

Non-Indigenous Heritage



SIMTA

SYDNEY INTERMODAL TERMINAL ALLIANCE

Part 3A Concept Plan Application

Executive Summary

Artefact Heritage Services, on behalf of the Hyder Consulting and the Sydney Intermodal Terminal Alliance (SIMTA), 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 SIMTA proposal will comprise a rail link, an intermodal terminal, warehouse and distribution facilities, and a freight village. The project will be undertaken in stages and it is intended that an overall non-Indigenous heritage assessment, for the entire site, be undertaken for the purpose of applying for Concept Plan approval under Part 3A of the *Environmental Planning and Assessment Act 1979*. Development design is still to be determined, as it will be staged to respond to demand, therefore Project Applications will be progressively made for future buildings.

The assessed study area encompasses the Defence National Storage and Distribution Centre - DNSDC (excluding a car park to the north of the main DNSDC site) which will be referred to as the SIMTA site, and several portions of land to the south of the SIMTA site which will be referred to as the rail corridor. The lands within the rail corridor include a section of the School of Military Engineering, and the northern section of the Glenfield waste facility.

The DNSDC site, encompassing the SIMTA site is currently listed on the Commonwealth Heritage List and is protected under the *Environment Protection and Biodiversity Conservation Act 1999*, while the School of Military Engineering 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*.

The SIMTA site includes a number of intact store buildings dating to WWII and is significant as a rare surviving example of a WWII military complex. As Commonwealth Heritage listings only apply to land owned or leased by the Commonwealth, the divestment process will include consultation on the management and heritage status of site. Consultation between Defence, SIMTA, and the Australian Heritage Council regarding the heritage values of the SIMTA site should be initiated well before the current Defence lease ends.

The intermodal terminal development will have a significant impact on the DNSDC site and its heritage values, although a combination of mitigation measures will minimise this impact where practicable. The proposed development 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 DSND C 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.

The actions required before heritage impacts can occur will therefore vary depending on the outcomes of the divestment consultation. At the Project Application stage, once divestment negotiations have been completed and statutory obligations are known, a Statement of Heritage Impacts should be produced for the SIMTA site.

As outlined in the current Part 3A Concept Plan Application, the SIMTA project will only impact upon the southernmost edge of the School of Military Engineering. This portion of the site overlooks the East Hills railway line and is part of the Royal Australian Engineers Golf Course. It has undergone significant landscape modification and it is unlikely that the SIMTA project would affect any heritage items or archaeological deposits in this area. It is recommended there are no non-Indigenous heritage constraints on development in this area.

As the section of the rail corridor within the Glenfield waste depot does not contain heritage listed items and has been heavily disturbed, the low archaeological potential of the site indicates that there would be no heritage constraints on development in this area.

As part of the Statement of Commitments, a Statement of Heritage Impacts is recommended for Glenfield Farm, a state significant site which is located adjacent to the proposed rail link. Glenfield Farm is listed on the State Heritage Register and protected by the *Heritage Act 1977*.

The Liverpool DCP contains guidelines relating to Kitchener House (which stands to the north of the study area) and its curtilage, including the screening of the house from visual impacts. These guidelines should be taken into account in the Statement of Commitments for the project.

The area where the WWII complex (administration block, garage, POL store, AWAS rest room, and men's latrines) once stood, in the eastern section of the SIMTA site, is likely to contain intact archaeological deposits - as it has not been built on since the demolition of the above structures. It is recommended that further archaeological investigations should be carried out if this area is to be impacted.



As part of the Project Applications stage a Statement of Commitments relating to non-Indigenous Heritage should be produced for the study area once development impacts and the results of the divestment negotiations are known.

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1.0 Introduction and Background

Artefact Heritage Services was commissioned by Hyder Consulting on behalf of the Sydney Intermodal Terminal Alliance (SIMTA), a consortium of Stockland, Qube Logistics and QR National, to conduct an assessment of non-Indigenous heritage prior to the construction of an intermodal terminal at Moorebank Avenue, Moorebank.

The aim of this study is to assess the impacts of the SIMTA proposal on items of heritage significance, outline potential opportunities and constraints regarding non-Indigenous heritage, and recommend if further action is required to fulfil statutory heritage obligations.

The project will be undertaken in stages and an overall non-Indigenous heritage assessment, for the entire site, has been undertaken for the purpose of applying for Concept Plan approval under Part 3A of 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:

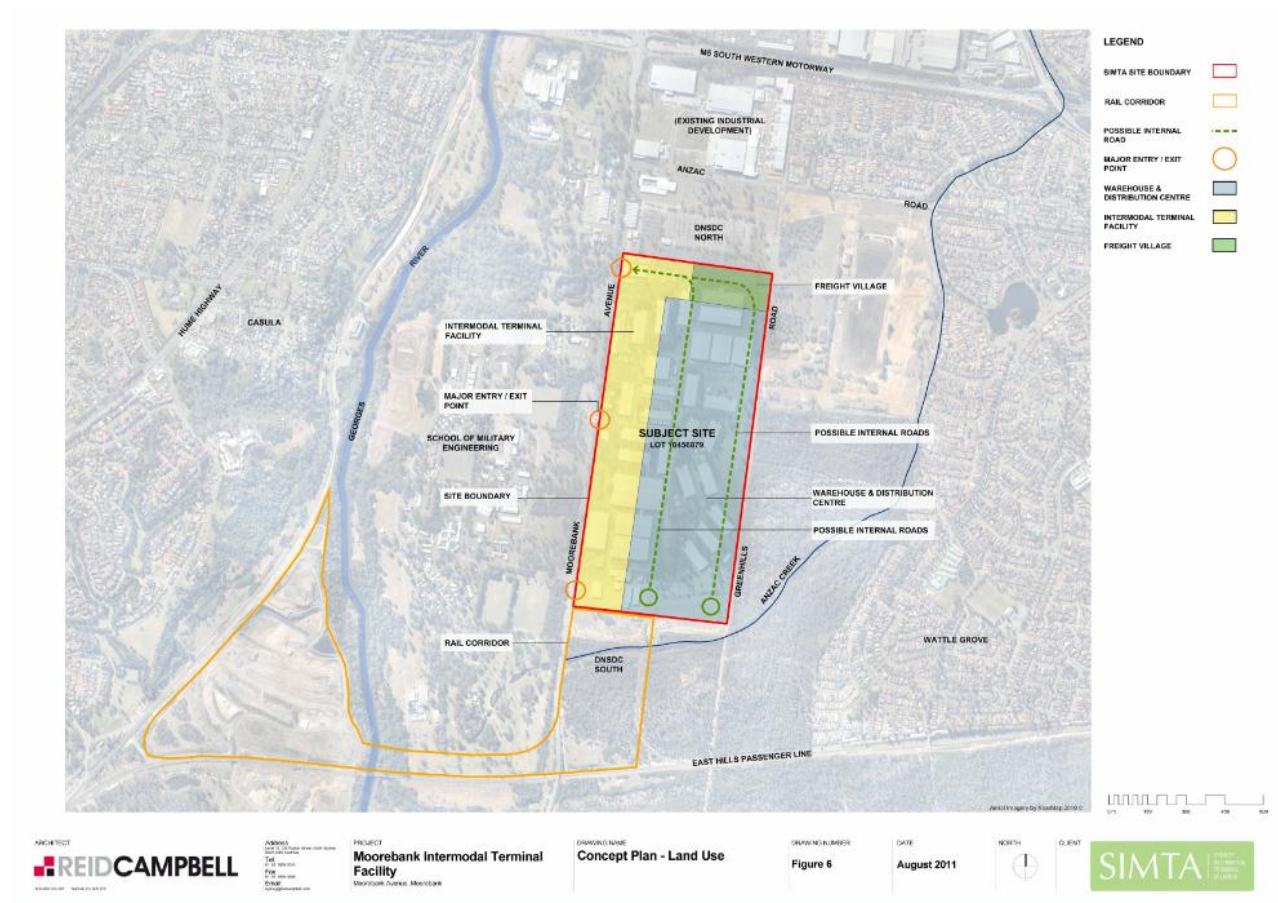
Table 1: Fulfilment of DGRs

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

1.1 The Proposed Development

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.

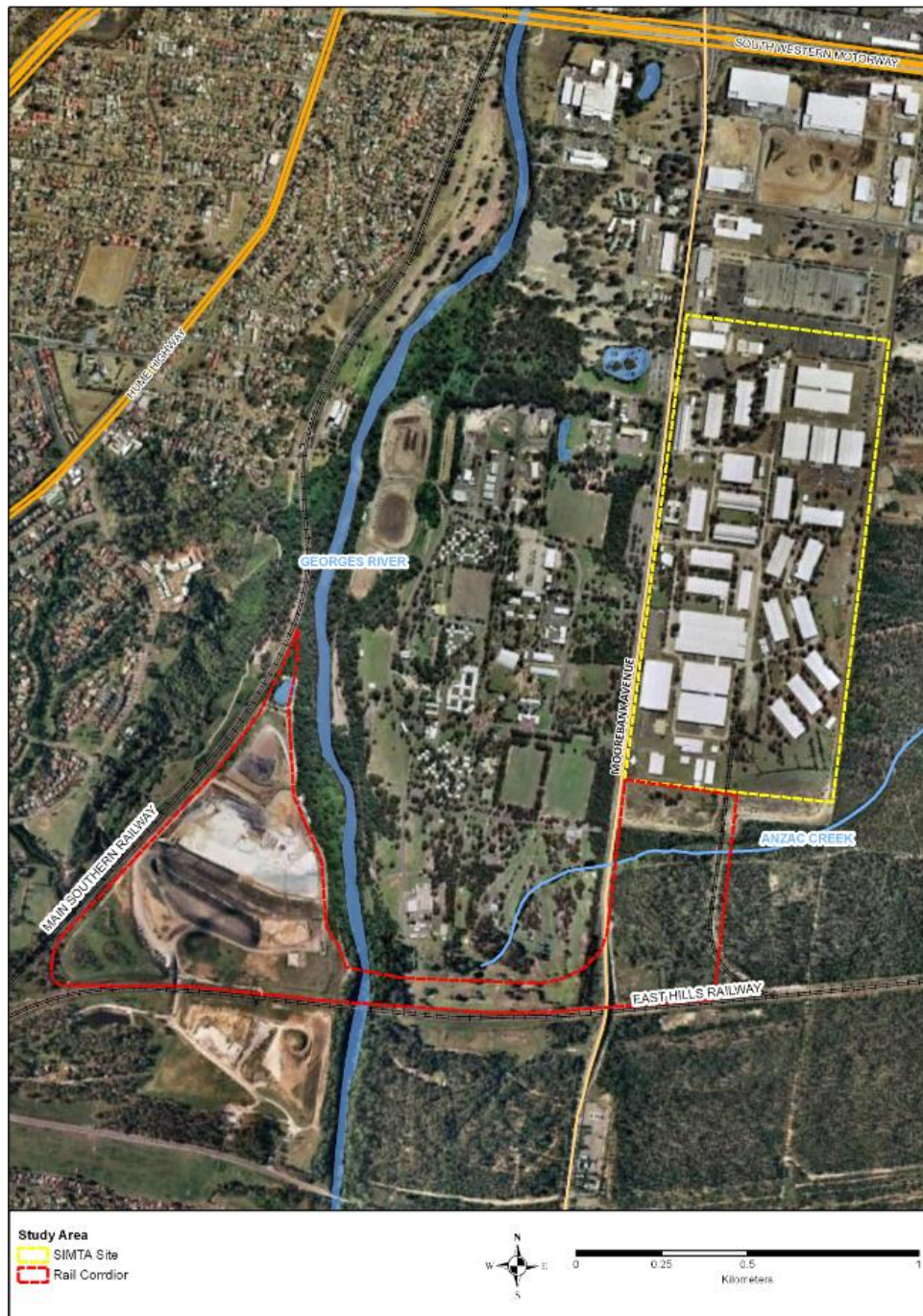
Figure 1: Map of proposed land use



1.2 The Study Area

The study area is located at Moorebank, on either side of the Georges River in the Liverpool local government area (LGA). It is 27 kilometres west of the Sydney CBD, 16 kilometres south of the Parramatta CBD, five kilometres east of the M5/M7 Interchange, two kilometres from the main north-south rail line and future Southern Sydney Freight Line, and 0.6 kilometres from the M5 motorway.

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



The SIMTA site, approximately 83 hectares in area, is currently operating as a Defence National Storage and Distribution Centre (DNSDC). The DNSDC also includes an area to the north of the SIMTA site (see Figure 2) which is not within the study area and will not be part of the intermodal terminal project. 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 corridor are referred to as the rail corridor. The proposed rail corridor covers approximately 65 hectares and adjoins the Main Southern Railway to the north. Existing land use includes vacant land, golf course, extractive industries, and a waste disposal depot. Native vegetation includes woodland, forest and wetland communities in varying condition. Georges River and Anzac Creek intersect the proposed rail corridor. The supplementary lands area to the south of the SIMTA site, to the north of the existing East Hills Rail Line are part of Lot 3001 DP1125930 and Lot 1 DP1125930. To the west of the Georges River, the Glenfield Waste Disposal site comprises several lots that are currently all used for the purposes of the waste facility.

1.3 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 <http://trove.nla.gov.au/ndp/del/search?adv=y>).
- Department of Lands.
 - Parish Map Preservation Project.
 - Aerial Photographs.
 - Spatial Information Exchange.
 - Old Title Records.



- National Archives of Australia.
- Australian War Memorial digital collection (<http://www.awm.gov.au/search/collections/>).

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. Due to security restrictions, not all of the SIMTA site could be accessed and it was not possible to examine the southern portion of the site or the area of scrub beyond.

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 depot 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 Register

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. 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.

The DNSDC site is included on the Commonwealth Heritage List and is protected by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). However, the EPBC Act 1999 only provides statutory protection to items that are owned or leased by the Commonwealth. Under the EPBC Act 1999, Australian Government agencies that own or lease heritage places are required to:

- Develop heritage strategies.
- Produce a register of the heritage places under their control.
- Develop a management plan to manage these places consistent with the Commonwealth Heritage management principles prescribed in regulations to the Act. All sites on the Commonwealth Heritage List must have a Heritage Management Plan and be managed in accordance with this plan.
- Facilitate the ongoing protection of the Commonwealth heritage values of the places when it is sold or leased.
- Ask the Minister for a decision about taking an action, if the action has, or will have, or is likely to have, a significant impact on a Commonwealth heritage place.

Because the site is currently leased by the Australian Defence Force (Defence), a federal government authority, it remains under statutory protection, however, before this lease expires it will be necessary for Defence to enter into consultation with SIMTA and the Australian Heritage Council regarding future management and conservation plans or policies. The outcome of this consultation could include

contractual obligations for the purchaser, or listing on the appropriate State or local government heritage register. (More information on the disposal of Commonwealth heritage properties owned or leased by Defence is provided in Appendix 1). Different heritage management 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 (i.e. whether it is listed on the Commonwealth Heritage List, the State Heritage Register, or the Liverpool LEP).

Commonwealth Heritage List:

If approval is sought while the site is still leased by Defence, the approvals process will need to meet the requirements of the EPBC Act 1999. Because the SIMTA development is an action that is likely to have a significant impact on a Commonwealth heritage site, it would be necessary to refer the action to the Australian Government Minister for Sustainability, Environment, Water, Population and Communities (the Minister). The Minister will then decide whether the action requires approval. If approval is required, an environmental assessment of the action must be carried out and an assessment report prepared. After considering the environmental assessment report, the Minister decides whether to approve the action, and what conditions (if any) to impose. (For further information, see <http://www.environment.gov.au/epbc/publications/pubs/commonwealth-guidelines.pdf>)

The State Heritage Register:

If consultation between Defence, SIMTA and the Australian Heritage Council results in the site being listed on the State Heritage Register, and approval is sought after the cessation of the Defence lease, the site will be protected under the *Heritage Act* 1977. When works are proposed within a State Heritage Register listed site, application for consent is required under Section 60 of the Heritage Act unless the project is being assessed as a state significant site under the EP& A Act in which case permits are not required.

The Liverpool LEP

If consultation between Defence, SIMTA and the Australian Heritage Council result in the site being listed on the Liverpool LEP, a Statement of Heritage Impacts will need to be prepared in the context of the Liverpool LEP and the DCP. Both these documents discuss the importance of conserving heritage significance. As the SIMTA project is will be assessed under Part 3A transitional arrangements, the Minister is not obliged to consider LEP, or DCP requirements.

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)

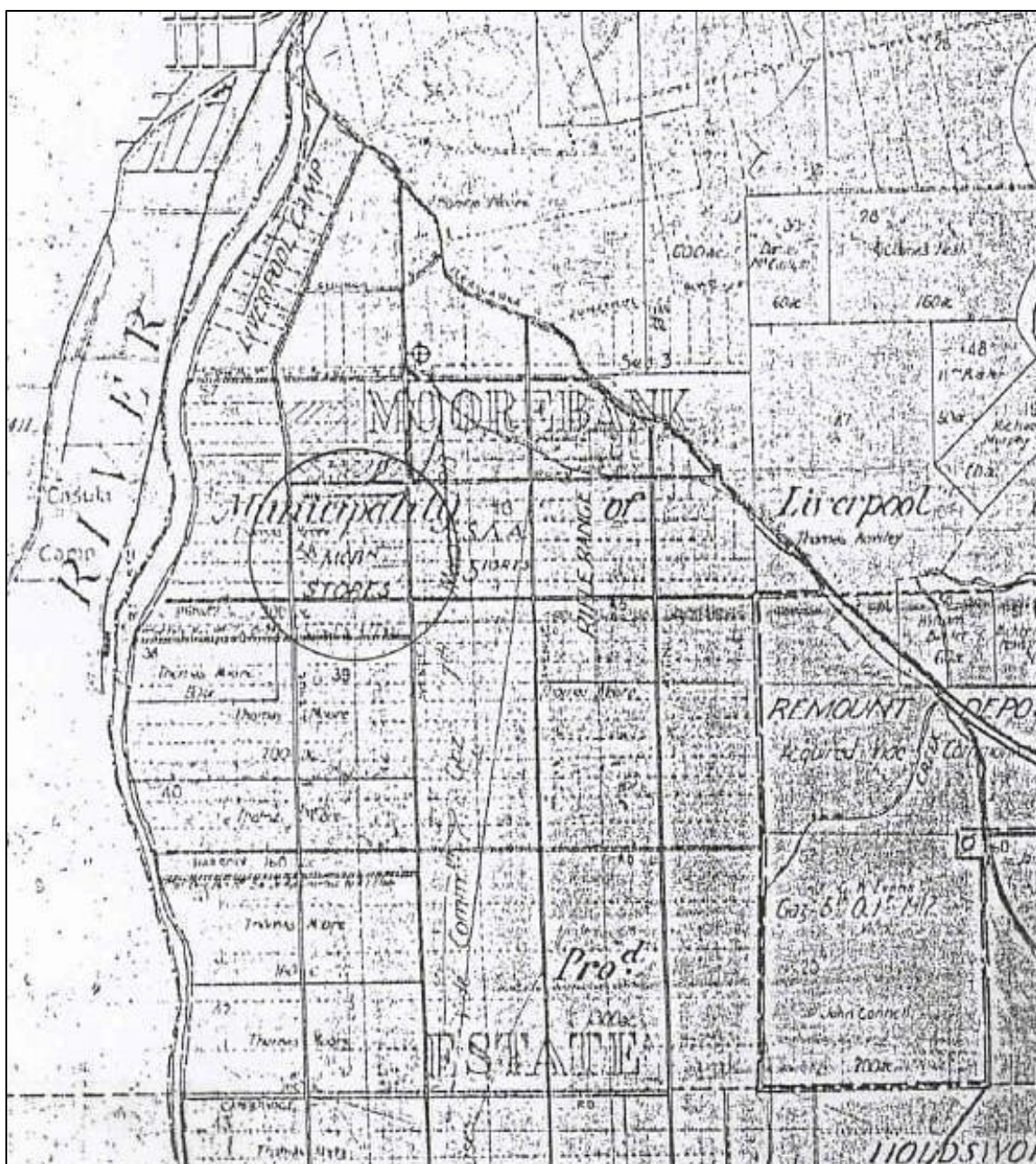




Figure 4: A recruit marking tent line boundaries at the Liverpool camp c. 1914 (Source: Australian War Memorial [AWM], ID No: H03409)



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

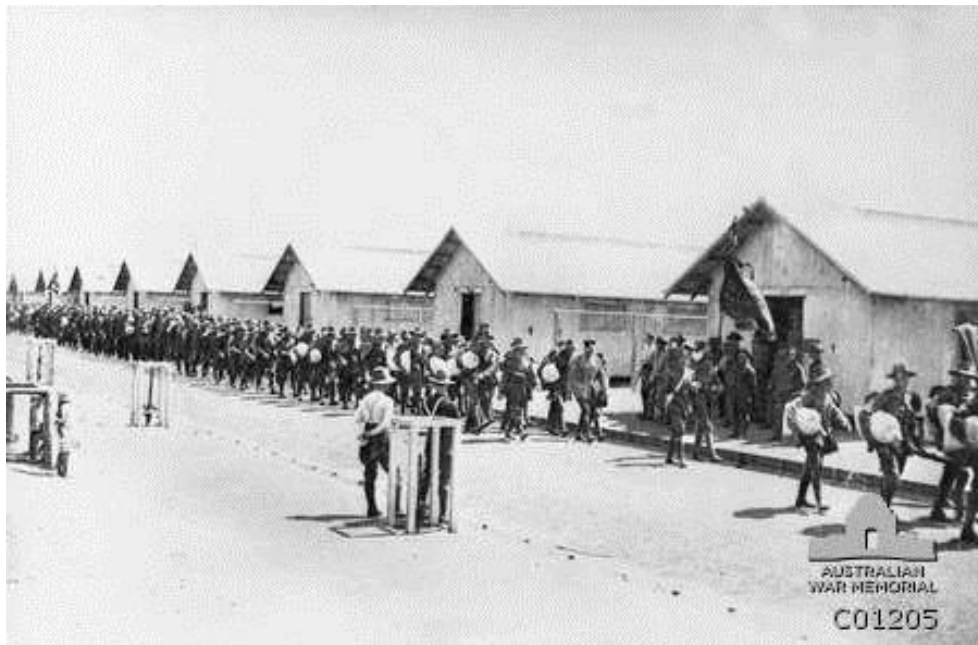
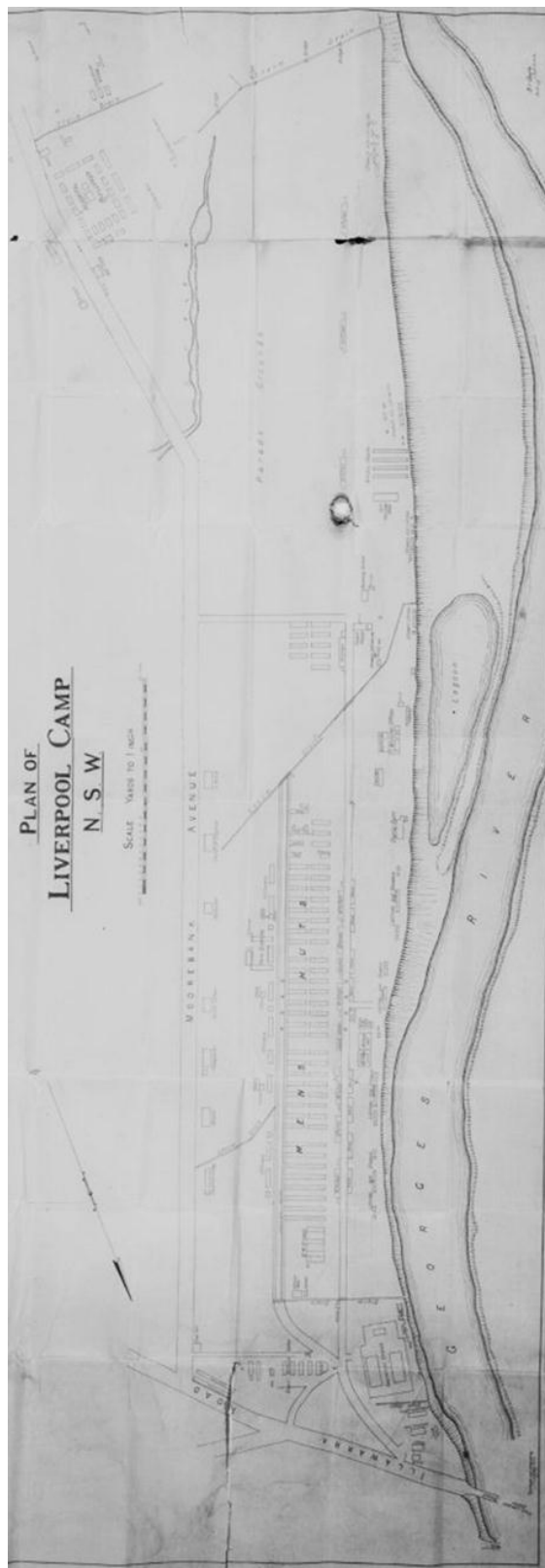




Figure 6: Plan of Liverpool Camp, 1917 (Source: Liverpool City Council
<http://ebranch.liverpool.nsw.gov.au/electronicbooks/Subdivisionplans.pdf>)





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 in-training 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)

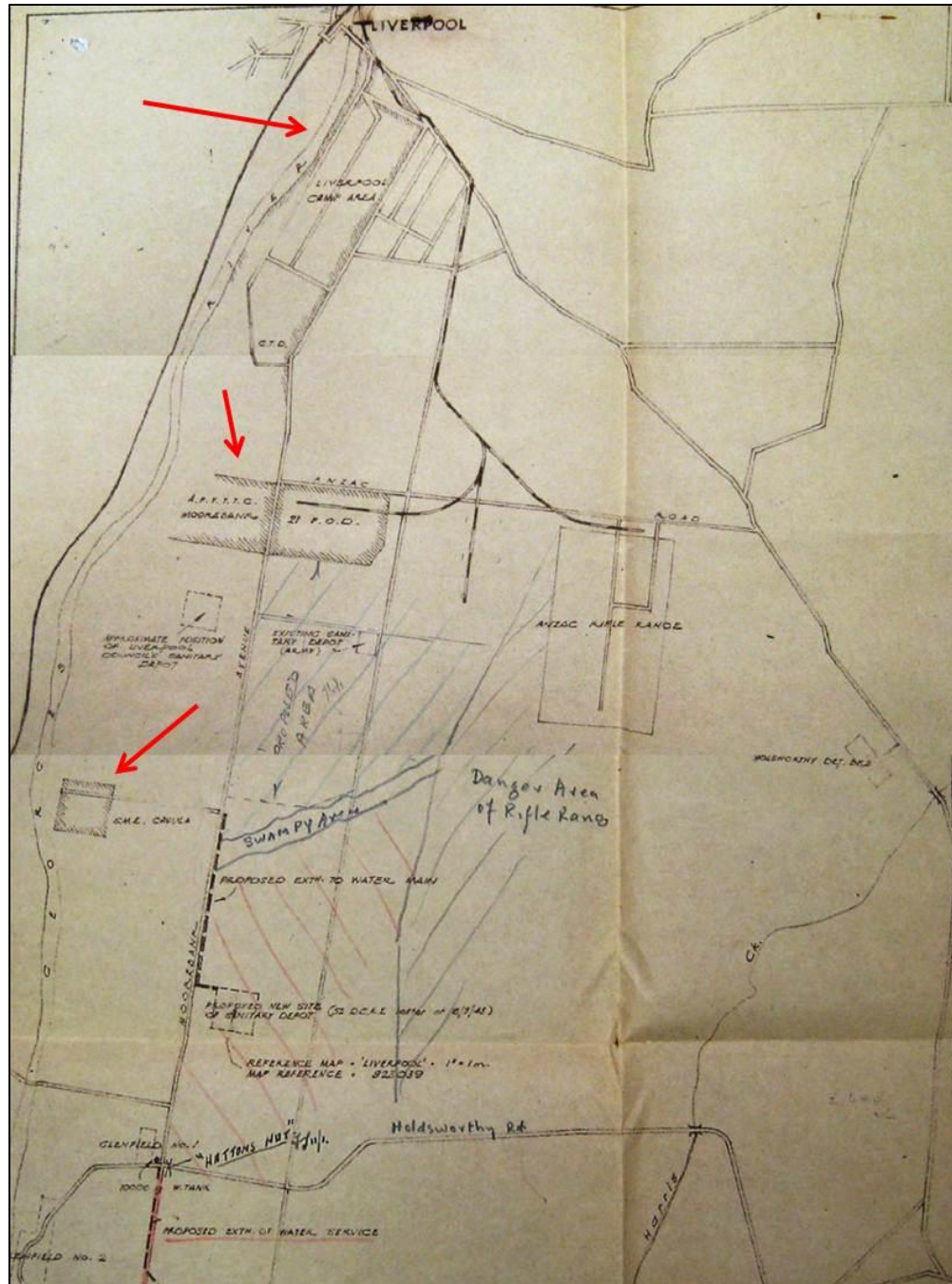
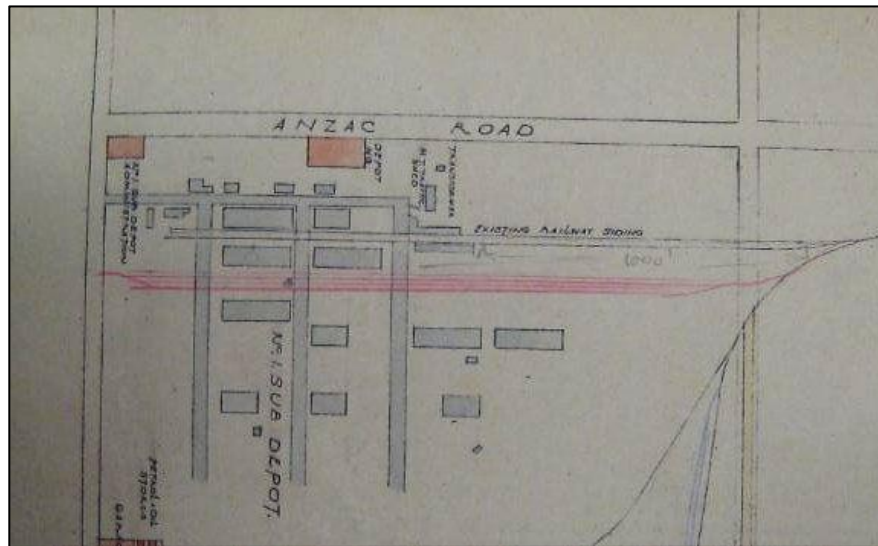


Figure 10: Detail of No. 1 Sub depot on corner of Anzac Rd and Moorebank Avenue 16/9/43 (Source: NAA: SP459/1, 420/7/1153)



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:

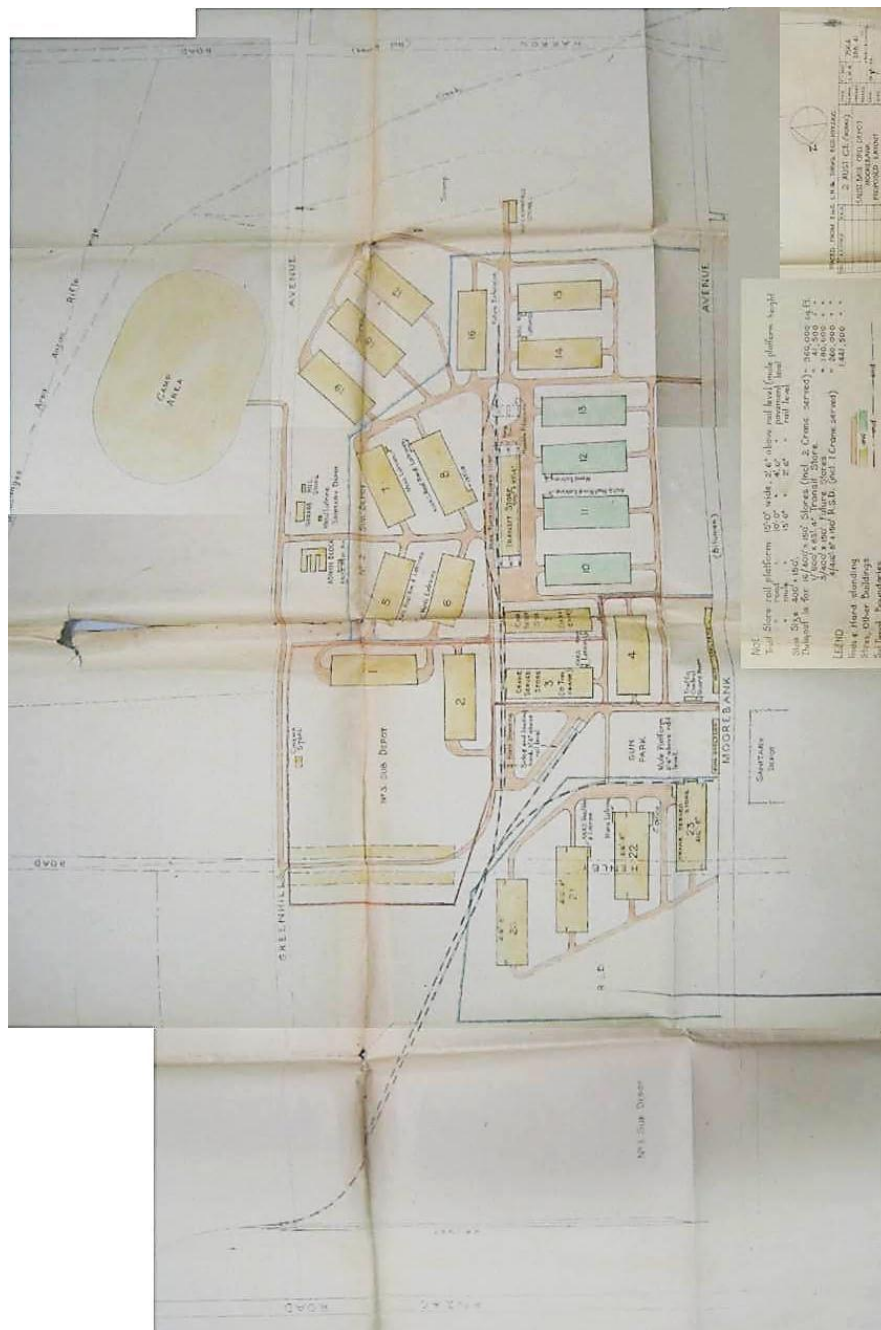
- 17 stores (400' x 150' in size).
- 2 crane served stores (400' x 150').
- 19 offices attached to each store (40' x 20').
- 1 transit store (500' x 83'4").
- Office acc. inside transit store.
- 1 cinematograph store (60' x 40').
- 2 inflammables stores (100' x 50').
- 20, 000 square feet of equipment 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)

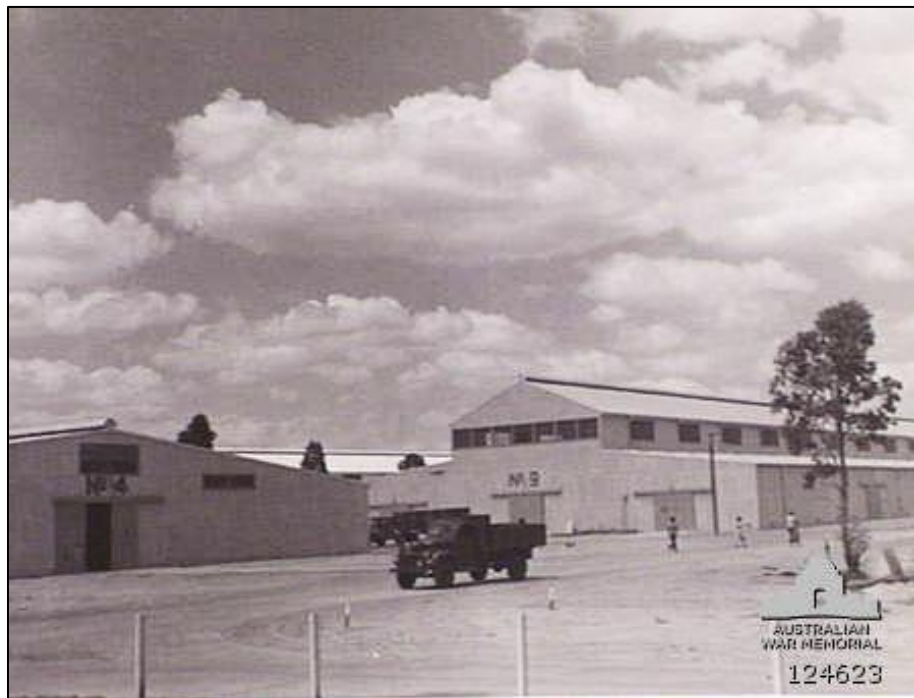
It was intended that the depot would have an ongoing role in peace-time as well as war-time (*Letter from Colonel Garnsey 5/4/44, NAA: SP459/1, 420/7/1153*).

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 DSNSC site.



5.0 Register 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*.

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.

Register of the National Estate

The Register of the National Estate 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 Register of the National Estate (RNE) was frozen on 19 February 2007, which means that no new places can be added, or removed. The Register will continue as a statutory register until February 2012.

On 1 January 2004, a new national heritage system was established under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This led to the introduction of the National Heritage List, which was designed to recognise and protect places of outstanding heritage value to the nation.



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.

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.

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

Suburb	Item	Within the study area?	Lot/DP	Significance	LEP Item number
Moorebank	Australian Army Engineers Group.	Yes, southern section only	Lots 3001–3005, DP 1125930	Local	57
Casula	Casula Powerhouse (former power station)	No	Lots 1 and 2, DP 106957; Lot 1, DP 1115187	Local	10
Casula	Railway viaduct	No	N/A Located 300m south of Casula Powerhouse, Main Southern Railway Line	Local	11
Casula	Two railway viaducts	No	N/A Located Woodbrook Road, Main Southern Railway Line	Local	12
Casula	Glenfield Farm Group, including homestead, barn (former dairy and stables)	No	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)

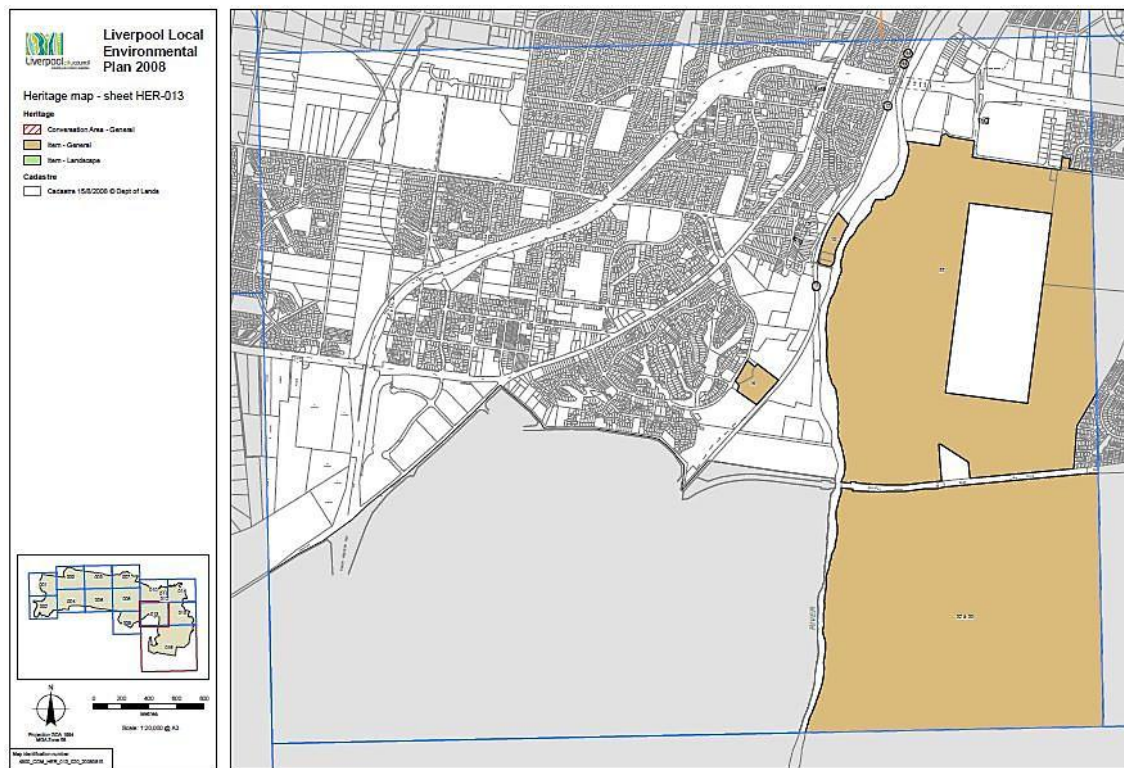


Figure 17: Detail from Liverpool LEP Heritage map, with boundaries of study area in red (Sheet HER_013)



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 83 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.

Figure 20: The visible railway siding to the south, opposite the current Buildings 17 & 18 (previously Buildings 14 & 15)



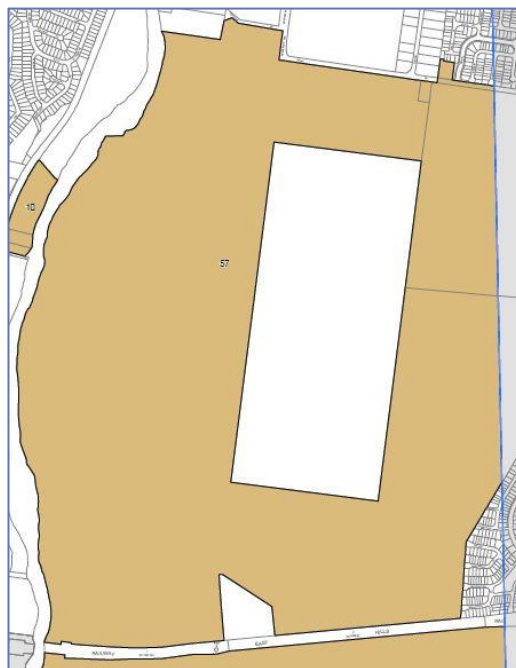
A number of buildings were constructed within the DNSDC site in the mid-late 1990's (Figure 15). These include a cluster of buildings in the south western corner of the site and a number of buildings in the northern section of the site. These buildings do not share the same high heritage values as the 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)'.

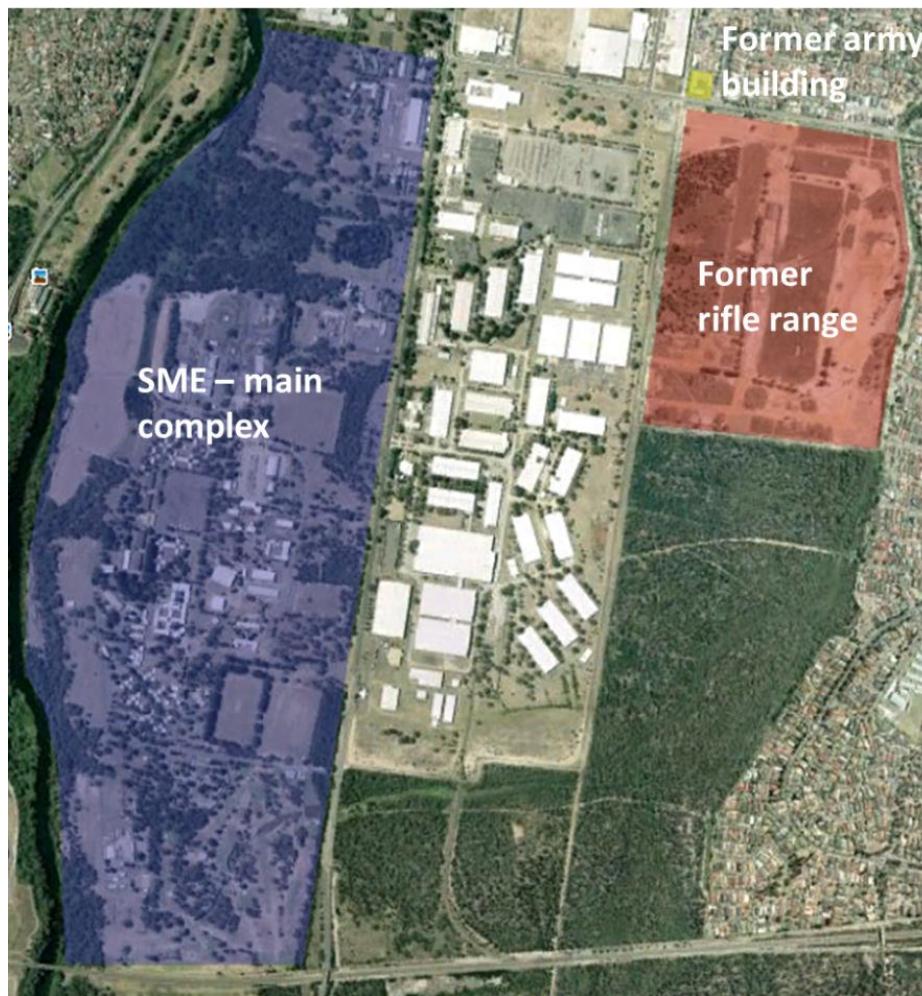
Figure 21: Detail of Item 57 on Liverpool LEP Heritage Map (Sheet HER_013)



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)

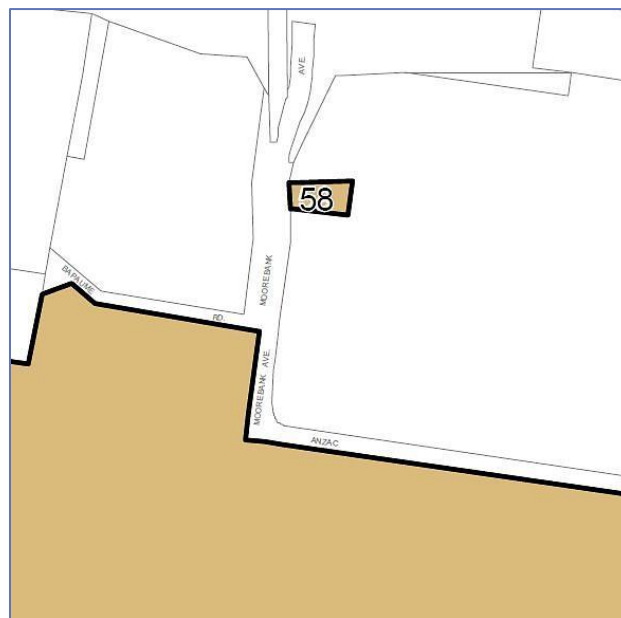


Figure 24: Kitchener House from Moorebank Avenue 2004 (Source: State Heritage Inventory listing “Kitchener House”)



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)

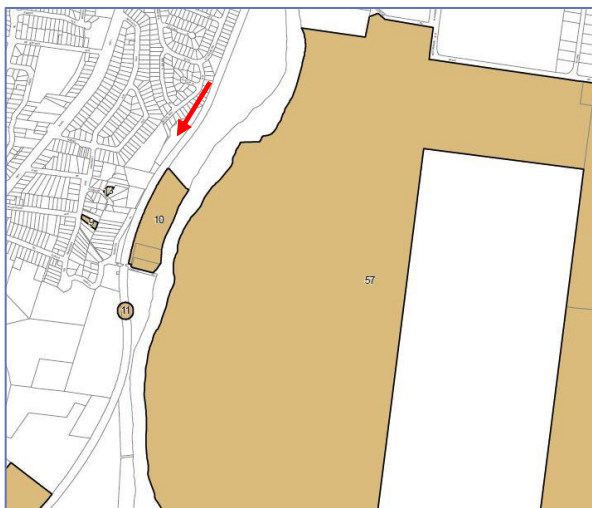


Casula Powerhouse

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)

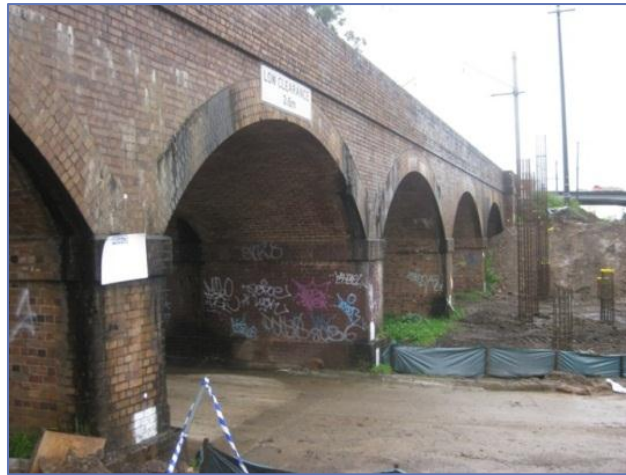


Railway Viaducts

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 south-western extent of the study area.

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.



Criteria	Description	Significance Assessment
C – Aesthetic Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.	The WWII buildings demonstrate the unique aesthetic characteristics of military buildings constructed during the war, and a high degree of technical achievement.
D – Social Significance	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons.	The site has social significance for the extensive community of Defence personnel who have worked at the site through its history, and for the local community of Liverpool and the broader community of Sydney, as the location of Defence operations since 1915.
E – Research Potential	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history.	<p>Moderate scientific significance for its ability to show evidence of the boundaries and alignments of the original land grants in the area, the 1888 Moorebank Farms subdivision, and part of the Liverpool – Anzac Rifle Range – Holsworthy military railway line.</p> <p>Low-moderate archaeological significance for its potential to yield information regarding the early use of the site and, particularly, its use during WWII.</p> <p>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.</p>

Criteria	Description	Significance Assessment
F – Rarity	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history.	The group of 18 World War II buildings at the site are the only known surviving group of such buildings in NSW in 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 – Representative	An item is important in demonstrating the principal characteristics of a class of NSWs (or the local area's): <ul style="list-style-type: none"> • cultural or natural places; or • cultural or natural environments. 	The timber post and beam store buildings have significance as representative examples of this type of store building constructed during World War II for military storage purposes throughout the east coast of Australia.

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 self-reliance 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 assessment of archaeological potential is based on the investigation of areas that may contain subsurface archaeological materials, and the levels of subsequent ground disturbance that may have impacted these deposits. Archaeological potential is the likelihood of intact subsurface archaeological deposits being present.

At least two buildings were located in the study area during the late 19th century, and defence storage facilities were present at the site during WWI. However, subsequent disturbance caused by the construction of the Ordnance Depot in 1944 would probably have eradicated any evidence for these prior structures. Although some smaller scale evidence of pre-WWII occupation of the site may remain it would be dispersed and discrete intact archaeological deposits are not expected.

It is possible that evidence for WWII era features survives in some areas of the site. A number of structures from this period have since been demolished and, although most were replaced with modern buildings, sub-surface evidence for structures located at a distance from the main complex may still be present. Such evidence may relate to the two inflammables store buildings located to the south, or the administration block, garage, POL store, AWAS rest room, and men's latrines located close to the eastern boundary. The areas where these buildings were located are currently undeveloped.

Numerous latrines were located throughout the site, close to the large store buildings. These may have contained refuse deposits and, as they would have been quite deep, it is possible that they survived subsequent disturbance at least partly intact.

Figure 30: Locations of likely archaeological remains (Purple shaded - administration block, garage, POL store, AWAS rest room, and men's latrines) (Google Earth)



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 were probably reinforced concrete, tar, or bitumen, are preserved beneath the current surface (Letter from Colonel Garnsey 5/4/44, NAA: SP459/1, 420/7/1153). 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.

It is recommended that the WWII complex (administration block, garage, POL store, AWAS rest room, and men's latrines) to the east of the DNSDC site is the most likely area to contain intact significant archaeological deposits and it is recommended that further archaeological investigations should be carried out if this area is to be impacted.

Impact Assessment

The DNSDC site is of national heritage significance as a rare complex of WWII era military buildings that have remained in use by Defence until the present day. In particular, the 18 WWII period buildings 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.

A number of buildings were constructed in the mid-late 1990s in the south-western and north-eastern section of the SIMTA site. These structures have lower heritage values than the WWII buildings but within the broader context of the DNSDC site, could have some heritage value.

The proposed development is likely to involve the demolition and/or removal of all or some of the heritage buildings. The heritage values of the site would therefore be significantly impacted. The removal of all or some of the buildings would affect the relationships that currently exist between the different buildings, the historical road and rail alignments, and the broader landscape.

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. It is important to note that the preservation of some buildings in different locations would not mitigate the detrimental impacts to the heritage value of the DNSDC site itself.

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.

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 WWII buildings <i>in situ</i>	Low	The conservation of some or all buildings <i>in situ</i> would preserve some of the heritage value of the site. Values associated with the setting and context of the buildings would be affected.	Adaptive reuse of the buildings <i>in situ</i> , wherever practicable.	The adaptive reuse of some buildings <i>in situ</i> would involve altering the buildings in order to make them suitable for reuse in new ways. It would avoid total 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 their conservation	The preservation of all or some of the 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 WWII structures to provide development areas for intermodal warehousing	Moderate	The demolition of all structures would have a significant impact on the heritage values of the DNSDC site. If the current boundaries of the site were kept intact, the site would retain some local historical significance as an illustration of the boundaries and alignments of the original land grants and subdivisions in the area. The major national significance of the site lies in its role as a military camp, particularly in the WWII buildings (including their fabric, layout, and ability to demonstrate the original road and rail alignments through the military camp) and this would be diminished with the demolition of the buildings.	<p>Architectural interpretation of the heritage value items within the design and construction of structural elements on the SIMTA site (e.g. lighting or building facades).</p> <p>Archival and photographic recording of the site, with copies of the records held at the site and at the new locations of any buildings which have been relocated.</p>	<p>Architectural interpretation would be a way of reflecting the site's military past and memorialising the former buildings and layout at the site. Architectural interpretation would be most effective if employed in conjunction with the relocation and adaptive reuse of some of the WWII buildings.</p> <p>Archival and photographic recording of the site (including the buildings themselves, and the layout of the site) should be undertaken before any changes are made to the site. This mitigation option would not actually conserve the heritage values of the site or buildings, nor provide an easily accessible/visible</p>



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

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



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



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 structures built in the 1990s.	High	Impacts to the heritage significance of the site as a whole would be low if only the 1990s buildings were impacted.	Archival recording of the relationship between the 1990s buildings and other structures on the DNSDC site.	Detailed archival and photographic recording should be undertaken before any changes are made to the site in order collect information on heritage values before they are impacted.
Subsurface excavations within areas of archaeological potential	High	The significance of the impacts will depend on the nature of remains identified within the area of archaeological potential.	Monitoring of works or archaeological test excavations conducted by an appropriately qualified heritage consultant/archaeologist.	Impacts would be mitigated by archaeological investigation as they would provide a means of recording and interpreting information about the 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 Significance	An item is important in the course or pattern of the local area's cultural or natural history.	The site demonstrates the military history of the area and particularly relates to Australia's military engineering history.
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 is associated with the Royal Australian Engineers and is a testimony to their contribution to Australia's war campaigns.
C – Aesthetic Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.	The site reflects the changing technologies used by the Royal Australian Engineers.
E – Research Potential	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history.	There is the potential to gain more information on the site from further architectural, archaeological and documentary research.
F – Rarity	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history.	The site contains a number of war memorabilia that are rare heritage 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

The portion of the study area at the southern edge of the School of Military Engineering has low archaeological potential. It is unlikely that any significant features were located here, and the area underwent major landscape modification in the creation of the Royal Australian Engineers Golf Course.

Any archaeological deposits that may remain within the study area would be of high significance, particularly if they relate to early European settlement, or to the WW1 occupation of the site. All archaeological material is protected by the *Heritage Act 1977*, and the Liverpool LEP and DCP. If any archaeological material was uncovered at any stage, work should cease immediately and an archaeologist should be consulted to determine significance of the find. Further archaeological work may then be required.

Impact Assessment

As outlined in the current Part 3A Concept Plan Application, the SIMTA project will only impact upon the southernmost edge of the School of Military Engineering. This portion of the site overlooks the East Hills railway line and is part of the Royal Australian Engineers Golf Course. It has undergone significant landscape modification and it is unlikely that the SIMTA project would affect any heritage items or archaeological deposits in this area.

Table 4: Development and mitigations options table – SME.

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

7.2 Heritage listed items in the vicinity of the study area

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.”

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>)





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. However, the demolition of the military structures at the SIMTA site would affect a site with which Kitchener House has a long-standing historic relationship.

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

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

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.

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

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

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.

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

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

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.

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

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

Glenfield Farm

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”).

As the adjacent landfill area is the site of part of the proposed rail corridor, it is likely that the SIMTA development will have some impact on views to and from Glenfield Farm. Because the detailed design of the rail infrastructure comprising the rail link will be subject to a further Project Application, it is not currently possible to accurately assess the potential impact of the development. The degree of impact will depend on the height and scale of the development within the rail corridor.



Figure 32: Glenfield Farm (highlighted in pink) in relation to the study area



Table 9: Development and mitigations options table – Glenfield Farm.

Development option	Likelihood	Significance of impact	Possible mitigation strategies	Summary of mitigation strategy /effect on heritage values
Develop rail corridor to the east of the Glenfield curtilage.	High	Possible impacts to views from Glenfield Farm..	Adhere to Glenfield CMP. Limit impacts on views from the Farm to the east across the rail corridor.	If views are retained there will be minimal impacts to heritage values.

8.0 Discussion

The findings of the non-Indigenous heritage assessment of the SIMTA proposal indicated that there were no heritage constraints on proposed development within the School of Military Engineering golf course, along the railway corridor, to the south of the SIMTA site, or the land within the Glenfield waste depot. The majority of these areas are heavily disturbed and are unlikely to contain items of non-Indigenous heritage significance.

The proposed intermodal terminal development will have a significant impact on the heritage significance of the DNSDC site, which is currently leased by the Australian Defence Force and is therefore protected by the EPBC Act 1999. Defence is required to begin consultation with SIMTA and the Australian Heritage Council regarding the heritage values and management of the site. Different legislative requirements will apply to the DNSDC/SIMTA site, depending on when development approval is sought and which form of statutory protection the site is under at that time.

Regardless of the statutory context, the heritage values of the DNSDC site are known to be high. It is therefore 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. If buildings are to be demolished re-use of heritage fabric within an interpretive context would be appropriate. If buildings with heritage values are to be demolished or altered, archival recording will be necessary. Some recording was completed in 2001 (Brooks & Associates 2002:28) although updates to this record will be necessary.

The historical landscape context of the site should also be taken into account. Elements such as the alignment of the former rail track may be preserved, or embedded through conservation or interpretation in the new development design (Brooks & Associates 2002:28).

At the Project Applications stage, once divestment consultation has been completed and the heritage status of the site is known, a Statement of Heritage Impacts should be produced for the SIMTA site which is based on the information provided in this, and previous, reports. More detailed recommendations about heritage management strategies can be made at this stage.

The area where the WWII complex (administration block, garage, POL store, AWAS rest room, and men's latrines) once stood, in the eastern section of the SIMTA site is likely to contain intact archaeological

deposits as it has not been built on since the demolition of the above structures. It is recommended that further archaeological investigations should be carried out at the Project Application stage if this area is to be impacted.

Two heritage listed sites within the vicinity of the study area may be impacted by the construction of the intermodal terminal and rail link. Glenfield Farm is listed on the State Heritage Register and the Conservation Management Plan for the site emphasises the importance of views and context of the historic farm group. The proposed rail link will run adjacent to the farm group along the present Glenfield waste facility. A Statement of Heritage Impacts will be required when the design of the rail link is finalised. The Liverpool DCP outlines guidelines relating to Kitchener House and its curtilage including the screening of the house from visual impacts.

Table 10: Summary of Heritage Issues and Actions

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	Actions dependant on outcome of divestment negotiations. Statement of Heritage Impacts at PA stage.
Area of archaeological potential within DNSDC site (Figure 29)	Yes	Within Commonwealth Heritage Listed site	Further archaeological work if impacted.
Kitchener House	No	Liverpool LEP	Adhere to DCP guidelines for impacts on curtilage.
Glenfield Farm	No	State Heritage Register	Statement of Heritage Impacts for views and context at PA stage.

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 School of Military Engineering along the railway corridor, and to the south of the SIMTA site, 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.
- 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. It is recommended that consultation between Defence, SIMTA, and the Australian Heritage Council should be commenced regarding the management and status of heritage items within the Commonwealth Heritage Listed site, as part of the divestment process prior to the end of the current lease.
- The actions necessary before heritage impacts can occur at the SIMTA site will depend on the results of this consultation. A Statement of Heritage Impacts should be produced for each stage of the Project Application process, once the legislative obligations and development plans are more definitively known.
- Further archaeological investigation will be required in the area designated as having archaeological potential (former admin block, latrines etc.) if it is to be impacted by the intermodal terminal development.
- A Statement of Heritage Impacts should be prepared for Glenfield farm during the staged Project Application for the rail corridor adjacent to it, as the proposed development may impact on views, fabric and setting of this state significant site.
- Development near Kitchener House should adhere to the Liverpool DCP Section 2.4 in maintaining adequate screening of Kitchener house to avoid impacts on views and context.
- 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 to impact on heritage items within sections of the study area not owned or leased by the Commonwealth.

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>>)

DEFENCE DISPOSAL CHECKLIST	
Steps	Finding the answer
1. Identify the values of your site	<p>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</p> <ul style="list-style-type: none"> • 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". <p>Remember: Heritage values can relate to:</p> <ul style="list-style-type: none"> • 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
2. Identify the best way to protect values at your site	<p>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).</p> <ul style="list-style-type: none"> • 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 I of the Defence Heritage Toolkit for further information about ECCs. <p>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,</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>The management of tangible values might include protection of the building, site, curtilage, precinct or landscaping aspects that represent the values of the site.</p> <p>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.</p> <p>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.</p>

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Steps	Finding the answer
2. Identify the best way to protect values at your site (continued)	<p>For sites with a greater requirement for protection of its heritage values, methods of protection in the DCMS may include:</p> <ul style="list-style-type: none"> • 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 Environment 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. <p>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.</p>

DEFENCE DISPOSAL CHECKLIST

Steps	Finding the answer
2. Identify the best way to protect values at your site (continued)	<p>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.</p> <p>It is a requirement that Defence identify the values and take appropriate steps to satisfy themselves that there will be either:</p> <ul style="list-style-type: none"> • 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. <p>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.</p> <p>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.</p> <p>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.</p>



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3. Develop your conservation management strategy	<p>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:</p> <ol style="list-style-type: none"> 1. Your covering letter to as per standard template provided in the Infrastructure Manual. 2. Project Outline 3. Scope of Services