middle of this area, between the DNSDC site and the East Hills railway line. The proposed rail corridor encompasses roughly half of this area, from Moorebank Avenue on the west to just beyond the existing railway connection on the east.

The proposed rail link itself would only include a narrow strip of land in the vegetated area (approximately 672 metres long and 20 metres wide), before running along the existing East Hills Railway corridor.

Historical documents related to the DNSDC and SME sites do not record the presence of any structures in vegetated area before or during WWII, and plans from the 1950s, 1960s, and 1970s show that there were no structures here during this period. The absence of development was probably due to the swampiness of the land. In c. 1970, a railway line was built through this area to link the DNSDC site with the East Hills Railway Line. The area has low archaeological potential.

Impact Assessment

The first stage of the SIMTA proposal will involve the construction of an additional rail line which would run through a small part of the SME complex: the vegetated area to the south of the DNSDC site. Impacts would be limited to a small portion of the SME site which does not include any features of heritage significance, and would not have any impact on the heritage significance of the item.

Aside from the proposed rail line, the only impacts would be to the views and setting of the main SME complex, while is located adjacent to the proposed SIMTA Moorebank Intermodal Terminal Facility. However, a separate proposal for the construction of the Moorebank Intermodal Terminal Company (MICL) Proposal (formerly known as the Moorebank Project Office (MPO) proposal) on the site of the main SME complex would involve major impacts across the complex, including the removal of most of the significant structures and features and the construction of new buildings. Therefore, any impacts to the views and setting of the SME resulting from the SIMTA proposal would have a negligible impact.

Development option	Likelihood	Significance	Possible mitigation	Summary of mitigation
		of impact	strategies	strategy /effect on heritage
Part of vegetated portion of	High	No impacts to	N/A	N/A
SME developed as part of		heritage		
the rail corridor.		significance.		

Table 4: Development and mitigations options table – SME.

7.2 Heritage listed items in the vicinity of the study area

7.2.1 Kitchener House

The Statement of Significance included in the State Heritage Inventory listing for Kitchener House states that:

"Kitchener House demonstrates the military history of the Liverpool area and the links between Australia and Britain at the turn of the 20th century. It is associated with Field Marshal Lord Kitchener and has been the residence of various senior officers and their families for over ninety years. The site as an example of a Federation style residence indicates a level of technical achievement and creativity in its design and construction. It is a fine representative example of a Federation style building set in its own gardens, it is aesthetically pleasing. Kitchener House is now one of the best preserved Federation Bungalows in the Liverpool area. There is the potential to gain more information on the site from further architectural, archaeological and documentary research."

The site is located approximately 650m north of the study area and is well-screened by vegetation, while a large modern building already blocks views to the south from the house. Longer views of the building from Moorebank Avenue are not available because of the buildings scale, its boundary treatment and ...

surrounding mature trees. Therefore, the SIMTA development is not likely to physically impact on the site or its setting and views. The demolition of the military structures at the SIMTA site would affect a site with which Kitchener House has a long-standing historic relationship, however the relationship between the DNSDC and Kitchener House has already been obscured through the construction of modern warehouse buildings in the area between them.

Figure 31: Location of Kitchener House - Kitchener House indicated by red arrow; boundary of study area marked by blue line (Source: http://imagery.maps.nsw.gov.au)



 Table 5: Development and mitigations options table – Kitchener House.

Development	Likelihood	Significance of	Possible mitigation	Summary of mitigation strategy
option		impact	strategies	/effect on heritage values
Development of	High	No impacts to	N/A	N/A
the SIMTA site to		heritage significance.		
the south of				
Kitchener House				

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7.2.2 The Holsworthy Group

The Statement of Significance included in the State Heritage Inventory listing states that:

"The Old Army/Internment Camp Group, Holsworthy, comprises surviving guard buildings and structures that were elements of an internment camp for Germans and other Europeans, from 1914-19. The internment of migrants in Australia followed Britain's foreign nationals policy during World War One and the Army/Internment Camp Group reflects Australia's strong defence links with Britain. The Old Army/Internment Camp Group demonstrates Australia's fear of European immigrants during World War One and concerns that Australia's war effort and national security were threatened by spies and invasion. The Old Army/Internment Camp Group also reflects the impact of World War One on Australia's home front when men were interned and their families left to fend for themselves. The Old Army/Internment Camp Group is associated with Federation and the acquisition of its remaining buildings, in 1913, was part of the Commonwealth Government's major program of defence construction for Australia. The Old Army/Internment Camp Group survives as evidence of the largest internment camp in Australia during World War One. The guard buildings and structures are rare in demonstrating the guards' section of a World War One internment camp in Australia and are also significant because they were constructed by the German and other European internees. The Old Army/Internment Camp Group has important associations for those who trained there during World War Two and who undertook National Service Training or permanent army service there more recently, during its use as military camp. It has similar associations for members of the World War One Light Horse Regiments and their families and descendants. It has strong but unpleasant associations for former internees. It has important associations for Australians as a reminder of a period of conflict and troubled national identity, involving a deep suspicion of non-British elements of the population."

The Holsworthy Group is located south-east of the study area, and is separated from it by an area of thick scrub. Therefore, the site and its views and setting will not be impacted.

...

Development option	Likelihood	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy /effect on heritage values
Development of the SIMTA site to north of the Holsworthy Group.	High	No impacts to heritage significance.	N/A	N/A

Table 6: Development and mitigations options table – Holsworthy Group.

7.2.3 Casula Powerhouse

The Powerhouse complex is significant as a site that demonstrates the development of Casula during a period when industrial expansion and residential growth necessitated an interim local power supply facility. The complex is a representative example of a power station built immediately after WWII and represents the end of the transition from steam to electricity as a major power source (State Heritage Inventory listing "Powerhouse Regional Arts Centre").

The Powerhouse is separated from the study area by the Georges River and the School of Military Engineering. Although it is located on a slope, the Powerhouse is well-screened by mature eucalyptus trees on the south and it is highly unlikely that the building would have views of the study area. Therefore the site will not be impacted by the SIMTA development.

Significance of Development Likelihood **Possible mitigation** Summary of mitigation strategy option impact strategies /effect on heritage values Outside the N/A No impacts to N/A N/A development area. heritage significance.

Table 7: Development and mitigations options table – Casula Powerhouse.

7.2.4 Railway Viaducts

Both sets of viaducts are significant as they demonstrate the history of the late 20th century development of a suburban rail network. They indicate a level of technical achievement in their design, construction and use that reflects the evolution of rail transport to and from Sydney.

As the viaducts are level with the railway lines, and are each located at least 800 metres from the study area, they will not be impacted by the SIMTA development.

Development option	Likelihood	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy /effect on heritage
Outside the development area.	N/A	No impacts to heritage significance.	N/A	N/A

Table 8: Development and mitigations options table – Railway Viaducts.

7.2.5 Glenfield Farm

Heritage significance

The Statement of Significance included in the State Heritage Inventory listing states that:

"Glenfield Farm homestead and its outbuildings are of exceptional historical significance as one of the few surviving rural farm complexes in New South Wales dating from the original land grant of 1810 and still capable of use for family living and limited farming activities.

Taken as a whole, the grounds of Glenfield Farm that remain have the capability to demonstrate both the core activities of the farm, and, to a modest degree, the planting tastes, garden layout, and functional requirements of successive occupants. Their approach was, for the most part, pragmatic and utilitarian - as is often the case with dairy farms - and cumulatively the grounds have high heritage significance (sic).

The homestead and garden complex can still be appreciated to some extent in their original relationship with the escarpment and Glenfield Creek valley, as can some of their traditional view prospects.

The place retains its traditional prominence along the ridge from the east, as a local landmark."

The Conservation Management Plan (CMP) developed for the site in 2002 emphasised the importance of the views to and from the east and recommended that they be retained intact (Mayne-Wilson & Associates 2002:116). The recommended management of the site, according to the State Heritage Inventory listing, includes ensuring appropriate controls on areas beyond estate to the east within the estate's visual catchment. In particular, the scale, height and treatment of the adjacent landfill area (State Heritage Inventory listing "Glenfield Farm").

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Assessment of heritage impact

The SIMTA proposal involves the construction of a rail link from the intermodal terminal, across the Georges River, and through the Glenfield Waste Disposal facility, which would then branch into two lines that would connect with the SSFL (Figure 32). Potential impacts to the Glenfield Farm SHR item include impacts to its views and setting, and a possible increase in noise from activity along the proposed new rail lines and the Main Southern Railway Line.

Figure 32: Glenfield Farm SHR curtilage (shaded green) in relation to SIMTA proposal.



The historic structures on the site are located around 220 metres from the south-western branch of the proposed new rail line that would connect with the SSFL. Although there is some screening vegetation located within the property, some view lines do exist from the house and barn over the study area, and these vistas were assessed to be significant in the 2002 CMP for the property (Mayne-Wilson & Associates

2002:116). These vistas have already been considerably compromised by the creation of the Glenfield Waste Disposal facility, the construction of the Main Southern Railway line and, particularly, the recent erection of a concrete flyover (known as the Glenfield flyover) to carry the SSFL over the Main Southern Railway line (Figures 33-35).

As the views from the property have already been compromised by railway development, it is considered unlikely that the additional rail links proposed as part the SIMTA proposal would further impact on the heritage significance of the item. There is a possibility that buildings constructed as part of the SIMTA proposal may be visible from the Glenfield Farm property, although such views are likely to be at least partially obscured by existing vegetation within the property and along the Georges River.

It is possible that the increased numbers of freight trains travelling along the SSFL and proposed connecting rail lines as a consequence of the intermodal terminal would result in an increase in noise levels. However, existing noise levels from the Main Southern Railway line have already somewhat compromised the historical character of the site, and it is unlikely that the increase in noise levels and train frequency due to the SIMTA proposal would make a significant difference. The Noise Impact Assessment would address possible impacts and mitigation measures.

Table 9 provides a summary SoHI for Glenfield Farm.

Development adjacent to a heritage item	Discussion
How is the impact of the new development on the heritage significance of the item or area to be minimised?	The SIMTA proposal would not have a significant negative impact on the current heritage value of Glenfield Farm, as views from the site toward the study area have already been compromised by existing development.
Why is the new development required to be adjacent to the heritage item?	The SIMTA proposal is required to be adjacent to the heritage item because it involves the construction of new rail lines that will connect with the SSFL near the south-eastern boundary of the item.
How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects?	The construction of two new rail lines as part of the SIMTA proposal is likely to have some negative impact on the views from the heritage item. However, these views have already been significantly compromised by existing development and it is unlikely that the additional rail links would

Table 9: Glenfield Farm - SoHI

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Development adjacent to a heritage item	Discussion
	substantially exacerbate the existing situation.
	There is a possibility that buildings constructed as part of the SIMTA proposal may be visible from the
	Glenfield Farm property, although such views are
	likely to be at least partially obscured by existing
	vegetation within the property and along the Georges
	River.
Is the new development sympathetic to the heritage	No.
item? In what way?	
Will the additions visually dominate the heritage	The proposed additional railway lines would not
item? How has this been minimised?	visually dominate the heritage item.
Will the public, and users of the item, still be able to	At present, the most publically accessible views of the
view and appreciate its significance?	item are from Leacocks Lane, to the north-west of the
	house. The public will continue to be able to view and
	appreciate the significance of the site from this
	location.

Potential cumulative impacts related to the MICL Moorebank Intermodal Terminal Project

There is some potential for cumulative impacts to views from Glenfield Farm associated with the MICL Moorebank Intermodal Terminal Project on the SME site. The MICL Moorebank Intermodal Terminal proposal would retain a vegetation buffer between the site and the Georges River, which would screen views from Glenfield Farm. If any buildings on the SME site were visible from Glenfield Farm, views of them would be from a distance and would be at least partially screened by vegetation. Therefore, the proposal would have only minimal (if any) impact on views from Glenfield Farm.



Figure 33: View from Glenfield Farm barn toward study area.

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Figure 34: View toward study area from the rear of Glenfield Farm house.



Figure 35: View toward study area from upstairs window of Glenfield farm house.



Potential mitigation measures

Measures employed as part of the SSFL project to mitigate the visual impact of the Glenfield flyover may also reduce the potential impacts of the SIMTA proposal. The visual assessment report for the SSFL included general design strategies such as the use of screening vegetation and terracing or earth mounding to soften the impact of the flyover (Caldis Cook Group 2006: 25).

The SIMTA proposal would include the establishment of a landscaping 'buffer zone' along Moorebank Avenue, which would include screening vegetation with dense tree canopy cover. This would help to mitigate potential impacts on views from Glenfield Farm resulting from new buildings within the SIMTA site. The Urban Design and Landscape Report for the SIMTA proposal identified that a landscaping

'buffer zone' will be established along Moorebank Avenue, between the intermodal terminal and the SIMTA site boundary (Reid Campbell 2012). In this zone, strong shielding vegetation will be provided to either side of a bio-retention swale and will include a combination of dense tree canopy cover as well as lower screen planting. A discussion with the Heritage Branch (*pers comm* 28/5/13) confirmed that in accordance with the recommendations of this report, vegetation screening within the SIMTA site and not within the Glenfield curtilage would be preferable.

Development	Likelihood	Significance of	Possible mitigation	Summary of mitigation strategy
option	Likeimoou	impact	strategies	/effect on heritage values
.1		I		
Two new rail	High	Minor impact on	Screening	Views have already been
links built		views from Glenfield	vegetation and	impacted by existing
adjacent to		Farm, however, these	terracing or earth	development with only minor
Glenfield Farm.		views have already	mounding	cumulative impacts expected.
		been compromised by	completed as part of	Mitigation measures employed
		existing development.	the SSFL project	as part of the SSFL project
			(not by SIMTA).	would mitigate cumulative
				impacts associated with the
				SIMTA project.
New buildings	High	Minor impact on	Screening	Screening vegetation along
within the		views from Glenfield	vegetation would	Moorebank Avenue would
SIMTA site		Farm.	be planted along	mitigate the potential impact of
			Moorebank Avenue	the SIMTA proposal on views
			as part of the	from Glenfield Farm.
			SIMTA proposal.	
			This would screen	
			views from	
			Glenfield Farm	
			toward the new	
			buildings.	

Table 10: Development and mitigations options table – Glenfield Farm

8.0 Discussion

The findings of this assessment of the SIMTA proposal have indicated that there are no heritage constraints on proposed development within the proposed rail corridor area, or the land within the Glenfield waste depot. This area is unlikely to contain items of non-Indigenous heritage significance due to either an absence of historical development, or high levels of disturbance.

The SIMTA proposal would not have any impact on the heritage significance of the following heritage items in the vicinity:

- Kitchener House
- The Holsworthy Group
- Casula Powerhouse
- Railway viaducts on the Southern Railway Line

DNSDC site

The SIMTA proposal would have a significant impact on the heritage significance of the DNSDC site, which is currently leased by the Australian Defence Force and is therefore listed on the CHL and protected by the EPBC Act 1999. However, the SIMTA site will only be located within a "Commonwealth Area" for as long as Defence leases the site, and once that lease expires or is relinquished, the SIMTA site would no longer be within a "Commonwealth Area" and would need to be removed from the CHL (s341L EPBC Act). It is possible that the site may then be considered for listing on another heritage register, such as the National Heritage List (NHL) or State Heritage Register (SHR). If either of these listings were to occur prior to the granting of development approval for the SIMTA site, SIMTA would be required to fulfil additional obligations under the relevant heritage legislation.

The ongoing heritage protection measures that will exist once Defence vacates the SIMTA site will entirely depend on:

- The terms of any contractual obligations between SIMTA and Defence that operate at that point in time; and,
- Whether the SIMTA site is subsequently listed on the NHL or SHR and thereby becomes subject to the regulatory requirements of the relevant legislation. Different legislative requirements will apply to the SIMTA site, depending on when development approval is sought and which form of

artefact

statutory protection the site is under at that time. However, regardless of the statutory context, the heritage values of the DNSDC site are known to be high and it is preferable that significant elements of the site are conserved where possible, whether this is through the re-use of the warehouses or the conservation of the most representative samples of the structures.

The SIMTA proposal would have a significant impact on the DNSDC site and its heritage values, although a combination of mitigation measures would minimise this impact where practicable. The SIMTA proposal is likely to involve the demolition and/or removal of all or some of the heritage buildings on the DNSDC site, the construction of new buildings, and landscape modification through the installation of new water, sewerage, trade waste, and power infrastructure. These changes would impact on the heritage significance of the WWII buildings located at the DSNDC site, although it is likely that these impacts would be mitigated by a combination of conservation, adaptive reuse, and relocation of some of the WWII structures.

If buildings are to be demolished, re-use of heritage fabric within an interpretive context would be appropriate and archival recording would be necessary. While some recording was completed in 2001 (Brooks & Associates 2002:28), updates to this record would be required. The historical landscape context of the site should also be taken into account. Elements such as the alignment of the roads and rail line may be preserved, or embedded through conservation or interpretation in the new development design (Brooks & Associates 2002:28).

It is recommended that a mitigation strategy should be developed for the DNSDC site as a whole, once the nature of the SIMTA proposal has been more adequately defined. This strategy may be based on the potential mitigation options outlined in Table 3 and, at a minimum, would involve archival and photographic recording of the entire DNSDC site. At the Project Applications stage, detailed Statements of Heritage Impact should be produced for each stage of the SIMTA proposal, based on the information provided in this report.

It is possible that archaeological remains of former structures exist throughout the site, and these have the potential to be of moderate research significance. Recommendations for mitigation and management measures for areas of archaeological potential would be made within the SoHIs for each stage of the proposal.

Glenfield Farm

The SIMTA proposal involves the construction of an additional rail line from the intermodal terminal which would run through the Glenfield Waste Disposal facility before branching into two lines that would connect with the SSFL close to the curtilage of Glenfield Farm. Glenfield Farm overlooks this area, however, because the views from the property have already been compromised by railway development and the creation of the waste disposal facility, it is considered unlikely that the additional proposed rail links would have further impacts on the heritage significance of the item.

It is possible that the SIMTA proposal could result in an increase in noise levels along the rail line near Glenfield Farm. Possible impacts from noise and associated mitigation measures would be addressed in the Noise Impact Assessment for this project.

Buildings constructed as part of the SIMTA proposal may be visible from the Glenfield Farm property, although such views are likely to be at least partially obscured by existing vegetation within the property and along the Georges River.

Measures employed as part of the SSFL project to mitigate the visual impact of the Glenfield flyover may also reduce the potential impacts of the SIMTA proposal. The visual assessment report for the SSFL included general design strategies such as the use of screening vegetation and terracing or earth mounding to soften the impact of the flyover (Caldis Cook Group 2006: 25).

The SIMTA proposal would include the establishment of a landscaping 'buffer zone' along Moorebank Avenue, which would include screening vegetation with dense tree canopy cover. This would help to mitigate potential impacts on views from Glenfield Farm resulting from new buildings within the SIMTA site.

Area	Within the study area?	Listing	Actions Required
School of Military Engineering	Yes	Liverpool LEP	None
Glenfield Waste Depot	Yes	None	None
DNSDC site	Yes	Commonwealth Heritage List	Further detailed Statement of Heritage Impacts at Project Application stage for different stages of the SIMTA proposal. Further archaeological

Table 11: Summary of Heritage Issues and Actions

Area	Within the study area?	Listing	Actions Required
			assessment/investigation for areas of archaeological potential that would be impacted. Develop overall mitigation and management strategy.
Glenfield Farm	No	State Heritage Register and Liverpool LEP	Submit the SoHI included in this report to the NSW Minister for Planning and Infrastructure as part of staged planning applications at State level. Screening vegetation would be planted along Moorebank Avenue.

...

9.0 Recommendations

On the basis of background research and a site inspection and adhering to all statutory obligations, it is recommended that;

- There are no non-Indigenous heritage constraints for the land within the proposed rail corridor, or the land within the Glenfield waste depot. The majority of these areas are heavily disturbed and do not contain known items of non-Indigenous heritage significance.
- There are no non-Indigenous heritage constraints on the proposal with regard to the heritage listed items of Kitchener House, the Holsworthy Group, Casula Powerhouse, and railway viaducts on the Southern Railway Line.
- There are no constraints on the SIMTA proposal with regard to Glenfield Farm. The SoHI for the item included in this report would need to be submitted to the NSW Minister for Planning and Infrastructure as part of staged planning applications at State level.
- The DNSDC site is highly significant and embodies important national heritage values, as
 indicated by its inclusion on the Commonwealth Heritage List. It is necessary to conserve the
 site's heritage values where possible. The site will no longer be protected under the EPBC Act
 once Defence's lease of the SIMTA site ends. It is therefore recommended that discussions are
 commenced with the appropriate heritage bodies regarding the listing of the site on the NHL or
 the SHR.
- The actions necessary before heritage impacts can occur at the SIMTA site will depend on the statutory context of the site at the time that approval is sought for each stage of the SIMTA proposal. A SoHI should be produced for each stage of the Project Application process, and each SoHI should address the legal status of the site and provide advice on required actions depending on whether the site is listed on the CHL, NHL, SHR, or unlisted at the time that approval is sought.
- It is recommended that an overall mitigation strategy should be developed for the DNSDC site, which may be based on Table 3 of this report.
- Further archaeological assessment and possible investigation or monitoring will be required in areas designated as having archaeological potential, where they would be impacted by the intermodal terminal development. The SoHIs for each stage of the Project Application process

...

should address the necessary actions regarding areas of archaeological potential within the development area for each stage of the SIMTA proposal.

- If any archaeological deposit or item of heritage significance is located within the study area and is at risk of being impacted, the NSW Heritage Council should be notified and a heritage consultant/archaeologist should be engaged to assess the item to determine its heritage significance.
- As this project will be assessed under transitional arrangements for Part 3A of the *Environmental Planning and Assessment Act 1979,* permits and consents will not be required from the NSW Heritage Branch as a delegate of the NSW Heritage Council to impact on heritage items within sections of the study area not owned or leased by the Commonwealth.
- As part of the Project Applications stage a Statement of Commitments relating to non-Indigenous Heritage should be produced for the study area.

10.0 References

- Australian Heritage Database (http://www.environment.gov.au/cgi-bin/ahdb/search.pl) entry: "Defence National Storage and Distribution Centre"
- Brooks and Associates (2002) Heritage Assessment: Defence National Storage Distribution Centre (DNSDC) Moorebank Defence Site, Moorebank

Godden Mackay Logan (1995) First Field Hospital Site, Holsworthy: Archaeological Assessment

- Ludlow, C. & Snowden, C. (1991) History and Significance of the site of the Remount Depot, Holsworthy: Report to the Defence Housing Authority
- Mayne-Wilson & Associates (2002) Conservation Management Plan for Glenfield Farm, 88 Leacock Lane, Casula

Nolan, G. (1995) Timber Buildings 1939 to 1945: Report to the Department of Defence

State Heritage Inventory Listings (at <http://www.heritage.nsw.gov.au/07_subnav_09.htm>):

- "Glenfield Farm"
- "Kitchener House"
- "Powerhouse Regional Arts Centre"
- "Holsworthy Group"
- Urbis (2010) Request for Clause 6 Declaration and Concept Plan Authorisation and Preliminary Environmental Assessment (on behalf of SIMTA): Part 3A Concept Plan Application

Appendix 1

The Defence Disposal Checklist (Defence Heritage Toolkit, Guide 5) (from <http://www.defence.gov.au/environment/heritagetoolkit.pdf>)

Steps	Finding the answer
 Identify the values of your site 	Firstly you will need to identify the heritage values of the site – check DEMS, ask the local environmental officer or look it up on the Australian heritage database http://www.environment.gov.au/cgi-bin/ahdb/search.pl
	 Is the place listed on the Commonwealth Heritage List or the National Heritage List? If so it will need to be managed under special provisions set out by the EPBC Act. These are to ensure the values of the site will be protected during the sale process and afterwards.
	 Is the place listed on the Register of the National Estate? While the CHL and NHL are the primary protected listings, RNE listed sites still need to be managed through the disposal process under the EPBC Act.
	 If the place is not on the CHL or NHL, it may still have state or local significance, and so is still covered by the EPBC Act, and will need to have the values protected.
	 In some cases there is no information on heritage values for a site. This does not always mean there is none. It doesn't have to be listed to have values. Check with the relevant regional environmental officer to see whether further investigation may be required. If so, you may need to commission a heritage assessment via the Defence Heritage Panel. For information on this see Guide 6 of the Toolkit "Defence Guide to Heritage Management Planning".
	Remember: Heritage values can relate to:
	 European built heritage (including archaeological potential and intangible values such as associations to a person or group),
	 Indigenous cultural heritage (including archaeological potential and intangible values associated with mythical or ceremonial sites),
	 Natural heritage (including aesthetics and view points).

DEFENCE DISPOSAL CHECKLIST

Steps	Finding the answer		
 Identify the best way to protect values at your site 	Depending on your site's values and level of listing (if it is listed, unlisted sites can still have values) there are different levels of protection that can be applied. There are also different approaches that can be applied depending on the values (ie whether they are tangible or intangible).		
	 For sites with little heritage values that don't need a great deal of protection (ie not heritage listed, and any values not under threat), you can use an Environmental Clearance Certificate (ECC) and document what you have done to identify values, and any protection regime. See Fact Sheet 1 of the Defence Heritage Toolkit for further information about ECCs. 		
	These measures can outlined in the Conservation Management Plan or by DHBC if the nature of the site is such that no formal due diligence has been undertaken,		
	 If there are more values or issues to consider, developing a disposal conservation management strategy (DCMS) to determine the best method of protection during and after sale is the best way to ensure you afford the site the right level of protection. 		
	A DCMS can be as little as a paragraph or much more, depending on the requirements of each site. These can be done in house with the help of Defence Heritage, or the relevant Environmental officer, or by a member of the Defence Heritage Panel.		
	The management of tangible values might include protection of the building, site, curtilage, precinct or landscaping aspects that represent the values of the site.		
	A DCMS might manage intangible values such as the recognition of mythical places or the documentation of associative values if the values are not represented in a physical site or feature.		
	A DCMS might also include measures to manage natural heritage or aesthetic views by providing recommendations for the protection of nature reserve areas or viewsheds into the site.		

DEFENCE DISPOSAL CHECKLIST

Steps	Finding the answer		
 Identify the best way to protect values at your site (continued) 	For sites with a greater requirement for protection of its heritage values, methods of protection in the DCMS may include:		
	 advising prospective purchasers of heritage status and providing copies of relevant heritage management plans to assist them with management of the site; 		
	 ensuring the contract includes a covenant to protect the CHL values of the place, as long as it can be enforced and will offer certainty that the heritage values will be maintained appropriately; 		
	 entering into an conservation agreement with prospective purchasers for the protection and conservation of the place 		
	 entering the place in the appropriate state, territory or local government heritage register; 		
	 agreement with the purchaser to enter the place in the appropriate state, territory or local government heritage register should be sought in the event that the property is later sold into private ownership; 		
	 consideration of the possibility of a sale or lease to another Commonwealth agency as this allows the place to remain under the protection of Commonwealth heritage legislation. Disposal to a state or local government authority is also potentially beneficial in continuing 'public' use of the place; 		
	 for some sites, public consultation well before the sale, and in some cases a communication strategy for the sale; 		
	 for sites that are on the CHL, the requirement to write to the Minister for the Eavironment and Water Resources to inform of the sale or lease at least 40 days before executing the contract to inform him about the sale or lease, and how the values of the place will be protected. The Minister can respond with other suggestions on how to protect the place that you may need to pursue also. 		
	Remember: The management and protection to the appropriate State and local level will be the responsibility of the purchaser as they plan and develop the site under the appropriate development application processes that apply to them.		

DEFENCE DISPOSAL CHECKLIST

Steps	Finding the answer		
 Identify the best way to protect values at your site (continued) 	However, the EPBC Act does require that Commonwealth agencies avoid adverse and significant impacts to Commonwealth Heritage listed properties, and avoid significant impacts on the environment (of which heritage is a part) for unlisted sites that display heritage values.		
	It is a requirement that Defence identify the values and take appropriate steps to satisfy themselves that there will be either:		
	 no impact (because there are no values to be managed or protected), 		
	 no impact because measures have been included via purchaser agreement or via covenant in the documentation that would be submitted to the Minister, or via listing at a State or territory level to ensure that the purchaser will undertake appropriate steps as part of their own development application process. 		
	Remember: Disposal of a site is considered an "action" under the EPBC Act. If the Minister responds with further suggestions to ensure the appropriate protection of the heritage values, these need to be considered either as activities to be undertaken prior to sale, or as part of your sale agreement/disclosure documentation.		
	If the site is not CHL listed and so the Minister is not to be alerted in writing 40 days prior to sale, the potential referral triggers still need to be considered as part of the assessment process. The success of a referral would depend on the appropriateness of the management measures commensurate to the level of significance of the site and the potential impact. The DCMS will support your approach in managing the potential impacts to well below the threshold of significance. The means by which to reduce the level of significance of the impact may be any of those items noted above for instance.		
	Remember: Appropriate investigation and disclosure to a purchaser ensures that financial risk via the sale or later claims are avoided. It also helps to support the avoidance of impacts from a heritage perspective, which helps to fulfil Defence's obligations under the EPBC Act.		

DEFENCE DISPOSAL CHECKLIST		
Steps	Finding the answer	
3. Develop your conservation management strategy	 If you need to develop a comprehensive disposal conservation management strategy for your site you will need to develop a Statement of Requirement, whenever possible for the Defence Heritage Panel, which should include: 1. Your covering letter to as per standard template provided in the Infrastructure Manual. 2. Project Outline 	
	3. Scope of Services	