

Appendix P – Heritage assessment



SITA Australia Pty Ltd

Lucas Heights Resource Recovery Park Project

Heritage Assessment

August 2015

Executive summary

GHD Pty Ltd commissioned Artefact Heritage, an independent expert, to prepare a heritage assessment in accordance with the Secretary's Environmental Assessment Requirements for the proposal.

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 26 February 2015 for an area that included the entire proposal site and some of the surrounding area.

A search was also undertaken of the following heritage databases or lists on 17 April 2014:

- Register of National Estate (National Heritage List)
- National Trust Register
- State agency Section 170 registers (searched via the State Heritage Inventory)
- State Heritage Register
- Sutherland Local Environmental Plan 2006
- Draft Sutherland Local Environmental Plan.

The SLEP was gazetted on 23 June 2015. A search of the heritage database in the SLEP 2015 was undertaken on 14 July 2015.

The preliminary heritage assessment found that there are no known Aboriginal objects within the study area. The proposed impact area has a low archaeological potential. There are no known intangible or cultural Aboriginal heritage values associated with the study area. It has been a landfill site for many years therefore any values are likely to have been previously impacted. It is therefore unlikely that Aboriginal heritage values would be impacted by the proposal.

There is one LEP listed item partially within the study area, but outside of the proposal footprint. The stand of Eucalyptus Paniculata, or Grey Ironbark would not be impacted by the proposal. As the site has been used for a landfill for many years, additional visual impacts to the LEP item are unlikely.

The study area has been assessed as having low non-Aboriginal archaeological potential and therefore impacts to relics are unlikely.

The following mitigation measures are proposed:

- An unexpected finds procedures would be developed and included in the CEMP. This would outline the procedures to follow if unexpected Aboriginal objects or non-Aboriginal relics were uncovered during construction.
- Site Impact Recording Forms for the previously impacts sites, AHMS 52-2-1108, 52-2-1029, 52-2-1030 and 52-2-1031 would be submitted to OEH.

This report addresses the Secretary's Environmental Assessment requirements and concludes that the proposal would meet the following objectives:

- No significant impact on the community or environment
- No impact on Aboriginal cultural heritage values
- No impact on non-Aboriginal heritage items or values.

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Appendices

Appendix A - Due Diligence Heritage Assessment for the Lucas Heights Resource Recovery
Park

Glossary

Term	Definition
ANSTO	Australian Nuclear Science and Technology Organisation
ARRT facility	Advanced Resource Recovery Technology facility
EIS	Environmental Impact Statement
EPA	New South Wales Environment Protection Authority and any successor body.
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
Currently approved landform	The currently approved landform heights and contours outlined in the 1999 EIS
GIS	Geographic Information Systems
GO facility	The Garden Organics facility at LHRRP, that undertakes composting of waste including green and garden waste, but excluding waste types such as food waste and biosolids
GLALC	Gandangara Local Aboriginal Land Council
Landform reprofiling	Proposed changes to currently approved landform at the LHRRP.
LHRRP	Lucas Heights Resource Recovery Park
Mitigation	The application of techniques to reduce environmental impacts arising from the proposal
OEMP	Operational Environment Management Plan and all relevant future documents, these will be provided for the landfill, GO and ARRT and will detail how these projects can be managed to meet the environmental outcomes for the site
PCYC Mini-Bike Club	The mini-bike club operated by the Police and Community Youth Clubs NSW Limited (PCYC).
SSC	Sutherland Shire Council
SEAR	Secretary's Environmental Assessment Requirements (formerly known as Director-General's Requirements or DGRs)
SICTA	Sydney International Clay Target Association and any successor body
SITA	SembSITA Australia Pty Ltd (SembSITA) is the holding company for the SITA Australia (SITA) group of companies in Australia. SembSITA is the parent company of both SITA and WSN Environmental Solutions Pty Ltd (WSN). WSN owns part of the land on which the LHRRP is situated, and leases the remainder from ANSTO. SITA holds the environmental protection licence (EPL), and so is the operator of the facilities at LHRRP. For simplicity, the term 'SITA' is used to refer to all of these organisations in this report.

1. Introduction

1.1 Purpose of this report

SITA Australia (SITA)¹ is proposing a number of activities at the Lucas Heights Resource Recovery Park (LHRRP) in Lucas Heights (referred to in this report as 'the proposal'). GHD Pty Ltd, on behalf of SITA, commissioned an independent expert (Artefact Heritage) to prepare a heritage assessment in accordance with the Secretary's Environmental Assessment Requirements for the proposal.

This report has been prepared to provide an assessment of heritage associated with the proposal as an input to the environmental impact statement. Due to the existing operational arrangements at LHRRP, Sutherland Shire Council (SCC) is a joint applicant for the proposal. The environmental impact statement is being prepared by GHD in accordance with the requirements of Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (the EP&A Act).

The report addresses the requirements of the Secretary of the NSW Department of Planning and Environment (the Secretary's Environmental Assessment Requirements (SEARs No SSD-6835) dated 3 February 2015).

In addition to addressing the SEARs requirements, this report provides an assessment of how well the proposal meets SITA's objectives of having no significant impacts on the community or environment. Environmental management and mitigation measures related to heritage are proposed (where necessary) to mitigate potential impacts and ensure that they are managed in accordance with statutory requirements, regulations and community expectations.

1.2 Objectives

The following objectives have been identified:

- No significant impacts on the community or environment
- No impact on Aboriginal cultural heritage values
- No impact on non-Aboriginal heritage items or values

1.3 Proposal overview

The LHRRP consists of approximately 205 hectares (ha) in two ownerships. 89 ha is owned by SITA and 116 ha owned by Australian Nuclear Science and Technology Organisation (ANSTO) and leased to SITA for waste management or other agreed purposes. The following activities are proposed at the LHRRP and are collectively referred to as 'the proposal'. The proposal would not have a significant impact on the community. In addition to the proposal detailed below, SITA are committed to better environmental outcomes by the application of best practice prevention, mitigation and rectification measures:

- **Reprofiling of existing landfill areas to provide up to 8.3 million cubic metres of additional landfill airspace capacity.** This is equivalent to approximately 8.3 million tonnes of waste, assuming 1 tonne of waste utilises 1 cubic metre of waste disposal airspace. As the process of reprofiling would include removal and replacement of

¹ SembSITA Australia Pty Ltd (SembSITA) is the holding company for the SITA Australia (SITA) group of companies in Australia. SembSITA is the parent company of both SITA and WSN Environmental Solutions Pty Ltd (WSN). WSN owns part of the land on which the LHRRP is situated, and leases the remainder from ANSTO. SITA holds the environmental protection licence (EPL), and so is the operator of the facilities at LHRRP. For simplicity, the term 'SITA' is used to refer to all of these organisations in this report.

capping material over previously landfilled waste and augmentation of gas and leachate collection systems, the environmental performance of the site would be ultimately improved by reducing the infiltration of stormwater into the landfill (resulting in reduced landfill leachate in the longer term) and increase the overall amount of landfill gas recovered from the site.

As part of the proposal, SITA is seeking permission to increase the approved quantity of waste landfilled at the site from 575,000 to 850,000 tonnes per year. This would enable the reprofiling of the site to be completed in 2037.

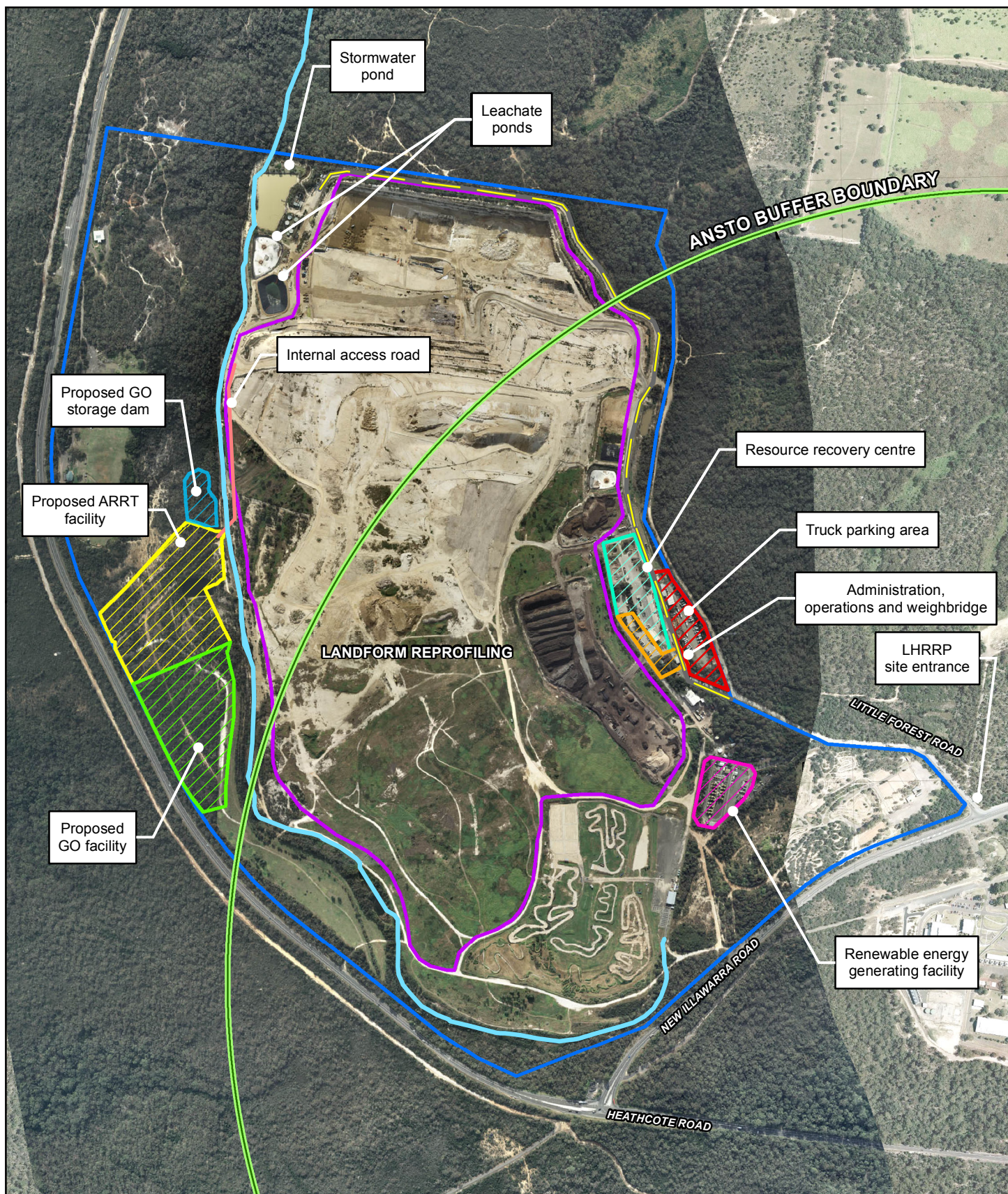
- **Relocation and expansion of the existing garden organics (GO) facility.** The existing garden organics facility would be relocated to the western side of the site adjacent to Heathcote Road. Approval is being sought to increase the approved capacity from 55,000 to 80,000 tonnes of green waste and garden waste received per year at the facility. The new facility would include the partial enclosure, active aeration and covering of the first four weeks of the active composting process, which coincides with the period of highest potential for odour generation, to enable more effective control of odour. Relocation of the facility would result in increased separation distances from the current nearest occupied land at ANSTO, existing residential areas and the proposed new residential area at West Menai.
- **Construction and operation of a fully enclosed advanced resource recovery technology (ARRT) facility.** The ARRT would be located on the western side of the site adjacent to the GO facility and would process and recover valuable resources from up to 200,000 tonnes of general solid waste per year, reducing the amount of waste disposed to landfill to approximately 60,000 tonnes per year. This would divert up to 140,000 tonnes of waste per year from landfill. SSC and other councils would have the opportunity to have their municipal waste processed by the ARRT facility.
- **Community parkland.** The landfill reprofiling would increase the area available for future passive recreation following site closure from 124 ha (existing approved parkland) to a total of 149 ha, an increase of approximately 25 ha. Landfilling would cease in 2037 after which time the site would be rehabilitated and converted to a community parkland, with capping and landscaping to be completed and the site made available for community use in 2039.

As part of the proposal SITA has committed to entering into an agreement with SCC in the form of a Voluntary Planning Agreement which includes 'environmental undertakings'. In addition operational environmental management plans have been prepared for the landfill, GO facility, ARRT facility and post closure measures to manage potential environmental impacts, reflect regulatory requirements and provide guidance for site operators to undertake activities in an environmentally sound manner.

A Planning Proposal is being submitted in parallel with this State Significant Development Application. The Planning Proposal seeks to include new local provisions on the LHRRP site within the Sutherland Local Environmental Plan 2015 (SLEP), which would allow the proposal (a waste or resource management facility) to be undertaken on the proposal site.

The expansion of the LHRRP which is outlined in this EIS would not prevent the proposed future use of the land for recreational purposes, which is currently approved and would occur when the existing facility ceases operation in 2025. The proposal would however extend the timeframe for which the land would be unavailable for recreational purposes until 2037, due to the extension of operations at the proposed LHRRP.

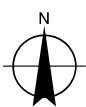
These key components of the proposal are shown on Figure 1.1. The proposed final landform and preliminary masterplan for the parkland is shown in Figure 1.2.



LEGEND

ANSTO buffer boundary	Proposed GO facility	Renewable energy generating facility
Mill Creek	Proposed ARRT facility	Lucas Heights Resource Recovery Park boundary
Internal access road	Resource Recovery Centre	Landform reprofiling boundary
Existing access road	Administration, operations and weighbridge	Truck parking area

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Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



SITA Australia
Lucas Heights Resource Recovery Park

Job Number 21-23482
Revision A
Date 28 May 2015

Key existing infrastructure and proposed facility layout

Figure 1.1

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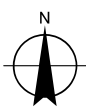
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SITA Australia
Lucas Heights Resource Recovery Park

Job Number	21-23482
Revision	A
Date	24 June 2015

Proposed parkland master plan **Figure 1.2**

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Data source: Taylor Brammer Landscape Architects Pty Ltd. Created by:jrichardson

1.4 Definitions

The following terms are used within this report when referring to the proposal site and surrounding areas:

The 'LHRRP' refers to the entire Lucas Heights Resource Recovery Park. The boundary of the LHRRP is shown as the blue line on Figure 1.3.

The 'proposal site' refers to the areas where the activities described in Section 1.3 would be located. The boundary of the proposal site is shown as the red line on Figure 1.3.

1.5 Location of the proposal

1.5.1 Existing

The proposal would be located within the boundary of the existing LHRRP. The LHRRP is located within the Sutherland local government area, approximately 30 kilometres (km) south west of the Sydney city centre. The site is bound to the west by Heathcote Road and New Illawarra Road to the south.

Specifically, the proposal would be located on:

- Lot 101 DP 1009354
- Lot 3 DP 1032102
- Lot 2 DP 605077

It is noted that the proposal directly affects only a portion of each of these lots. There is minimal encroachment into the SICTA leased land (part of Lot 3 DP 1032102).

The proposal site, within the boundary of the LHRRP, is shown on Figure 1.4.

The site is currently accessed from Little Forest Road, off New Illawarra Road.

Current facilities at the LHRRP include:

- Landfill
- Resource recovery centre and waste collection point
- GO facility for processing garden organics
- Renewable energy production (operated by Energy Developments Ltd)
- Truck parking area
- Community use areas (mini bike area at the southern extent of the site run by the Sutherland Police Citizens Youth Club and the Sydney International Clay Target Association (SICTA) leased land on the north western side of the site)

There are also several ancillary buildings and structures (e.g. weighbridge, machinery workshop, administration offices, stormwater and leachate dams).

The following land uses are located in the immediate vicinity of the LHRRP:

- Bushland areas that form part of ANSTO's exclusion zone (to the east and south)
- ANSTO's facilities (to the east on the opposite side of New Illawarra Road)

Land uses in the surrounding area include:

- Holsworthy Military Reserve (to the west, northwest and southwest)

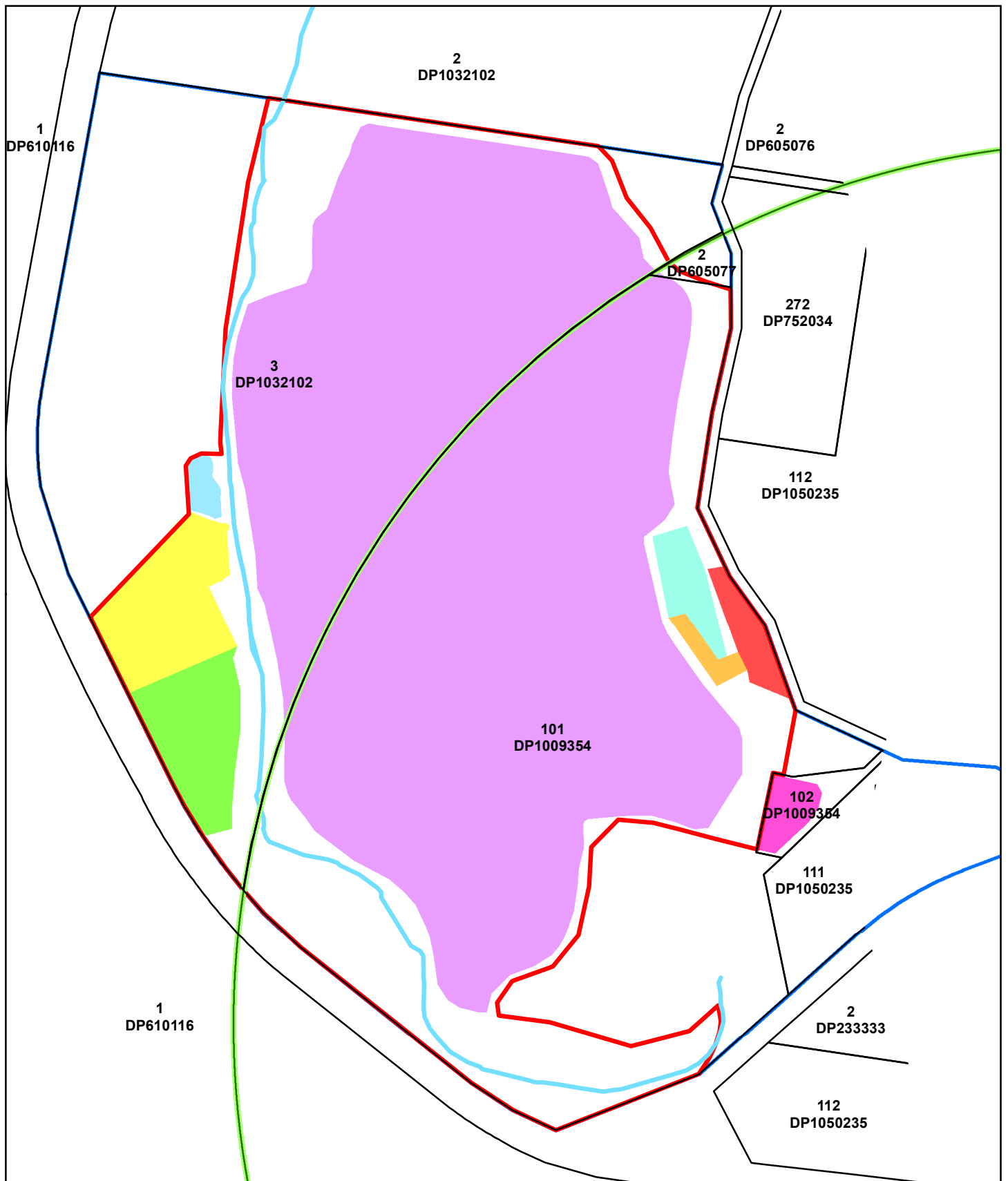
- The Ridge Sports Complex, a major regional sporting facility being developed on the site of the former Lucas Heights Waste and Recycling Centre (approximately 2.5 km to the north east)
- Lucas Heights Conservation Area (immediately to the north of the LHRRP)
- The suburbs of North Engadine (approximately 2 km to the east) and Barden Ridge (approximately 3 km to the north east)

Figure 1.4 shows these key areas.

1.5.2 Potential future surrounding land uses

The Gandangara Local Aboriginal Land Council (GALC) is proposing a development in the West Menai area. The West Menai State Significant Site contains 849 ha of mostly undeveloped land, covering parts of Menai, Barden Ridge and Lucas Heights.

The western boundary of the proposed development is Heathcote Road and the site extends east across Mill Creek to the edge of the existing Menai residential area close to New Illawarra Road. The location of the proposed West Menai State Significant Site is shown on Figure 1.4.



LEGEND

ANSTO buffer boundary

Mill Creek

Cadastre

Proposal site boundary

Lucas Heights Resource Recovery Park boundary

Truck parking area

Proposed GO facility

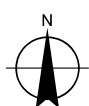
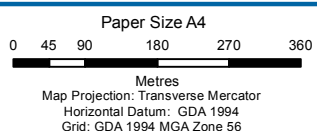
Proposed ARRT facility

Resource Recovery Centre

Administration, operations and weighbridge

Renewable energy generating facility

Landform reprofiling boundary



SITA Australia
Lucas Heights Resource Recovery Park

Job Number 21-23482
Revision A
Date 25 Jun 2015

The proposal site

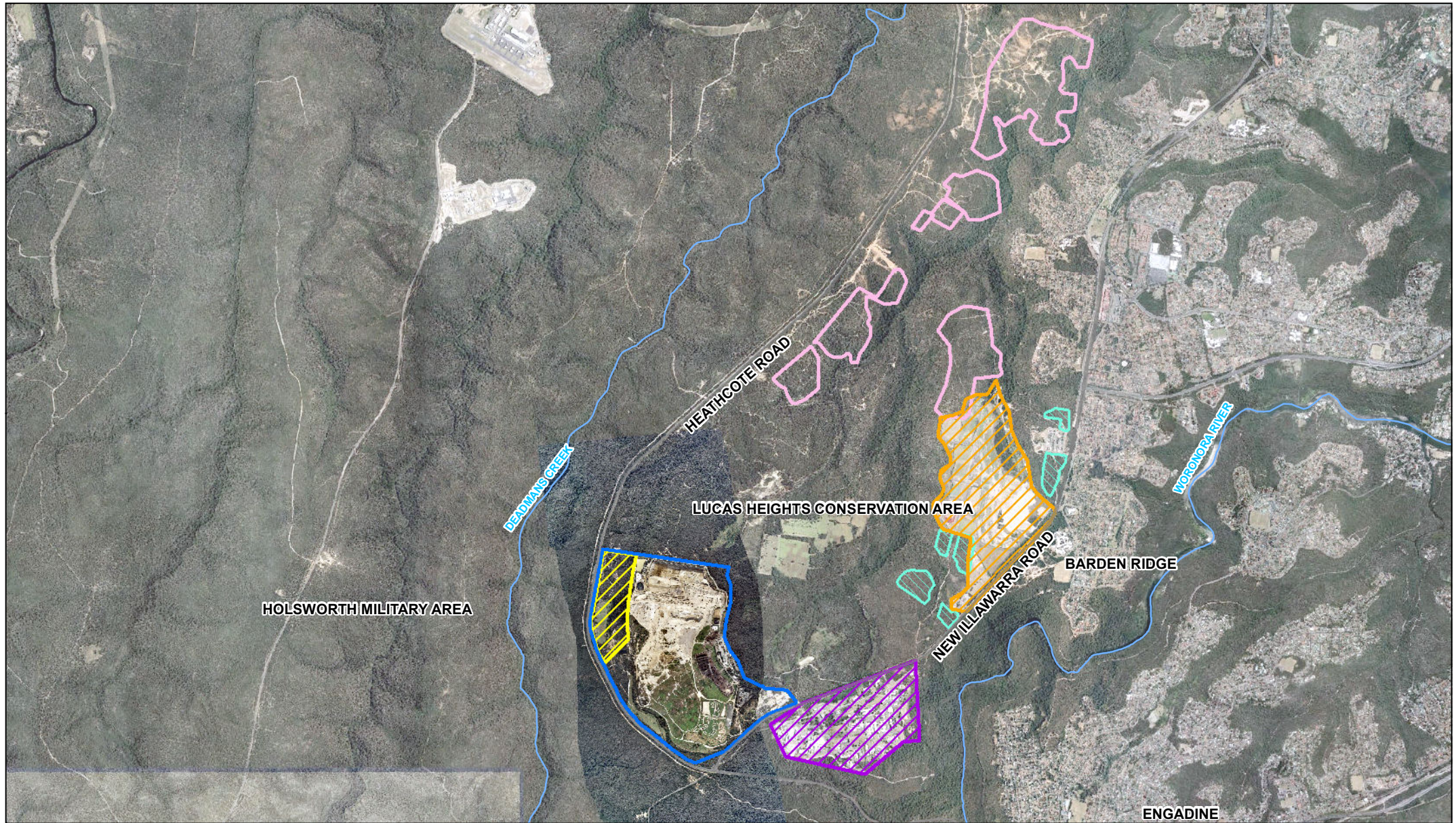
Figure 1.3

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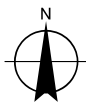
15/133 Castlereagh Street Sydney NSW 2000 Australia T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com W www.ghd.com

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Aerial Imagery: ESRI, 2014. Works: GHD/SITA, 2014. Roads: NSW LPMA, 2012. Created by:afoddy



Paper Size A4
0 250 500 1,000 1,500
Metres
Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Legend

- LHRRP boundary
- SICTA boundary
- ANSTO
- Barden Ridge Sports Complex

- Potential future receptors
- Future receptors – Residential



SITA Australia
Lucas Heights Resource Recovery Park

Job Number	21-23482
Revision	B
Date	14 Aug 2015

Surrounding landuses

Figure 1.4

1.6 Secretary's Environmental Assessment Requirements and agency requirements

The specific SEARs and agency requirements addressed in this report are summarised in Table 1.1.

Table 1.1 Secretary's Environmental Assessment Requirements and agency requirements

Assessment requirements	Where addressed in report
Aboriginal Heritage - including tangible and intangible Aboriginal Cultural Heritage Values across the site, and addressing:	The four Aboriginal sites registered within the study area were found to have been previously impacted. There have been high levels of ground surface disturbance and modification which have resulted in a low Aboriginal archaeological potential for the proposed impact area
- the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW 2011	As no Aboriginal values were identified by this assessment adherence to the full requirements of the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW 2011 was not required
- the Aboriginal Cultural Heritage Consultation requirements for proponents 2010	As no Aboriginal values were identified by this assessment adherence to the full requirements of the Aboriginal Cultural Heritage Consultation requirements for proponents 2010 was not required.
- the details of conservation measures and measures to avoid or mitigate impacts	No impacts are proposed therefore no conservation measures are required.
Heritage - including heritage items and values of the site and surrounding area, taking into account the NSW Heritage Manual and Assessment Heritage Significance Guidelines.	Heritage listings were identified. There will be no impacts to listed or unlisted non-Aboriginal heritage items or areas of archaeological potential.
Agency requirements	
Office of Environment & Heritage (OEH)	
1.1 The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the project and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011).	Refer Appendix A – section titled <i>Archaeological potential</i>
1.2 Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.	Refer Appendix A - no Aboriginal values were identified by this assessment

Assessment requirements	Where addressed in report
1.3 Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	Refer Appendix A - no Aboriginal constraints on the proposal

1.7 Scope and structure of the report

1.7.1 Scope of report

This report has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development (SSD) at Lucas Heights Resource Recovery Park (LHRRP). It outlines the results of a preliminary heritage assessment which addresses Aboriginal and non-Aboriginal heritage and archaeology.

1.7.2 Structure of report

The report is structured as follows:

- **Chapter 1 – Introduction.**
- **Chapter 2 – Legislative context.** This chapter provides an overview of the legislation relevant to this assessment.
- **Chapter 3 – Methodology.** This chapter describes the overall assessment methodology.
- **Chapter 4 – Impact assessment.** This chapter assesses the impact of proposal on Aboriginal and non-Aboriginal heritage and archaeology.
- **Chapter 5 – Mitigation measures.** This chapter contains the proposed measures to mitigate potential impacts identified in the impact assessment.
- **Chapter 6 - Conclusions.**

The letter report prepared by Artefact Heritage is contained in Appendix A.

2. Legislative context

2.1 Overview

The following sections provide an overview of the legislations relevant to this impact assessment.

2.2 National Parks and Wildlife Act (NPW Act) (1974)

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

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

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

2.3 Heritage Act (1977)

The Heritage Act is the primary piece of State legislation affording protection to heritage items (natural and cultural) in NSW. Under the Heritage 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. State significant items are listed on the NSW State Heritage Register (SHR) and are given automatic protection under the Heritage Act against any activities that may damage an item or affect its heritage significance. The Heritage Act also protects 'relics', which can include archaeological material, features and deposits.

The proposal has been deemed State Significant Development (SSD) by the NSW Department of Planning and Infrastructure and as such, approval is not required from the NSW Heritage Division to impact historic archaeological remains or SHR listed items, providing the requirements of the SEARs are met.

2.4 Environmental Planning and Assessment Act (1979)

The Environmental Planning and Assessment Act 1979 (EP&A Act) is administered by the NSW Department of Planning and Infrastructure, and provides planning controls and requirements for environmental assessment in the development approval process. This Act has three main parts of direct relevance to Aboriginal cultural heritage. Namely, Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment process for local government (consent) authorities and Part 5 which relates to activity approvals by governing (determining) authorities.

Part 4, Division 4.1 of the EP&A Act established an approval regime for development that is declared to be State significant development by either a State Environmental Planning Policy (SEPP) or Ministerial Order. In accordance with Section 89E of the EP&A Act, the Minister is the consent authority for State significant development. An environmental impact statement (EIS) is required to support a development application for State significant development.

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A 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 EP&A Act also requires that local governments prepare planning instruments (such as Local Environmental Plans (LEPs) and Development Control Plans) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required. The current investigation area falls within the boundaries of the Sutherland Shire Local Government Area (LGA), and is subject to the Sutherland Shire LEP 2006.

3. Methodology

3.1 Aboriginal heritage searches

GHD commissioned Artefact Heritage, an independent expert, to prepare a Heritage Assessment Report. A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 26 February 2015 for an area that included the entire proposal site and some of the surrounding area. The search identified a total of 48 items. The most frequent site feature identified was art sites, followed by areas of potential archaeological deposit.

There were four registered sites located within the search area. These sites are summarised in Table 3.1. The sites are located within the central portion of the landfill area and have all been impacted by landfill activities. Further details are contained in Appendix A.

Table 3.1 Registered AHIMS sites within LHRRP

Site name	AHIMS #	Site feature
Mill Creek 13; Engadine	52-2-1029	Artefact
Mill Creek 12; Engadine	52-2-1030	Artefact
Mill Creek 11; Engadine	52-2-1031	Art (pigment or engraved)
M14; Upper Mill Creek	52-2-1108	Artefact

3.2 Non-Aboriginal heritage searches

A search of the following heritage databases or lists was undertaken on 17 April 2014:

- Register of National Estate (National Heritage List)
- National Trust Register
- State agency Section 170 registers (searched via the State Heritage Inventory)
- State Heritage Register
- Sutherland Local Environmental Plan 2006
- Draft Sutherland Local Environmental Plan.

No heritage items listed under the Register of National Estate, National Trust Register, State Heritage Registers or Section 170 registers were identified on the site or in the surrounding area. Further details are contained in Appendix A.

The SLEP was gazetted on 23 June 2015. A search of the heritage database in the SLEP 2015 was undertaken on 14 July 2015.

A single item listed on the SLEP 2015 is located partly within the north-eastern portion of the study area:

- Item no. 2802 - *Eucalyptus paniculata* (Grey Ironbark)

Some existing vegetation (*Eucalyptus squamosa* and *Eucalyptus paniculata*) is identified on SLEP 2015 as having heritage values. Only a very small part of this item is located within the north-eastern tip of the LHRRP site as shown in brown on Figure 3.1.

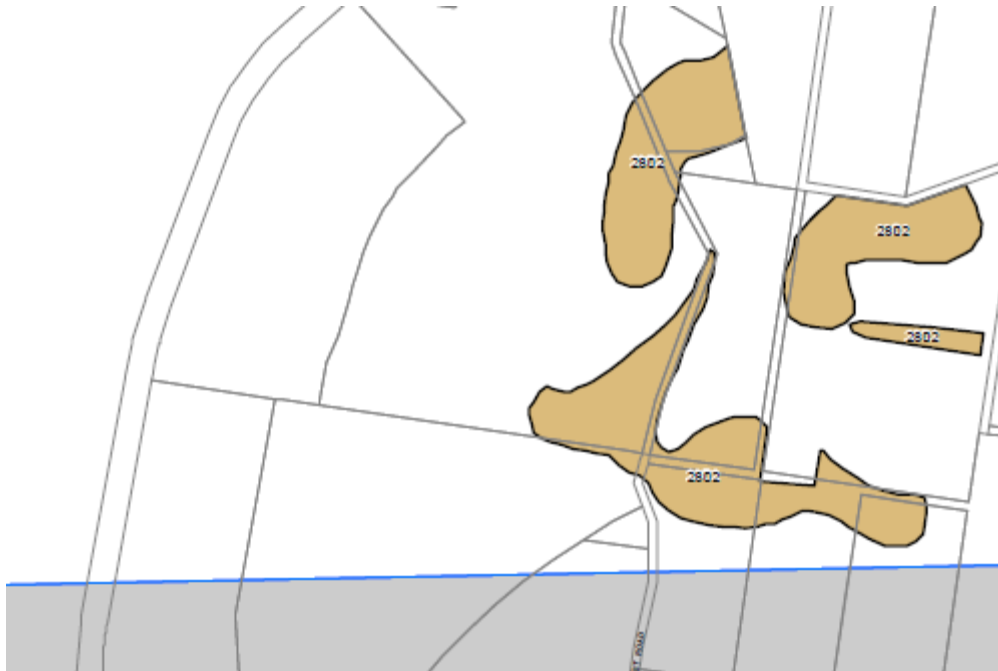


Figure 3.1 Heritage under the SLEP 2015

4. Impact assessment

4.1 Site inspection

GHD commissioned Artefact Heritage, an independent expert, to prepare a Heritage Assessment Report. An inspection of the study area was conducted on foot by Artefact Heritage on 2 March 2015. SITA provided a representative for the inspection. The study area was inspected to determine whether there are Aboriginal objects or non-Aboriginal relics on the surface or beneath the ground surface. The central portion in which the AHIMS registered sites are located and the location for the proposed ARRT and GO facilities were the main focus of the site visit.

AHIMS sites

The AHIMS sites were visited and were found to be within the footprint of the former landfill zone. The entire landscape within this footprint has been completely disturbed and reformed from its present state. The sandstone formations in which the rock shelters at AHIMS sites 52-2-1030, 52-2-1031 and 52-2-1029 are no longer visible and have been destroyed. Likewise the open artefact scatter at 52-2-1108 was destroyed in the construction of the landfill site. It is understood permits were obtained for the destruction of these sites (permit numbers 69,636).

As such there has been a total loss of heritage values for the sites. A Site Impact Recording form would be submitted to OEH for each sites to update their status on the AHIMS.

ARRT facility and GO facility areas

The location for the proposed ARRT facility and GO facility was inspected. This area was originally cleared as part of the original landfill construction and included the redirection of Mill Creek. Artefact (2015) identified that no Aboriginal objects or areas where Aboriginal objects are likely to occur beneath the ground surface were identified within the study area. Similarly no non-Aboriginal heritage items or areas of archaeological potential were identified within the areas inspected.

4.2 Aboriginal heritage values and non-Aboriginal archaeological potential

The preliminary heritage assessment found that there are no known Aboriginal objects within the study area. The proposed impact area has a low archaeological potential. There are no known intangible or cultural Aboriginal heritage values associated with the study area. It has been a landfill site for many years therefore any values are likely to have been previously impacted. It is therefore unlikely that Aboriginal heritage values would be impacted by the proposal.

There is one LEP listed item partially within the study area. The stand of *Eucalyptus Paniculata*, or Grey Ironbark would not be impacted by the proposal as it is outside the proposal footprint. As the site has been used for a landfill for many years, additional visual impacts to the LEP item are unlikely.

The study area has been assessed as having low non-Aboriginal archaeological potential and therefore impacts to relics are unlikely.

5. Mitigation measures

The following mitigation measures are proposed:

- An unexpected finds procedures would be developed and included in the CEMP. This would outline the procedures to follow if unexpected Aboriginal objects or non-Aboriginal relics were uncovered during construction.
- Site Impact Recording Forms for the previously impacts sites, AHMS 52-2-1108, 52-2-1029, 52-2-1030 and 52-2-1031 would be submitted to OEH.

6. Conclusions

A preliminary heritage assessment which addresses Aboriginal and non-Aboriginal heritage and archaeology was undertaken. Results indicate that there are no Aboriginal or non-Aboriginal heritage constraints on the proposal.

A single heritage item, listed on the SLEP 2015, is located partially within the north-east corner of the study area. This item is a stand of *Eucalyptus Paniculata*, or Grey Ironbark. The item is listed as being of local heritage significance. No works have been identified as occurring in this area, and the trees will therefore not be impacted.

This report addresses the SEARs requirements (section 1.6) and concludes that the proposal would meet the following objectives as identified in section 1.2:

- No significant impact on the community or environment
- No impact on Aboriginal cultural heritage values
- No impact on non-Aboriginal heritage items or values

Further investigation may be required if changes are made to the proposal design that may result in impacts to areas that have not been assessed by this study.

7. Limitations

This report: has been prepared by GHD for SITA Australia and may only be used and relied on by SITA Australia for the purpose agreed between GHD and the SITA Australia as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than SITA Australia arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described within this report. GHD disclaims liability arising from any of the assumptions being incorrect.

Appendices

Appendix A - Due Diligence Heritage Assessment for the Lucas Heights Resource Recovery Park



artefact

4 March 2015

David Gamble
GHD
Principal Environmental Engineer
Level 15 133 Castlereagh St,
Sydney, NSW 2000

Dear Mr Gamble,

Re: Due Diligence Heritage Assessment for the Lucas Heights Resource Recovery Precinct.

This letter report has been prepared by Artefact Heritage at your request in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant Development (SSD) at Lucas Heights Resource Recovery Precinct (LHRRP). It outlines the results of a preliminary heritage assessment which addresses Aboriginal and non-Aboriginal heritage and archaeology.

This report was written by Claire Rayner (Archaeologist). Dr Sandra Wallace (Principal Archaeologist) provided management input and reviewed the report.

Background

The objective of the assessment is to meet the requirements of the Secretary's Environmental Assessment Requirements (SEARs). In accordance with the SEARs Artefact Heritage has conducted a heritage assessment in order to document and assess both Aboriginal and non-Aboriginal cultural heritage values and impacts within the study area.

The SEAR's for the Environmental Impact Statement (EIS), relevant to heritage, are as follows:

- Aboriginal Heritage – including tangible and intangible Aboriginal Cultural Heritage Values across the site, and addressing:
 - *The Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW 2011;*
 - *The Aboriginal Cultural Heritage Consultation requirements for proponents 2010;* and
 - The details of conservation measures and measures to avoid or mitigate impacts.
- Heritage – including heritage items and values of the site and surrounding area, taking into account the *NSW Heritage Manual* and *Assessment Heritage Significance Guidelines*.

The study area

The study area includes the area covered by the SSD approval (Figure 1). The study area falls within the boundaries of the Gandangara Local Aboriginal Land Council (GLALC).

Figure 1: Location of the Study area and areas surveyed



The proposal

The proposed works involve the reprofiling of rehabilitated landfill areas, the relocation and expansion of the garden organics facility and the construction and operation of a fully enclosed advanced resource recovery technology facility (ARRT). These activities will mostly impact

previously disturbed areas within the LHRRP area and involve the construction of new buildings and earthworks.

Figure 2: Key proposed infrastructure at the LHRRP

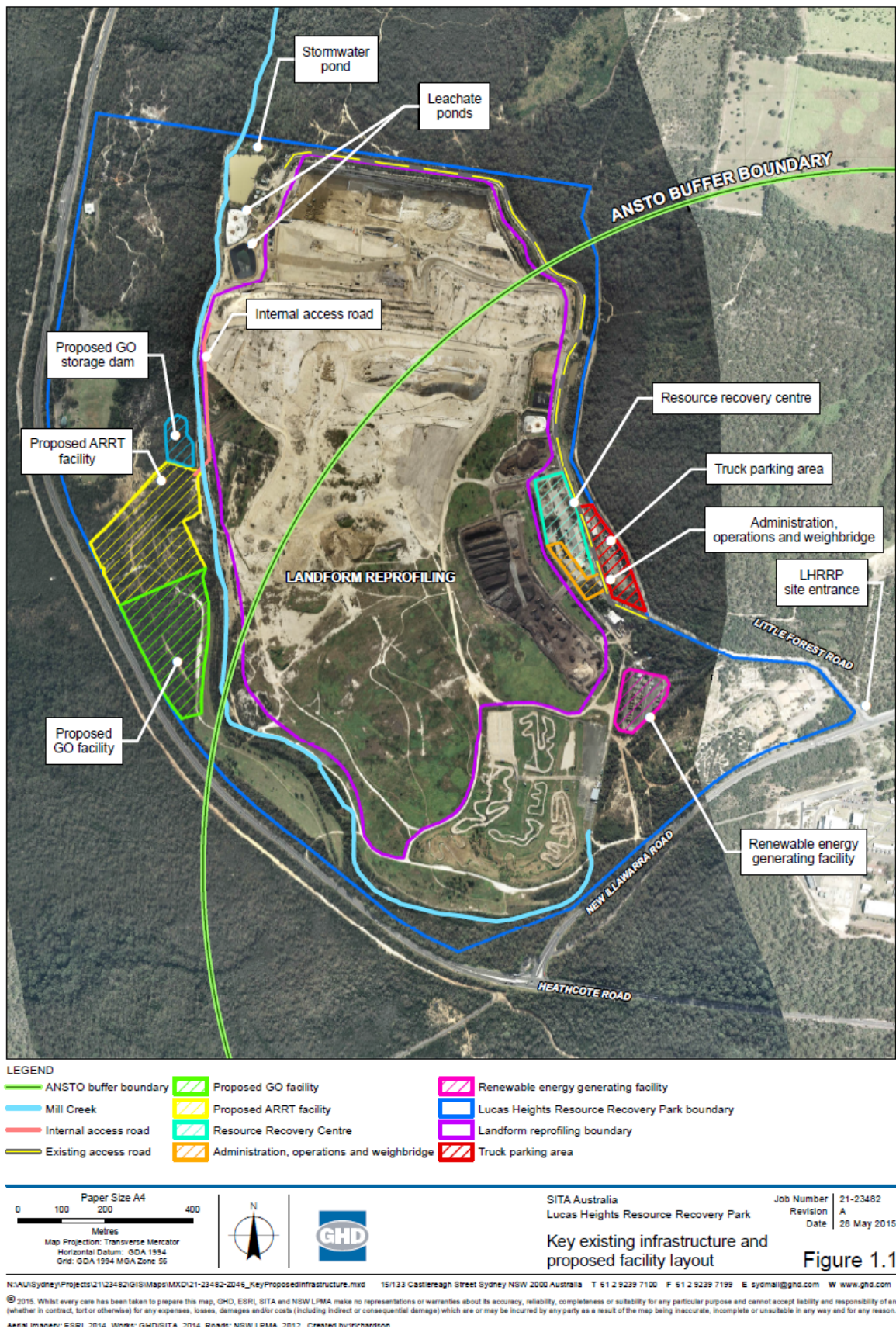
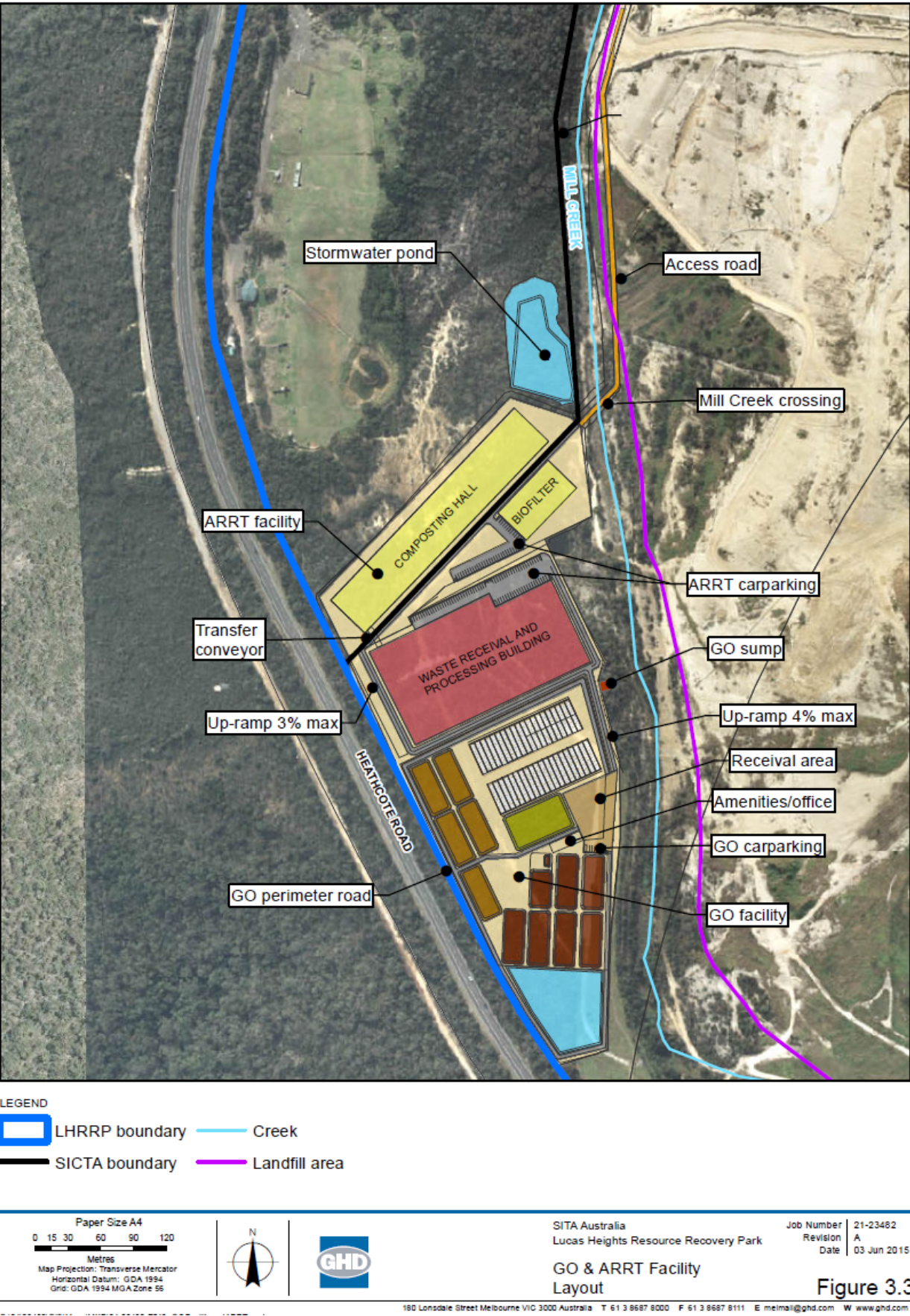


Figure 3: Proposed ARRT and Garden Organics



Legislative Context

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

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

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

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

Heritage Act (1977)

The Heritage Act is the primary piece of State legislation affording protection to heritage items (natural and cultural) in NSW. Under the Heritage 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. State significant items are listed on the NSW State Heritage Register (SHR) and are given automatic protection under the Heritage Act against any activities that may damage an item or affect its heritage significance. The Heritage Act also protects 'relics', which can include archaeological material, features and deposits.

The proposal has been deemed SSD by the NSW Department of Planning and Infrastructure and as such, approval is not required from the NSW Heritage Division to impact historic archaeological remains or SHR listed items, providing the requirements of the SEARs are met.

Environmental Planning and Assessment Act (1979)

The *Environmental Planning and Assessment Act 1979* (EP&A Act) is administered by the NSW Department of Planning and Infrastructure, and provides planning controls and requirements for environmental assessment in the development approval process. This Act has three main parts of direct relevance to Aboriginal cultural heritage. Namely, Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment process for local government (consent) authorities and Part 5 which relates to activity approvals by governing (determining) authorities.

Part 4, Division 4.1 of the EP&A Act established an approval regime for development that is declared to be State significant development by either a State Environmental Planning Policy (SEPP) or Ministerial Order. In accordance with Section 89E of the EP&A Act, the Minister is the consent authority for State significant development. An environmental impact statement (EIS) is required to support a development application for State significant development.

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A 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 EP&A Act also requires that local governments prepare planning instruments (such as Local Environmental Plans (LEPs) and

Development Control Plans) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required. The current investigation area falls within the boundaries of the Sutherland Shire Local Government Area (LGA), and is subject to the Sutherland Shire LEP 2006.

Heritage Register Searches

Heritage register searches conducted for this project included a search of the OEH Aboriginal Heritage Information Management System (AHIMS) to identify whether any recorded Aboriginal sites are located within or in close proximity to the proposed shared path alignment.

Statutory register searches were also undertaken to identify whether listed heritage items are located within or in close proximity to the study area. Statutory registers provide legal protection for heritage items. In NSW, the Heritage Act and the EP&A Act give legal protection. The SHR, the s170 registers, and heritage schedules of LEPs are statutory listings. Places on the National Heritage List are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Aboriginal Heritage Information Management System site register search

The AHIMS search provides archaeological context for the area and helps ascertain whether any previously recorded Aboriginal sites are located within or near the study area. An extensive search of the OEH Aboriginal Heritage Information Management System (AHIMS) site register was originally requested by GHD on 8 April 2014 with the following parameters:

GDA 1994 GDA 1994	Latitude	-34.064 - -34.0316
	Longitude	150.9399 – 150.9913
Number of sites		48
AHIMS Search ID		131103

Artefact Heritage conducted another AHIMS site register search on the 26 February 2015 to ensure the most up to date data available was used for this study. The same parameters as the original search were used and the same number of sites were retrieved (AHIMS search ID 163992). The search results are summarised in Table 1 and **Figure 4**.

Table 1: Results of the AHIMS extensive search (ID163992)

Site Feature	Number of Site	Percentage (%)
PAD	15	31
Art (pigment or engraved)	11	23
Grinding groove	6	12
Artefact	3	6
Art (Pigment or Engraved), artefact, PAD	3	6
Art (Pigment or Engraved), PAD	3	6
Artefact, grinding groove	1	2

Site Feature	Number of Site	Percentage (%)
Art (pigment or engraved), artefact	1	2
Art (Pigment or Engraved). Artefact, shell	1	2
Art (Pigment or Engraved), artefact, stone arrangement	1	2
Art (Pigment or Engraved), grinding groove	1	2
Art (Pigment or Engraved), grinding groove, waterhole	1	2
Stone arrangement	1	2

The most frequent site feature within the search area is art sites (n=22, 46%). Half of these sites occur with art recorded as the only feature (n=11) whilst the other half are recorded in association with potential archaeological deposit (PAD n=3, 14%), PAD and artefacts (n= 3, 14%), artefacts (n=1, 4%), artefacts and a midden (n=1, 4%), artefacts and a stone arrangement (n=1, 4%), grinding grooves (n=1, 4%) and grinding grooves and a waterhole (n=1, 4%). Where the location of the art is recorded, it is generally recorded within in rock shelters (n=11, 50%).

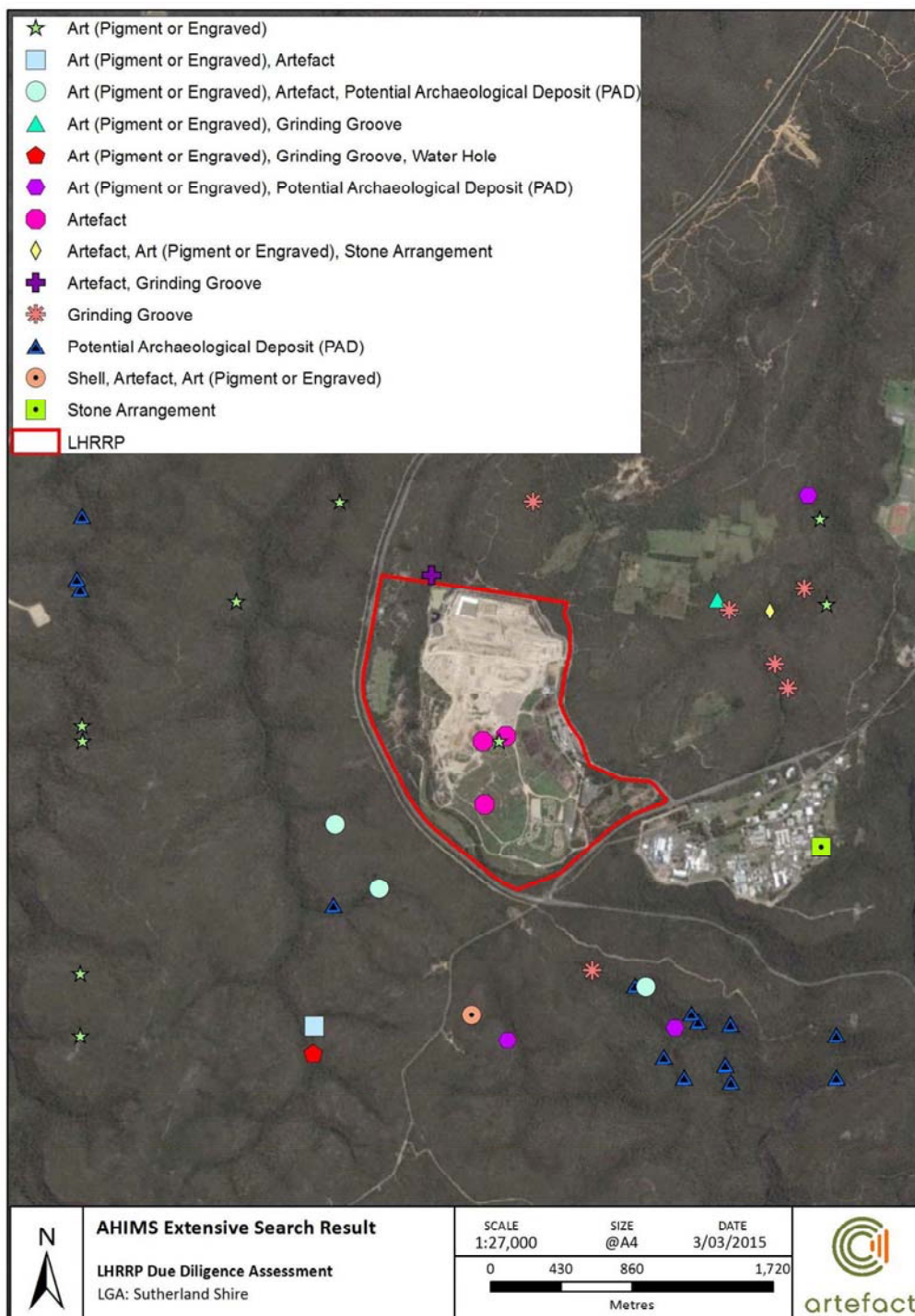
Areas of potential archaeological deposit (PAD) are next most frequent site feature category (n=21, 44%). The majority of these are recorded as the only site feature (n= 15, 71%). There are six (12%) sites recorded as grinding grooves in the AHIMS extensive search area, three (6%) sites recorded as artefacts, and one (2%) stone arrangement.

There are four registered sites located within the study area. These sites are summarised in Table 2. The sites are located within the central portion of the landfill area and have all been impacted by landfill activities.

Table 2: Registered AHIMS sites within LHRRP

Site Name	AHIMS #	Site Feature
Mill Creek 13; Engadine	52-2-1029	Artefact
Mill Creek 12; Engadine	52-2-1030	Artefact
Mill Creek 11; Engadine	52-2-1031	Art (pigment or engraved)
M14; Upper Mill Creek	52-2-1108	Artefact

Figure 4: AHIMS search results



Register of the National Estate

The Register of the National Estate is a list of natural, Aboriginal 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, and ceased to be a statutory register in

February 2012. The RNE is now maintained on a non-statutory basis as a publicly available archive and educational resource.

On 1 January 2004, a new national heritage system was established under the 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.

There are no items within the investigation area listed on the Register of the National Estate.

National Heritage List

On 1st January 2004, a new national heritage system was established under the 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.

There are no items within the investigation area listed on the National Heritage List.

The National Trust of Australia

The National Trusts of Australia are community-based, non-government organisations, committed to promoting and conserving Australia's Aboriginal, natural and historic heritage through advocacy work and custodianship of heritage places and objects. The Trust acts as custodian and manages over 300 heritage places.

There are no items within the investigation area listed on the National Trust Register.

Section 170 Registers

Section 170 of the Heritage Act requires government agencies to keep a register of heritage items. An s170 register is a record of the heritage assets owned or managed by a NSW government agency.

No s170 register items are located in the vicinity of the investigation area.

The State Heritage Register

The SHR is a list of places and objects of particular importance to the people of NSW and is administered by the Heritage Division of the OEH. 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.

No items in the vicinity of the investigation area are listed on the SHR.

Sutherland LEP 2006

The LEP includes a list of items/sites of heritage significance within the Sutherland LGA. A single item listed on the LEP is located partly within the north-eastern portion of the study area.

- Item no. T5 – *Eucalyptus Paniculata* (Grey Ironbark).

Figure 5: Item T5 is partially within the study area (shaded in red). Source: Sutherland LEP 2006, Plan 7, with Artefact annotations.



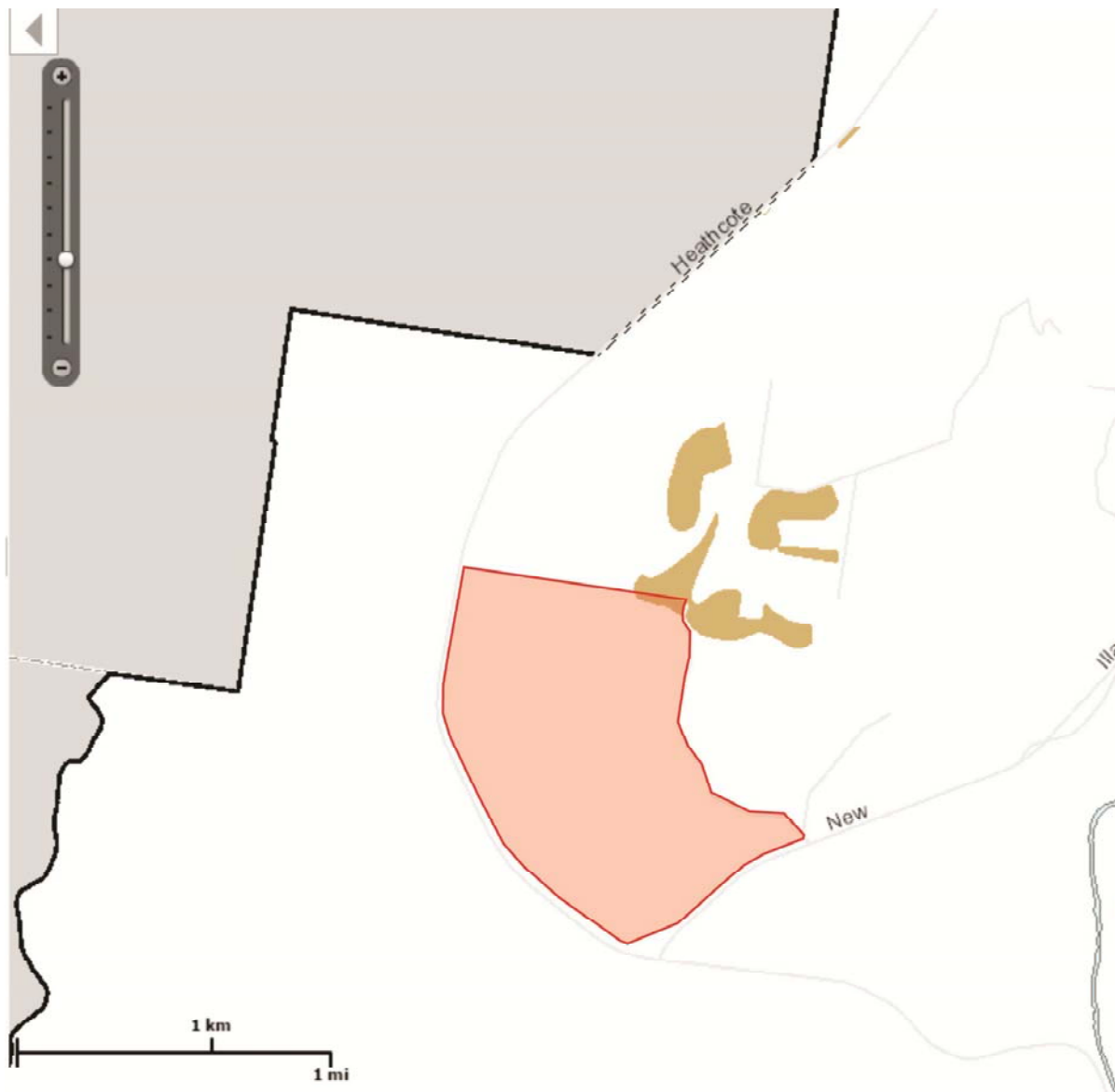
Sutherland Draft LEP 2012

The LEP includes a list of items/sites of heritage significance within the Sutherland LGA. This register is yet to be gazetted. A single item listed on the LEP is located partly within the north-eastern portion of the study area.

- Item no. 2802 – *Eucalyptus Paniculata* (Grey Ironbark).

This is the same item listed on the 2006 LEP, although the curtilage has been expanded to the north and west (Figure 6). No inventory sheet for the heritage item was available, however, it is listed as being of local significance.

Figure 6: Item 2802 (brown shading) is partially within the study area (shaded in red). Source: Sutherland LEP 2006, Plan 7, with Artefact annotations.



Environmental Context

The study area is located within the Woronora Plateau; which consists of elevated Hawkesbury Sandstone geology with deeply incised watercourses. The Hawkesbury Sandstone geological unit is described as medium to coarse grain quartz sandstone with minor spatially constricted lenses of shale and laminate (Clarke and Jones 1991). Hawkesbury sandstone is very susceptible to weathering processes (Huntley et al 2011, p 86). The homogenous nature of Hawkesbury sandstone country has been noted for its suitability for rock art production (Huntley et al 2011, p 86).

The study area is located atop a broad, relatively flat ridge. The area surrounding the study area is typified by the large number of rivers and creeks running through the plateau. The study area is located 3 km west of the Woronora River and 1.4 km east of Deadman's Creek. Other major watercourses nearby are the Georges River lying 6.6 km to the west and Woronora Lake located 8 km south of the study area.

Aboriginal Historical Context

Aboriginal people traditionally lived in small family or clan groups that were associated with particular territories or places. The language spoken in the region of the study area is thought to have been Dharawal. The Dharawal language group was largely coastal and extended from the Shoalhaven River in the south, to Botany Bay in the north and inland to the Georges River (Attenbrow 2010, p 34). The study area is likely to have been located close to the boundaries of the Dharawal language group with the neighbouring Darug and Gundungurra language groups. The hinterland and coastal dialects of the Darug language group covered an area stretching from the northern side of Botany Bay, west of the Georges River and across the western Sydney Cumberland Plain (Attenbrow 2010, p 34). The Gundungurra language group covered parts of the south-western Sydney area and the Blue Mountains.

The area covered by the Dharawal language included a variety of landscape and resource types. Coastal and estuarine environments bordered by rolling hills and creeks and the large sandstone escarpment and plateau characterise this landscape. Movement across these different terrain types and resource areas may have been dictated by the season or cultural purposes (Department of Environment and Conservation 2005: 8). Economic relationships would have existed between the Dharawal, Gundungarra and Wiradjuri people travelling to the coast. The Dharawal also shared ceremonies with the Awabakal people travelling south from the Central Coast region (Department of Environment and Conservation 2005, p 8).

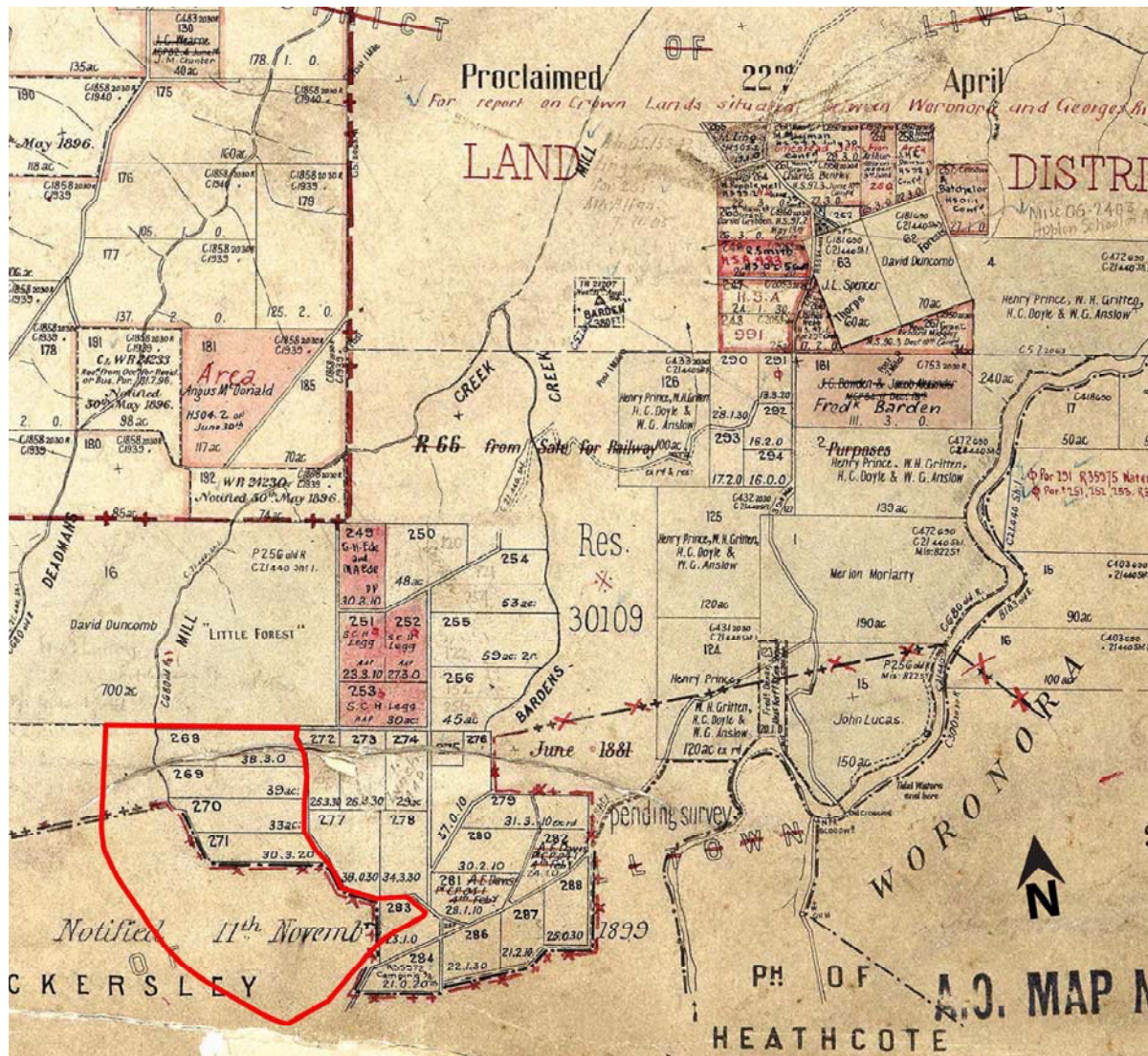
British colonisation had a profound effect on the Aboriginal population of the Sydney region. In the early days of the colony Aboriginal people were disenfranchised from their land as the British claimed areas for settlement and agriculture. The colonists, often at the expense of the local Aboriginal groups, also claimed resources such as pasture, timber, fishing grounds and water sources. It is thought that during the 1789 smallpox epidemic over half of the Aboriginal people of the Sydney region died. However, despite efforts to move Aboriginal people away from this area, documentation indicates Aboriginal people were still visiting sites within the area in the 1830s (AHPI 2014, Online).

Non-Aboriginal Historical Context

The suburb of Lucas Heights was named for John Lucas, a carpenter and mill wright who established the first mills in the Holsworthy Parish (Forbes & Jackson 2015). Lucas built his first flour mill at Harris Creek to the north of the study area in 1822. The second mill was established near the Woronora River to the east of the study area in 1825. From these mills Lucas sold a variety of products including flour, sugar, cloth, files, nails and rum among other goods (Forbes & Jackson 2015). However, owing to a succession of droughts throughout the 1820's, the failure of the Woronora Dam and increased pressure from steam mills Lucas was declared bankrupt and his milling operations ceased in 1832 (Forbes & Jackson 2015).

The land on which the study area is located borders a 700 acre grant known as "Little Forest" granted to David Duncomb in 1831 to the north (The Australian Friday 23rd September 1831, see). It has been proposed that Little Forest would have provided a local source of wheat for the Lucas mill on the Woronora River. However, the steep terrain between the two locations causes some doubt about the relationship (Dictionary of Sydney 2015). Little Forest was acquired by the Barden brothers in 1889 and used for cattle grazing and timber felling (Menai Wildflower Group 2003). The first nuclear reactor in Australia was constructed adjacent to the study area in 1957 (Menai Wildflower Group 2003). The current Lucas Heights Resource Recovery Park was established in 1987 and has been used as a waste disposal site since that time (SSD PEA 2014).

Figure 7: location of study area (shown in red) in relation to “Little Forest” and the Lucas Mill on the Woronora River.



Land use history

Although the study area was likely utilised for its timber resource, and unlikely to have been substantially modified throughout the 19th and the majority of the 20th century, the use of the site as the Lucas Heights Resource Recovery Precinct from 1987 would suggest that the area has been substantially modified. Figure 8 indicates that the majority of the study area is denuded of vegetation and appears to have been cut down, or heavily truncated.

Figure 8: Extent of landfill activities in 2004



Results of Site Inspection

An inspection of the study area was conducted on foot by archaeologist Claire Rayner on 2 March 2015. SITA Australia Pty Ltd provided a representative (Kim Ross) for the inspection. The study area was inspected on foot to determine whether there are Aboriginal objects or non-Aboriginal relics on

the surface or if there are likely to be Aboriginal objects or non-Aboriginal relics beneath the ground surface. The central portion in which the AHIMS registered sites are located and the location for the proposed ARRT and Garden Organics facilities were the main focus of the site visit.

The central area of the LHRRP has previously been used as an area of landfill since the early 1990s. The earliest available satellite imagery for the area in 2004 shows the extent of disturbance in Figure 8. In the last few years the area has been capped and is in the process of rehabilitation (Figure 9). Kim Ross commented that this area of landfill is approximately 20-30 metres deep with some areas reaching to 40 metres below ground surface level. Photos were taken of the active landfill area to illustrate the massive disturbance involved in the operation (see Figure 10).

The MGA 1994 zone 56 coordinates of the AHIMS sites were visited and were found to be within the footprint of the former landfill zone. The entire landscape within this footprint has been completely disturbed and reformed to its present state. The sandstone formations in which the rock shelters at AHIMS sites 52-2-1030, 52-2-1031 and 52-2-1029 are no longer visible and have been destroyed (see Figure 9 and Figure 11). Likewise the open artefact scatter at 52-2-1108 was destroyed in the construction of the landfill site (Figure 13). It is understood permits were obtained for the destruction of these sites. Permit numbers have been identified (69,636) but copies of the permits have not been located.

As such there has been a total loss of heritage values for the sites and a Site Impact Recording form should be submitted to OEH for each of the sites to update their status on AHIMS.

The second area to be inspected was the location of the proposed ARRT and Garden Organics facilities. This area was originally cleared as part of the original landfill construction and included the redirection of Mills Creek. The area is characterised as gently sloping and has become revegetated over time. Visibility was generally high (80%) in areas of exposure such as vehicle tracks and lightly vegetated areas (see Figure 15). Visibility decreased in densely vegetated areas due to large amounts of leaf litter (Figure 16).

No Aboriginal objects or areas where Aboriginal objects are likely to occur beneath the ground surface were identified within the study area. Similarly no non-Aboriginal heritage items or areas of archaeological potential were identified within the areas inspected.

Figure 9: Rehabilitated area at GPD coordinates for AHIMS #52-2-1029



Figure 10: Active landfill area to the west of AHIMS site #52-2-1030



Figure 11: Area where AHIMS 52-2-1030 was originally recorded



Figure 12: Area where AHIMS 52-1031 was originally recorded



Figure 13: Area where AHIMS 52-2-1108 was originally recorded



Figure 14: View south along track with high visibility



Figure 15: Areas of high exposure



Figure 16: Dense leaf litter



Archaeological potential

As the study area is likely to have been utilised for its timber resource, and either used for the growing of large-scale food crops or the grazing of livestock, throughout much of the historical period, it is unlikely that the study area contained structures. Site inspection and modern land-use history also suggests that the study area has been truncated, and it is therefore highly unlikely that any archaeological relics would survive. The study area, therefore, does not have historical archaeological potential.

The majority of the study area has low/no Aboriginal archaeological potential. High levels of ground disturbance would have impacted any Aboriginal sites which may have existed in the study area. There is some potential that Aboriginal sites may be located in the far north-eastern corner of the study area within the LEP listed bushland. This area would not be impacted by the proposal.

Impact Assessment

This study has found that there are no known Aboriginal objects within the study area. The proposed impact area has a low archaeological potential. There are no known intangible or cultural Aboriginal heritage values associated with the study area. It has been a landfill site for many years therefore any values are likely to have been previously impacted. It is therefore unlikely that Aboriginal heritage values will be impacted by the proposal.

This study has found that there is one LEP listed item partially within the study area. The stand of *Eucalyptus Paniculata*, or Grey Ironbark would not be impacted by the proposal. As the site has been used for a landfill for many years additional visual impacts to the LEP item are unlikely.

The study area has been assessed as having a low non-Aboriginal archaeological potential therefore impacts to relics are unlikely.

Discussion

This study has found that impacts to Aboriginal and non-Aboriginal heritage and archaeology is unlikely as a result of the LHRRP. Comments on how the SEARs have been met is provided below.

SEARs	Comment
Aboriginal Heritage – including tangible and intangible Aboriginal Cultural Heritage Values across the site	The four Aboriginal sites registered within the study area were found to have been previously impacted. There have been high levels of ground surface disturbance and modification which have resulted in a low Aboriginal archaeological potential for the proposed impact area.
The <i>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW 2011</i>	As no Aboriginal values were identified by this assessment adherence to the full requirements of the <i>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW 2011</i> was not required.

SEARs	Comment
<i>The Aboriginal Cultural Heritage Consultation requirements for proponents 2010</i>	As no Aboriginal values were identified by this assessment adherence to the full requirements of the <i>Aboriginal Cultural Heritage Consultation requirements for proponents 2010</i> was not required.
The details of conservation measures and measures to avoid or mitigate impacts	No impacts are proposed therefore no conservation measures are required.
Heritage – including heritage items and values of the site and surrounding area, taking into account the <i>NSW Heritage Manual</i> and <i>Assessment Heritage Significance Guidelines</i> .	Heritage listings were identified. There will be no impacts to listed or unlisted non-Aboriginal heritage items or areas of archaeological potential.

Conclusions and Recommendations

- There are no Aboriginal or non-Aboriginal heritage constraints on the proposed development.
- It is recommended that an unexpected finds procedure is developed and included in the LHRRP CEMP. This should outline the procedure to follow if unexpected Aboriginal objects or non-Aboriginal relics were uncovered during construction.
- Site Impact Recording Forms for the previously impacted sites, AHMS 52-2-1108, 52-2-1029, 52-2-1030, and 52-2-1031, should be submitted to OEH.
- A single heritage item, listed on the Sutherland LEP 2006 and Sutherland Draft LEP 2012, is located partially within the north-east corner of the study area. This item is a stand of *Eucalyptus Paniculata*, or Grey Ironbark. The item is listed as being of local heritage significance. No works have been identified as occurring in this area, and the trees will therefore not be impacted.
- If changes are made to the proposal design that may result in impacts to areas not assessed by this study further investigation may be required.

Kind Regards,



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0422 130 614

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