11 Warren Road, Warnervale

Aboriginal Cultural Heritage Assessment Report (ACHAR)

Report to Woolworths Groups

FINAL (For PUBLIC viewing)

April 2022

artefact

Artefact Heritage
ABN 73 144 973 526
Suite 56, Jones Bay Wharf
26-32 Pirrama Road
Pyrmont NSW 2009
Australia

+61 2 9518 8411
office@artefact.net.au

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EXECUTIVE SUMMARY

Background

Artefact Heritage has been engaged to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for Woolworths Group (the proponent) who proposes the redevelopment of its existing site at 11 Warren Road, Warnervale. The proposal comprises alterations and additions to the existing warehouse and distribution centre development including expansion of the existing building envelopes and hardstand areas.

This ACHAR will address the requirements of the Secretary's Environmental Assessment Requirements (SEARs) issued to the proponent on the 21 December 2021 (SSD-33701741). This ACHAR is a requirement of the State Significant Development award, submitted by Woolworths Group to the NSW Department of Planning, Industry and Environment (DPIE).

The DPIE "Rapid Assessment Framework guidelines' commenced operation on 1 October 2021. The Environmental Impact Statement (EIS) for the Warnervale Warehouse and Distribution Centre requires preparation in accordance with this new framework.

Overview of findings

The following results and recommendations are based on consideration of:

- the requirements of Aboriginal heritage guidelines including:
  - *The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a) – known as *The Code of Practice*
  - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
  - *The Aboriginal Cultural Heritage consultation requirements for proponents 2010* (OEH 2010b)- known as Consultation Guidelines)
- the Project SEARs
- the results of the stakeholder consultation
- extensive search of the AHIMS database
- in depth background research and assessment following an archaeological survey.

The assessment found that:

- no sites listed on the Aboriginal Heritage Information Management System (AHIMS) were discovered in the study area
- no previously unrecorded Aboriginal sites or objects were identified within the study area during the site inspection
- the study area was heavily disturbed by earthworks to provide for the construction of a warehouse facility and associated infrastructure including truck and carparks, landscaping and the introduction of an artificial swamp to manage drainage

- examination of the historical images show that the site was heavily disturbed during the construction of the current facility
- the study area was assessed as having nil to low potential to retain intact archaeological deposits that may contain Aboriginal objects
- a tree located in the north-west corner of the study area was identified as being a valuable resource for Aboriginal people and so holds cultural significance for the Darkinjung LALC.
- consultation with RAPS did not reveal particular socio/cultural, historic, or aesthetic heritage values relating to the study area.
- one RAP commented on the significant history of impact in the area.
- as there are no archaeological values in the site, there is no scientific significance.

Recommendations

Based on the results of this assessment and in accordance with Aboriginal heritage guidelines mandated in the SEARs for the proposal, the following recommendations are made:

- As the study area was found to be disturbed and to have a nil-low potential for Aboriginal objects to be located within it, it is recommended that further archaeological assessment is not required.
- The tree identified as a cultural resource will not be impacted by the proposal.
- The result of the consultation supports the archaeological assessment of the study area as holding nil-low potential for the preservation of Aboriginal heritage.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Darkinjung LALC must be notified.
- If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured, and the NSW Police and Heritage NSW should be notified.

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1.0 INTRODUCTION

1.1 Project background

Artefact Heritage has been engaged to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for Woolworths Group (the proponent) who proposes the redevelopment of its existing site at 11 Warren Road, Warnervale. The proposal comprises alterations and additions to the existing warehouse and distribution centre development including expansion of the existing building envelopes and hardstand areas.

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1.2 Location

The study area (23.16 ha) is located at 11 Warren Road, Warnervale, Lot 413 DP 1058215 (Figure 1). It is in the Central Coast Local Government Area (LGA) and within the County of Northumberland. It is lies within the boundary of Darkinjung Local Aboriginal Land Council.

Figure 1: Study Area

Document Path: D:\GIS\GIS_Mapping\21208 Warren Road\MXD\Study Area.mxd

1.3 Overview of the project

The project comprises alterations and additions to the existing warehouse and distribution centre (Figure 2, Figure 3 and Figure 4) including expansion of the existing building envelopes and hardstand areas.

1.3.1 Detailed Description

Proposed alterations and additions of the existing warehouse or distribution centre building include:

- 7,038m^2 extension of the existing temperature controlled warehouse (including new exhaust fans)
- 14,190m^2 extension of the ambient warehouse including B-double drive-through
- 4,215m^2 extension of the Return Transfer Facility warehouse including B-double drive-through
- Expansion of the confectionary storage floorspace
- 13 new banana ripening rooms
- Refurbishment of the existing canteen, locker rooms and amenities

Expansion of the existing hardstand areas to accommodate a truck wash and maintenance facility and refuel station, with two new weigh bridges and total on-site parking provided as follows. In Figure 5 the areas of expansion are indicated by grey areas for building extension and dark grey for hardstand extension. The proposed extensions will push the envelope of the current working areas out towards the study area boundary on all sides to facilitate the following:

- 485 car parking spaces (existing)
- 98 pan-tech parking spaces, including 48 new spaces
- 17 existing truck parking spaces, including five new spaces
- Site services infrastructure including relocation of existing fire tank and pumphouse.
- Vehicle access will continue to be provided via Warren Road with provision for additional entry/exit movements via the existing driveway to Woolworths Way

Figure 2. Existing building (northern end)

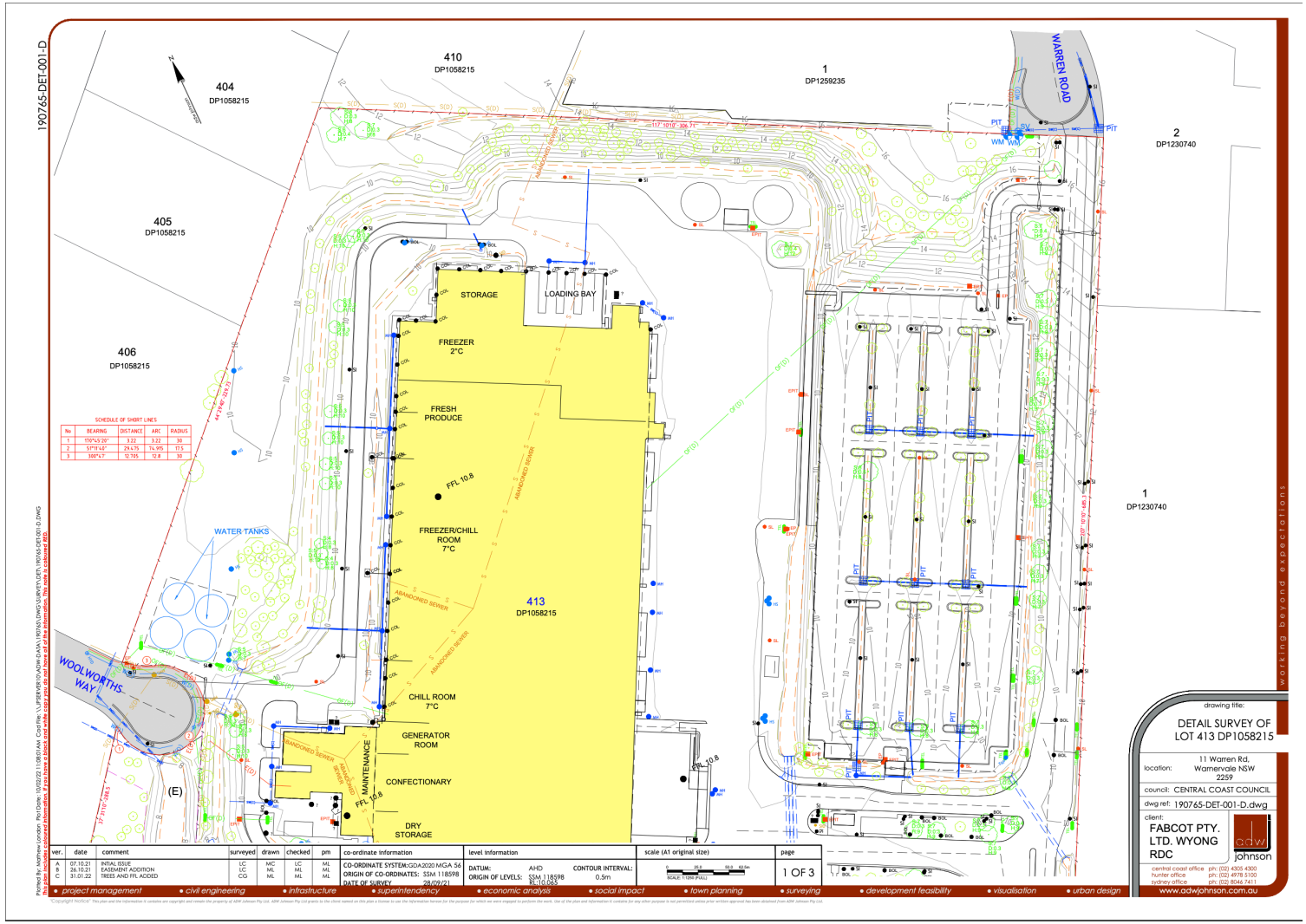


Figure 3. Existing building (central section)

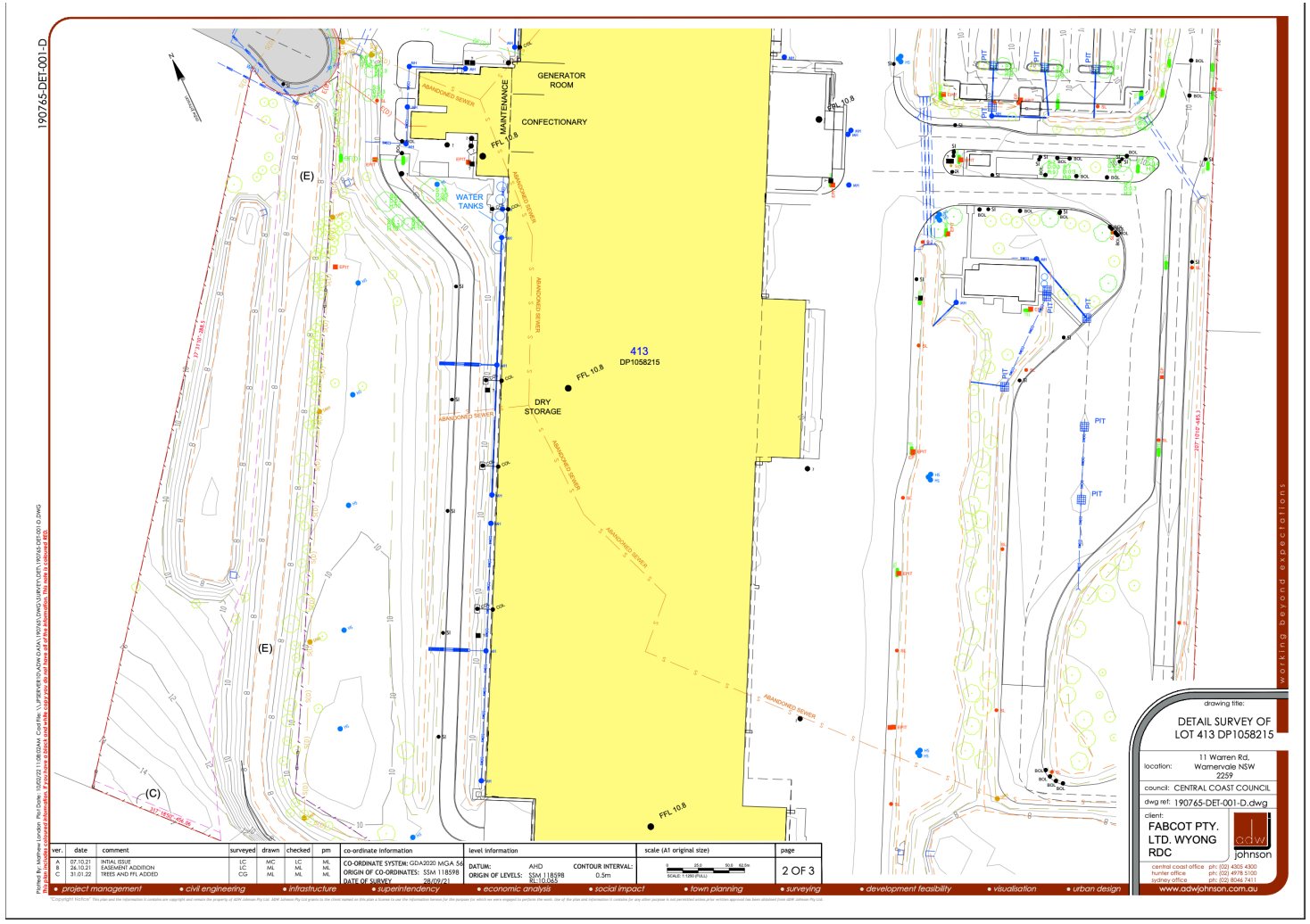


Figure 4. Existing building (southern end)

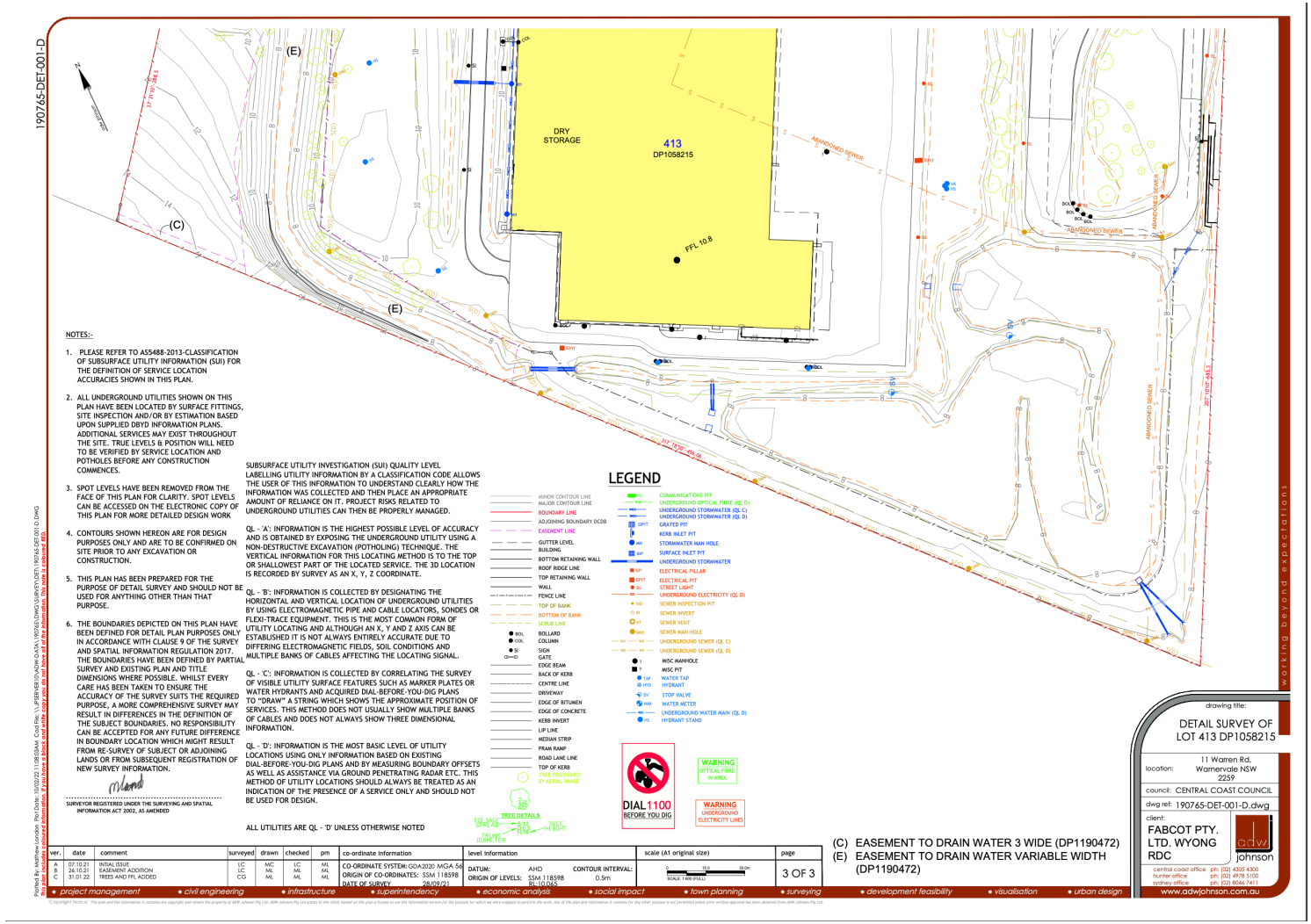
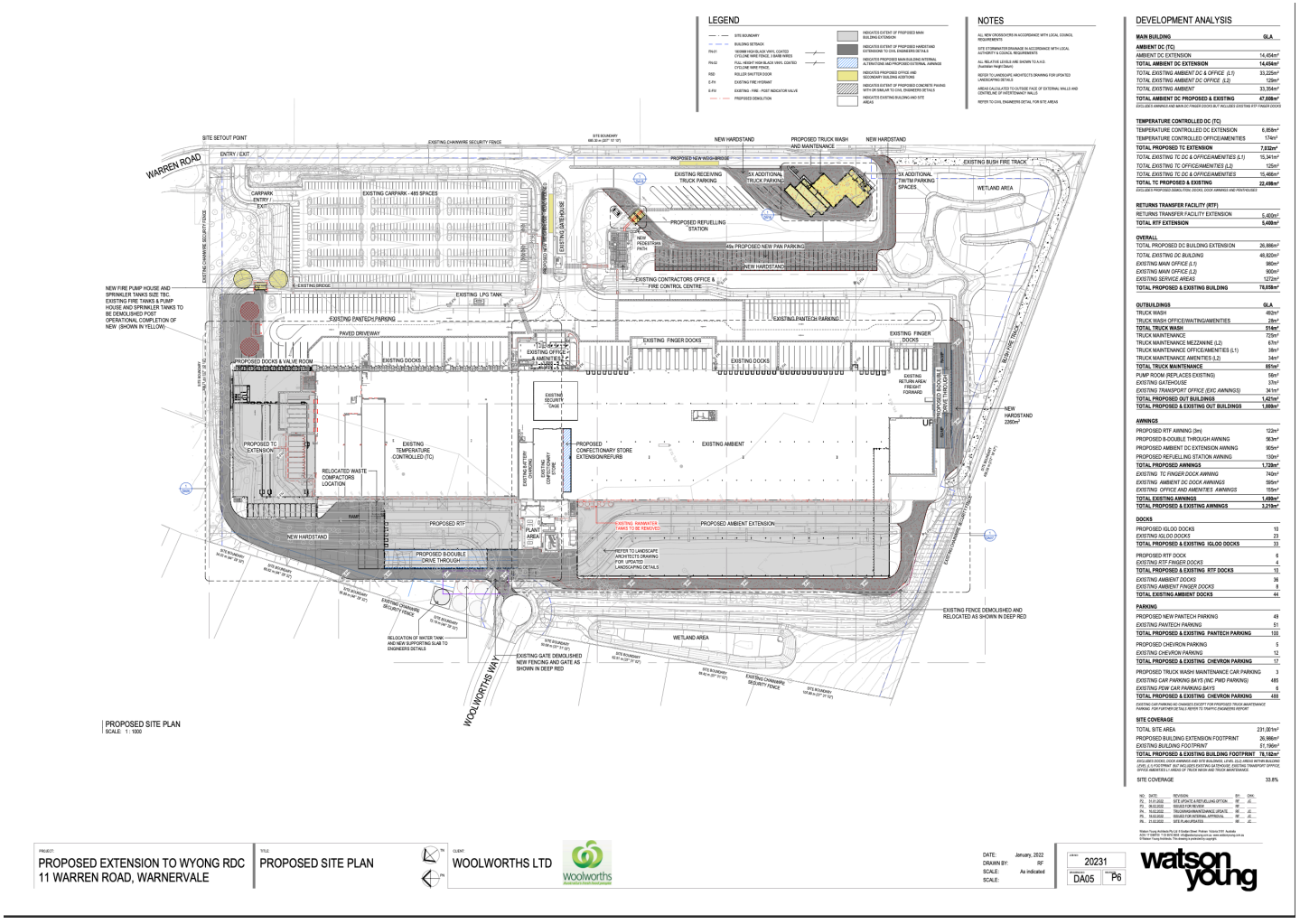


Figure 5. Plan of proposed extension to the current facility. Grey areas indicate extension of the current facility; dark grey indicates extension to hardstand areas.



1.4 Purpose and scope of the report

Artefact Heritage has been engaged to prepare an ACHAR to meet the requirements of the SEARs. This report considers the impacts the proposed construction might have on Aboriginal cultural heritage and the potential archaeological resources within the study area. The report includes:

- Assessment of the Aboriginal cultural heritage values of the study area and identification of any specific areas of cultural significance
- Assessment of archaeological potential for the study area
- Aboriginal stakeholder consultation
- Preparation of a methodology for archaeological management including test excavation and salvage where required.

This ACHAR has been undertaken in accordance with the following guidelines:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010 (DECCW 2010a)
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010b).

1.5 Secretary's Environmental Assessment Requirements

1.5.1 State Significant Developments.

The SEARs were issued by the DPIE on 21 December 2021 (SSD-33701741) and SEAR number 18 requires an ACHAR be prepared as part of the EIS documentation. Table 1, outlines the specific requirements.

Table 1. Secretary's Environmental Requirements

Item	Secretary's Environmental Assessment Requirements	Where addressed in this report
1	Identify and describe the cultural heritage values of the site	Sections 5,6 and 7
2	Assess any impacts for any Aboriginal cultural heritage values on the site	Sections 8 and 9
3	Prepare an ACHAR in accordance with relevant guidelines.	This document

1.6 Authorship

This ACHAR has been prepared by Elizabeth Bonshek (Senior Heritage Consultant, Artefact Heritage) with review and management provided by Sandra Wallace (Director, Artefact Heritage).

2.0 LEGISLATIVE CONTEXT

2.1 Introduction

There are several pieces of legislation that are relevant to the assessment of Aboriginal cultural heritage for the proposal. This chapter provides a summary of these Acts and the potential implications for the proposal.

2.2 NSW *National Parks and Wildlife Act 1974*

The *National Parks and Wildlife Act 1974* (NPW Act) provides statutory protection to all Aboriginal places and objects. An Aboriginal Place is declared by the Minister, under Section 84 of the NPW Act in recognition of its special significance with respect to Aboriginal culture. Under Section 86 of the NPW Act objects are places are protected. An Aboriginal object is defined as:

> *any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.*

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.

If it is assessed that sites exist or there is a likelihood of existing within the activity area and maybe impacted by the proposed activity, further archaeological investigations may be required. The SSD requirements state that attempts to avoid damage must be made. Where damage is unavoidable the ACHAR and EIS must outline mitigation measures.

As the project is being assessed as SSD under Part 4 Division 4.7 of the Environmental Planning & Assessment Act 1979, permits issued under the NPW Act are not required for works undertaken in accordance with the SSD Conditions of Approval issued by DPIE.

All Aboriginal objects, whether recorded or not, are protected under the NPW Act.

2.2.1 National Parks and Wildlife Regulation 2019

Under the authority of the NPW Act, the National Parks and Wildlife Regulation 2019 provides regulations for Aboriginal heritage assessment and consultation with registered Aboriginal parties.

Part 5 (Division 2) of the National Parks and Wildlife Regulation sets out the requirements of a due diligence assessment process and provides requirements for more detailed assessment and consultation with registered Aboriginal parties for activities that may result in harm to Aboriginal objects. This includes:

- Clause 60 – consultation process to be carried out before application for Aboriginal Heritage Impact Permit (AHIP)
- Clause 61 – application for AHIP to be accompanied by cultural heritage assessment report.

In order to comply with Clause 60 and 61 of the National Parks and Wildlife Regulation 2019, preparation of an ACHAR and consultation with RAPs must be in accordance with the following guidelines:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010 (DECCW 2010a)
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010b).

The current assessment has been carried out in accordance with the above guidelines in order to meet the SEARs which refer to them.

2.3 NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning & Assessment Act 1979* (EP&A Act) provides planning controls and requirements for environmental assessment in the development approval process. The EP&A Act consists of three main parts of direct relevance to Aboriginal cultural heritage: Part 3 which governs the preparation of planning instruments; Part 4 which relates to development requiring consent; and Part 5 which relates to activity that does not require consent.

The project is subject to assessment and approval by the NSW Minister for Planning under Part 4 Section Division 4.7 of the EP&A Act, which establishes an assessment and approval regime for SSD.

An EIS supported by the current assessment has been prepared to assess the impacts of the proposal, in accordance with SEARs.

Section 4.12(8) of the EP&A Act provides that environmental planning instruments (such as local environmental plans and SEPPs) do not, with some exceptions, apply to SSD projects. Notwithstanding, the environmental planning instruments that are relevant to the proposal have been considered for consistency, as described below.

2.3.1 Wyong Local Environmental Plan (LEP)

LEPs are prepared by councils in accordance with the EP&A Act to guide planning divisions for LGAs. Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items listed within its schedule and which are protected under the EP&A Act and the Heritage Act 1977.

The study area falls within the Wyong Local Environmental Plan (WLEP 2013) which under section 2. (f) seeks to “to conserve, protect and enhance the environmental and cultural heritage (both indigenous and non-indigenous) values of Wyong”. Details of the plan are provided in Section 5, which lists protected heritage items. No Indigenous heritage places area listed with in the study area.

However, as the development project has been approved as an SSD, a development application will not be required to be approved by Council.

2.4 NSW Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act 1983* (ALR Act) established Aboriginal Land Councils (at State and Local levels). These bodies have a statutory obligation under the ALR Act to:

(a) take action to protect the culture and heritage of Aboriginal persons in the council's area, subject to any other law, and

(b) promote awareness in the community of the culture and heritage of Aboriginal persons in the council's area.

The study area is within the boundary of the Darkinjung LALC.

2.5 NSW Native Title Act 1994

The *Native Title Act 1994* was introduced to work in conjunction with the Commonwealth *Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act.

Request for information concerning any determinations in regard to the study area were made to the Native Title Tribunal on the 3 December 2021.

There are no Native Title claims currently registered in the study area.

2.6 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The *Environment and Heritage Legislation Amendment Act (No. 1) 2003* amends the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to include 'national heritage' as a matter of national environmental significance and protects listed places to the fullest extent under the Constitution. It also establishes the National Heritage List and the Commonwealth Heritage List.

The *Australian Heritage Council Act 2003* establishes a new heritage advisory body – the Australian Heritage Council – to the Minister for the Environment and Energy and retains the Register of the National Estate.

The *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003* repeals the *Australian Heritage Commission Act 1975*, amends various Acts as a consequence of this repeal and allows the transition to the current heritage system.

Together the above three Acts provide protection for Australia's natural, Indigenous and non-Indigenous heritage. The new framework includes:

- A new National Heritage List of places of national heritage significance
- A Commonwealth Heritage List of heritage places owned or managed by the Commonwealth
- The creation of the Australian Heritage Council, an independent expert body to advise the Minster on the listing and protection of heritage places
- Continued management of the non-statutory Register of the National Estate.

2.6.1 National Heritage List

The NHL is a list of places with outstanding heritage value to our nation, including places overseas. So important are the heritage values of these places that they are protected under the EPBC Act. This means that a person cannot take an action that has, will have, or is likely to have, a significant impact on the national heritage values of a national heritage place without the approval of the Australian Government Minister for the Environment and Heritage

There are no items listed on the National Heritage List located within the study area for this assessment.

2.6.2 Commonwealth Heritage List

The Commonwealth Heritage List (CHL) is a list of places managed or owned by the Australian Government and not of relevance to this project.

There are no items listed on the Commonwealth Heritage List located within the study area for this assessment.

3.0 ABORIGINAL COMMUNITY PARTICIPATION

3.1 Aboriginal consultation

Aboriginal community consultation has been conducted in accordance with the Consultation Requirements (DECCW 2010a).

A consultation log has been maintained which details all correspondence with the registered Aboriginal parties for the ACHAR. The consultation log and copies of correspondence are included in the Appendices

3.2 Identification of stakeholders and registration of interest

The consultation for this ACHAR commenced in anticipation of the SEARs being awarded for the proposal.

In accordance with step 4.1.2 of the Consultation Requirements, Artefact Heritage corresponded with the following organisations by email on the 3 December 2021 requesting the details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area:

- Heritage NSW
- Central Coast Council
- Native Title Service Corporation (NTSCorp)
- National Native Title Tribunal
- Office of the Registrar, Aboriginal Land Rights Act 1983
- Darkinjung Local Aboriginal Land Council

In addition to this, and in accordance with Step 4.1.3 of the Consultation Requirements, an advertisement was placed in The Chronical on 8 December 2021 inviting the participation of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the local area.

In accordance with Step 4.1.3 of the Consultation Requirements, on the 23 December 2021, emails or letters were sent to all Aboriginal persons or organisations identified through advertisement or through responses from agencies contacted as part of Step 4.1.2. In accordance with Step 4.2 the letters provided details about the location and nature of the proposal, as well as an invitation to register as an Aboriginal stakeholder.

As a result of that process 11 groups/individuals registered their interest (see Table 2). Two RAPs requested that only their organisation name be included. A copy of the proposed assessment methodology was sent to registered Aboriginal parties (RAPs) by email and postal mail on 24 January 2022, requesting comments at the close of 28 days. At the end of this period, one RAP had responded (Table 3).

Table 2: Registered Aboriginal parties for the study area

Contact Name	Organisation/ Individual
Carolyn Hickey	A1 Indigenous Services
	Corroboree Aboriginal Corporation
CEO	Darkinjung Local Aboriginal Land Council
Trudy Smith	Trudy Smith
	Woka Aboriginal Corporation
Paul Boyd & Lilly Carroll	Didge Ngunawal Clan
Shayne Dickson	Gunjeewong Cultural Heritage Aboriginal Corporation
Renee Sales	Gugiyn Balun
Kerrie Brauer	Awabakal & Guringai Pty
Tracey Howie	Guringai Tribal Link Aboriginal Corporation
Steven Hickey	Widescope Indigenous Group

A summary list of RAP comments is presented in Table 3.

Table 3: Summary of RAP comments on ACHAR methodology.

Name	Comments
Brett Duroux for Renee Sales, Gugiyn Balun	Offer of assistance to work with project on protocols concerning removal of artefacts, buffer zones in impact areas and to arrange team of officers for consultation on works to provide a confident final draft and “to put all minds at rest for Traditional Custodians to approve and go a head with this proposal and look forward to many more in the future”. Full text in consultation log.

On 3 March 2022 the draft ACHAR was emailed to the RAPs for feedback and comment (for a 28 day feedback period). Table 4 presents the comment of the RAP.

Table 4: Summary of RAP comments on draft ACHAR.

Name	Comments
Corroboree Aboriginal Corporation	"We agree with the draft"
A1 Indigenous Services	I have reviewed the document and support the Information in the Draft ACHAR for 11 Warren Road, Warnervale.

The findings and recommendations of the ACHAR were supported by the RAPs through the consultation process. The consultation period closed on 31 March 2022.

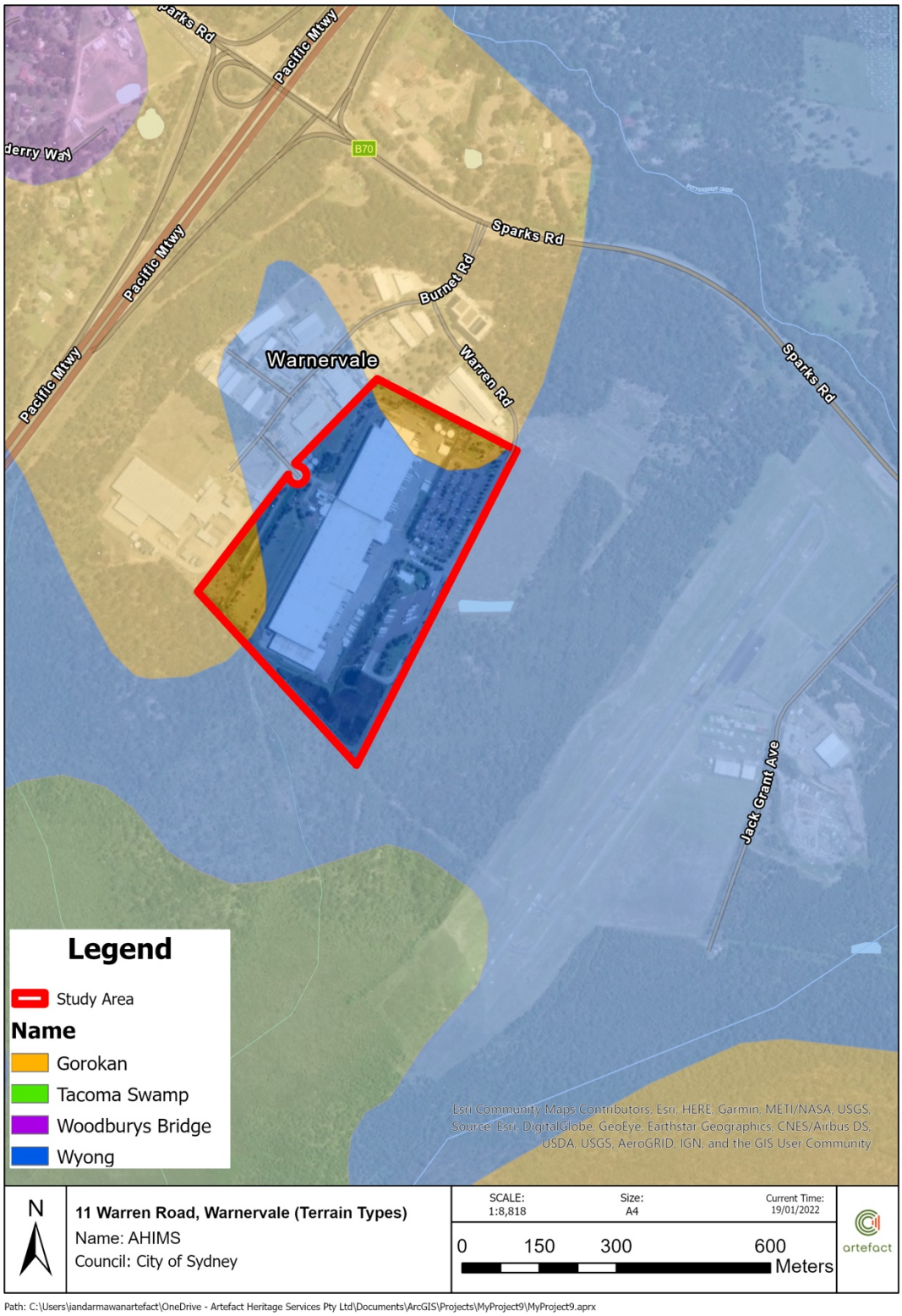
4.0 ENVIRONMENTAL CONTEXT

4.1 Geology and soils

The study area is located predominantly in the Wyong subregion of the Sydney Basin Bioregion (Figure 6). The Wyong subregion is characterised rolling hills and sandstone plateaus on the western extent, with a coastal fall, down to dune systems with interspersed rock formations (OEH 2011).

It is underlain by soils of the Gorokan Soil Group which is categorised by undulating low hills and rises of the Triassic Tuggerah Formation with slope gradients of less than 15%. Soils within this group are between 0.5 m and 1.5 m deep (Douglas Partners 2009). The Tuggerah Formation is comprised of green to grey laminate and red siltstone interspersed with fine to medium green grey sandstone (Och et al 2015).

Figure 6 . Soil scape of study area (espade.environment.nsw.gov.au © State of NSW and Department of Planning, Industry and Environment 2021).



4.2 Landform and hydrology

The study area is located in low lying land, at a maximum of 10m above sea level. It is surrounded on the north-west, north and north-eastern sides by ponds and creeks, and a third order tributary of the Buttonderry Creek lies 570 m to the north east. Drainage lines have been constructed on the south- and south western side of the study area (Figure 7), which drain into Porters Creek which in turn finds its way to the Wyong River. This suggests the broader area would have been swampy prior to intervention via drainage channels.

Figure 7. Location of study area to third order tributary and to drainage lines.

4.3 Vegetation

Tall moist eucalyptus forests are widespread in the Watagans National Park and Jilliby State Conservation Area; located approximately 5.5 km west of the study area. The reserves straddle the Cessnock, Wyong and Lake Macquarie LGAs. These reserves commonly contain turpentine (Syncarpia glomulifera), mountain blue gum (Eucalyptus deanei), white mahogany (E. acmenoides), Sydney blue gum (*E. saligna*), blue-leaved stringy bark (*E. agglomerate*), blackbutt (*E. pilularis*), and grey gum (*E. propinqua*) with warm temperate rainforest influences dominating the understorey of these communities (NSW National Parks and Wildlife Service 2010: 11).

Smaller areas of warm-temperate sub-tropical rainforests and paperbark palm forests occur in sheltered gullies and creek-lines. The paperbark palm forests contain a number of melaleucaspecies (Melaleuca biconvexa and M. linariifolia) with white bottlebrush (Callistemon salignus) and cabbage tree plants (*Livistona australis*) (NSW National Parks and Wildlife Service 2010: 11).

Buttonderry Creek, which starts in the Olney State Forest and travels through Jilliby past Sparks Road and tapers off at Warnervale (Wyong Shire Council 2016), is located approximately 280 m north of the study area.

4.4 European history and land use

During the first half of the 19th century, the wealth of timber resources in the Wyong region and its close proximity to Sydney attracted timber-getters, but permanent settlement was slow due to the area's rugged topography. Gradually, a commercial fishing industry developed on the Tuggerah Lakes, around which numerous small fishing villages were established (Pry and Fenton, 1998:21). Shell gathering, for the purpose of creating lime putty mortar used in the construction of buildings, also became one of the earliest industries in the area (AMBS 2014: 17).

With the arrival of the Great Northern Railway in the late 1880s, the isolation of the area was eased, opening up the region to tourists who visited on day trips and for holidays, and giving local farmers quick and reliable access to markets (Pry and Fenton, 1998:21). The railway acted as a stimulus to development, and by the 1890s, citrus farming and dairying were growing industries in the region (Pittendrigh Shinkfield Bruce, 2007:13).

Warnerville originated as part a 12,000-acre estate purchased by Albert Hamlyn Warner on the 20 November 1903. Warner subdivided the land and offered it for sale as the Warner Estate, the first subdivision of which was a town site to become known as Warnervale (Thorp 1994). Warner died in 1933 at the age of 67 and was buried in the Church of England Cemetery, Jilliby (The Gosford Times and Wyong District Advocate, 1933).

The timber resources for which the region was known began to dwindle and the industry fell into decline. A 1925 edition of The Gosford Times reports that new settlers to Warnervale should not come expecting to find useful timber on their land as most plots had been cleared of mature trees by this time, however plenty of white gum was left for firewood.

Warnervale became known for its poultry farming. In 1926 Warnervale was considered the centre of the Wyong poultry district which brought in £2000 each season from eggs, and had over 90,000 heads of poultry. The Poultry Farmer's Association of N.S.W executive formed a branch in the same year (The Newcastle Sun 1926).

From the 1960s, the region's rural industries were superseded by coal mining and urban development. The population shifted from holiday-makers to more permanent residents, and rapid urban development has continued to the present. During the 1970s, a large portion of the Wyong area was cleared and sold as "ten acre lots", since then some have revegetated while others have been kept clear for horses (Appleton 2005). Between 2010 and 2011, a portion of the study was entirely stripped of vegetation.

The study area is located on land originally owned by A.E. Wamsley (Figure 8). The Wamsleys (originally Walmsleys) were a large family owning several blocks of land in Ourimbah. The family also owned a hotel, the Traveller's Rest. Edward Wamsley (1829-1895), one of 10 children of Edward William P. Wamsley and Sarah (nee Walker), was listed as licensee of the hotel in 1882. Edward's third son, Alfred Edward Wamsley, born 23 May 1855, was licensee in 1888 and again in 1894. The hotel burnt down in 1950. Alfred and Mary Jane Morris had twelve children, one being Arthur Edward Wamsley. Arthur was born in 1881. Arthur married Wilhelmina Goldie and the couple had four children before Arthur died in 1971 (AMBS 2004: 16).

The study area is located within a zone that has historically been characterised as rural in nature. The Parish map of 1940 (Figure 8) shows a road or path leading through the study area. The dominant activities within the vicinity from the nineteenth century onwards have been a mix of agricultural pursuits, including pastoralism (notably poultry farming) and agriculture. Ploughing works, associated with pastoralism, would typically impact the soil profile to a depth of approximately 30cm.

Historical images since the 1970s show the study area as sparsely vegetated consistent with deforestation but with vegetation present into the 1980s (Figure 10) and 1990s until the area is cleared prior to construction by 2004 (Figure 11) of the current facility. In both Figure 11 and Figure 12, the soil appears to have been disturbed to the boundary.

Figure 8. 15th February 1940 Parish map with approximate location of study area in red, image via Land & Property Information, Tenth Edition Parish of Munmorah County of Northumberland Land District of Gosford.

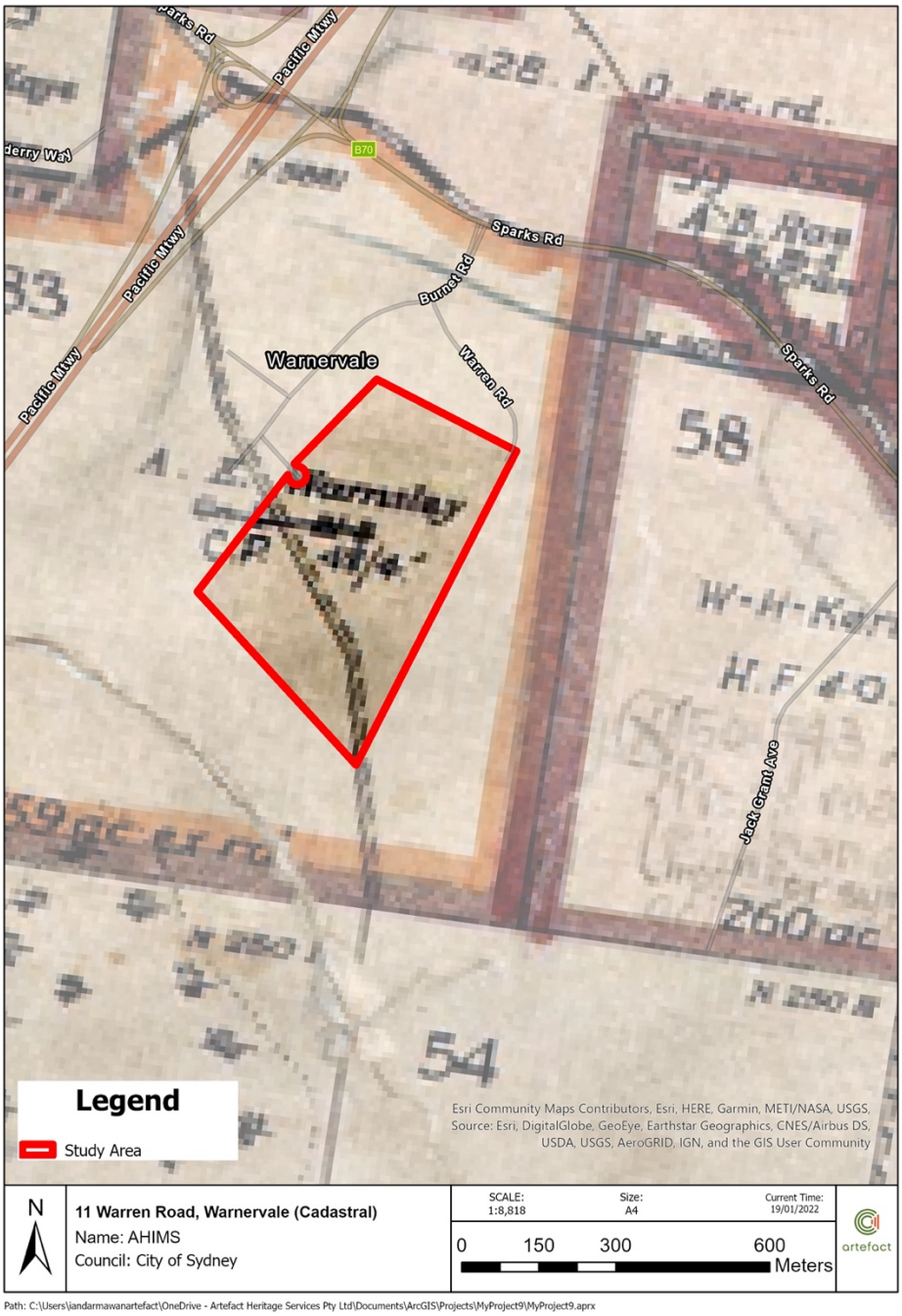


Figure 9. Sparsely vegetated land in / around the study area, west of the airstrip (Historical Images 1975 2315_04_055.

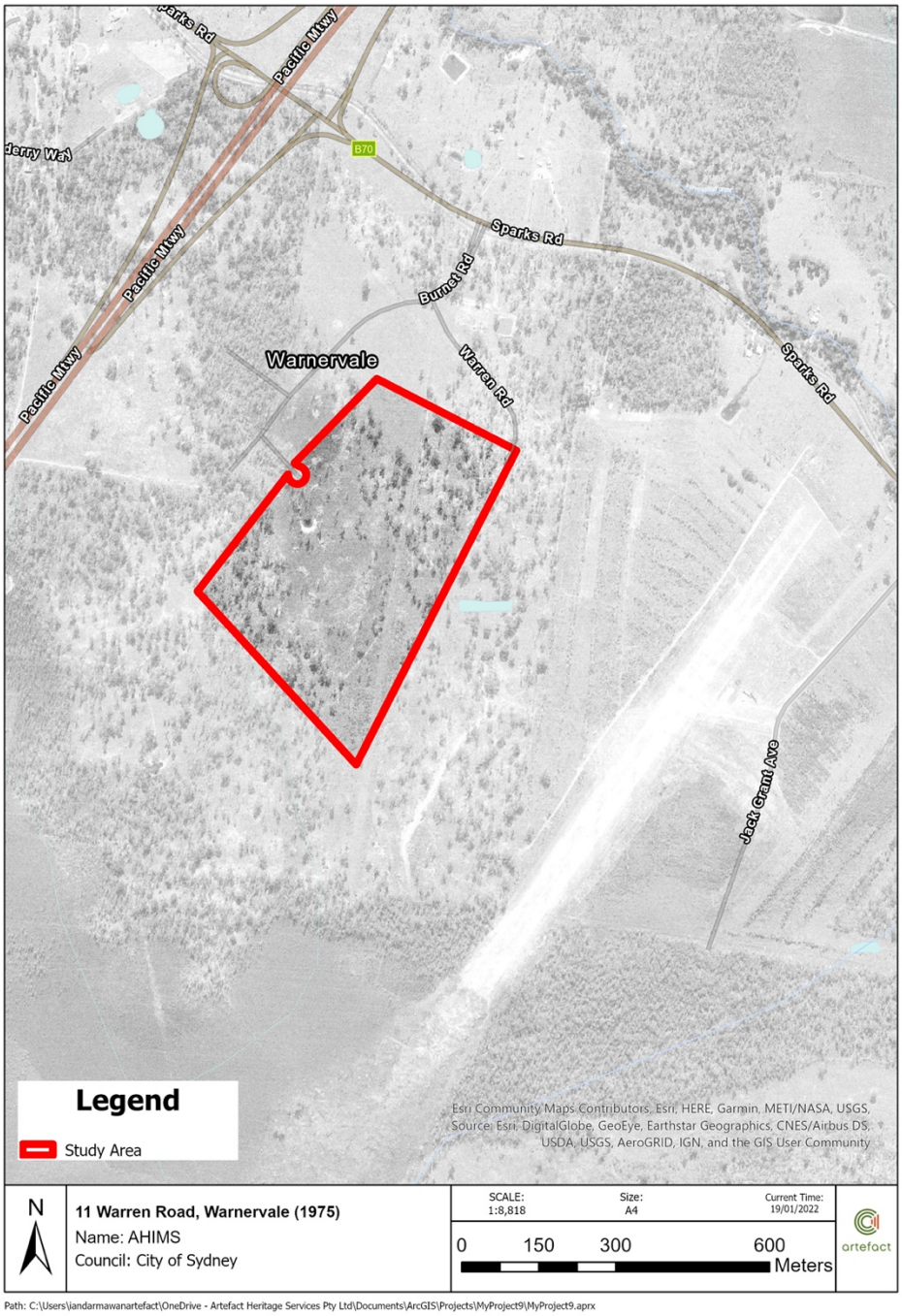


Figure 10. In 1984 vegetation has increased (Historical Images 1984 3382_04_013.jp2)

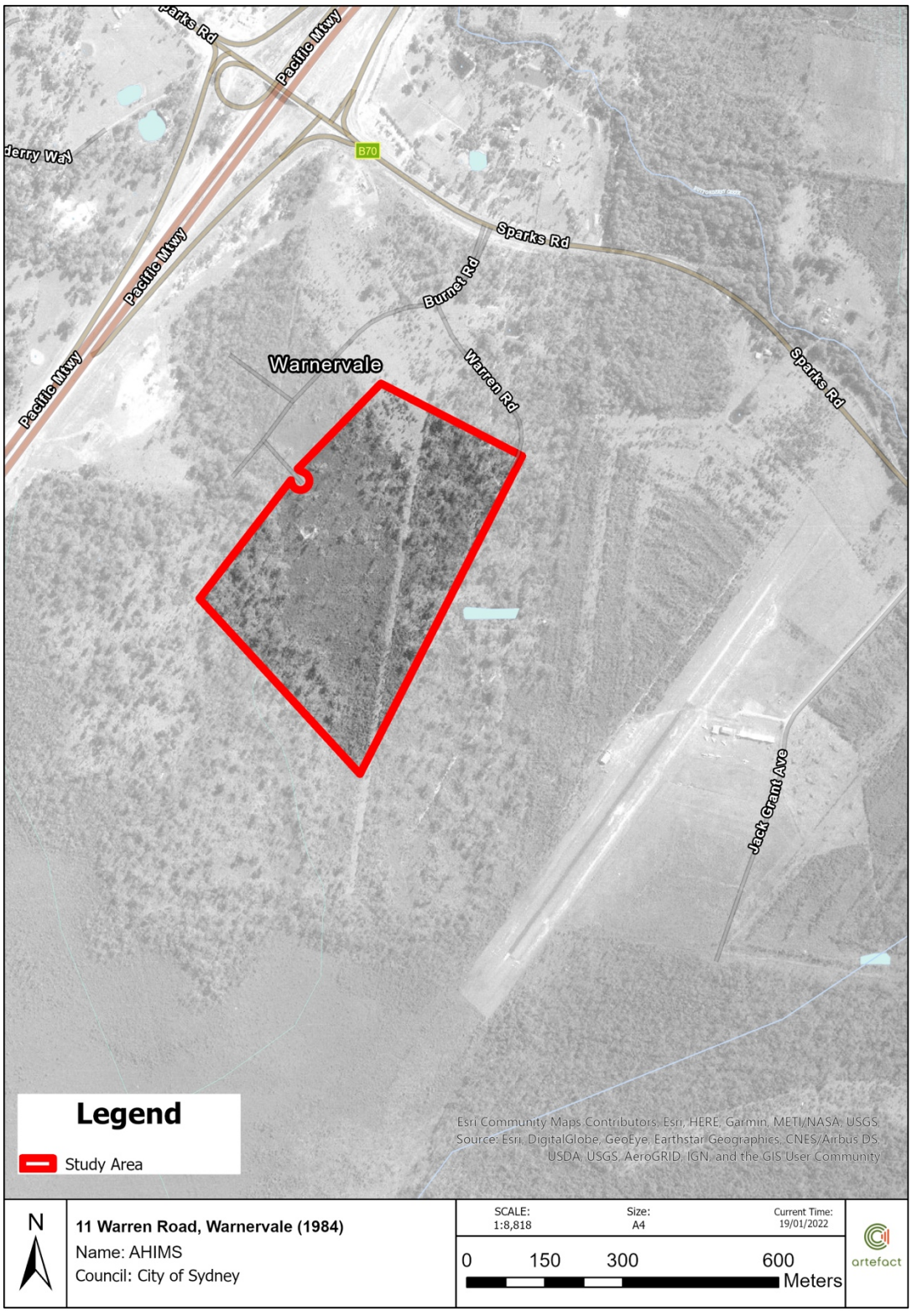


Figure 11. Land clearance prior to construction, image taken in 2004 (HIST IMAGES 2004 4881_04_050.jp2).

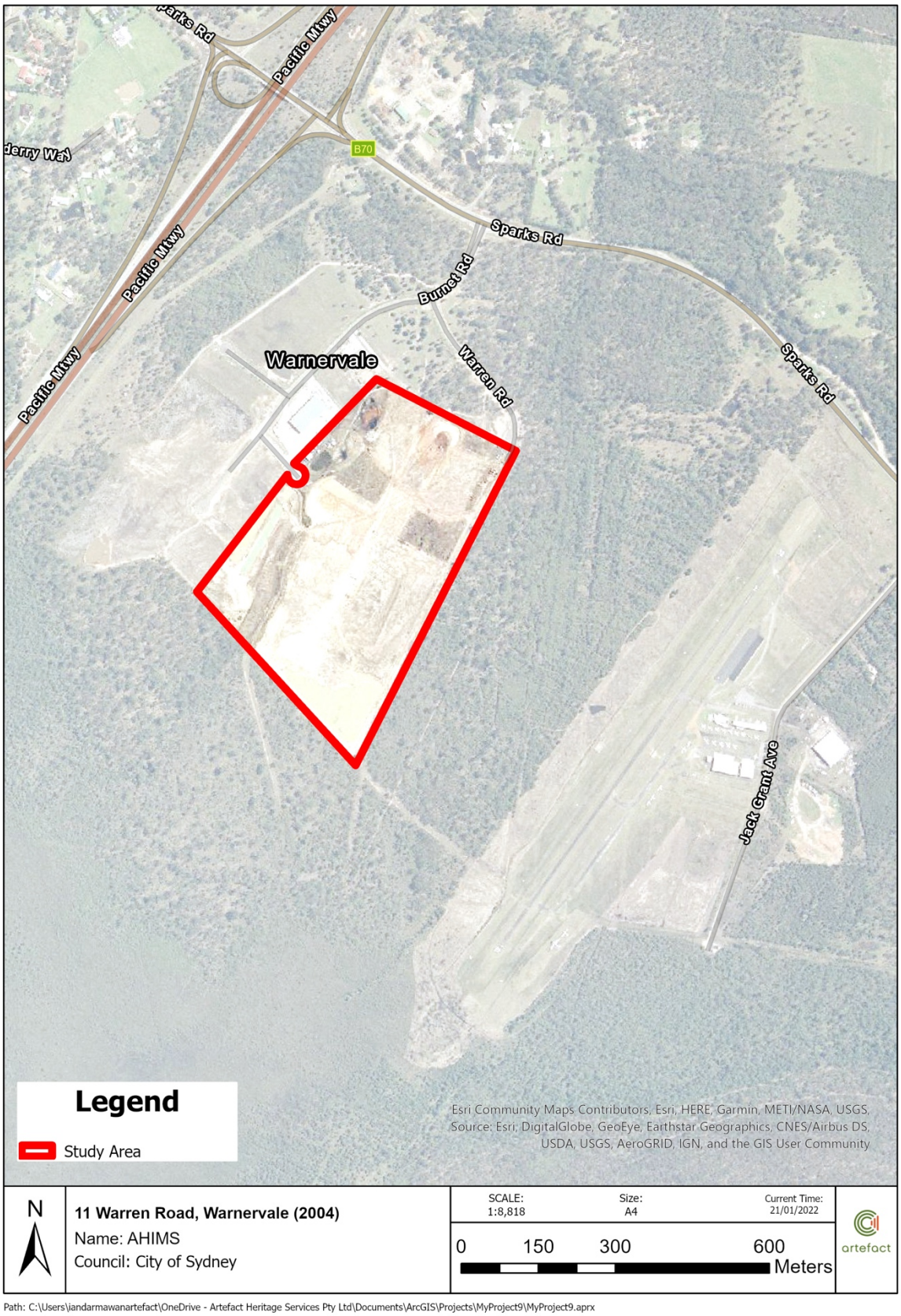


Figure 12. Construction of the building currently on site in the study area in 2006 (HIST IMAGES 2006 4957_-7_227.jp2)

5.0 ARCHAEOLOGICAL AND ETHNOGRAPHIC CONTEXT

5.1 Ethnographic and historical evidence

Assumptions about Aboriginal land use patterns are made on the basis of archaeological information gained from the local area, from observations made by colonists and settlers after settlement of the area, and from information known about available natural resources.

Aboriginal people were highly mobile hunter-gathers. They used a range of resources, some of which were only available seasonally. This necessitated movement and/or trade in such resources. Particular ceremonial or ritual events also prompted people to move (Attenbrow 2010: 78). Aboriginal people hunted kangaroo and wallaby and snared possums for food and skins (Bradley 1788) and caught fish and collected shellfish in marine or estuarine environments.

Plants were an important source of nutrition and were also used in the manufacture of tools. Gum and sap were used for binding or for hafting, such as in the manufacture of stone hatchets and plant fibres were used to make baskets, nets, ropes and hammocks. Plant products were also used in the manufacture of shelters, shields and other weapons, coolamons, used to carry food and water, and digging sticks.

Prior to the appropriation of their land by Europeans, Aboriginal people lived in small family or clan groups that were associated with particular territories or places. It seems that territorial boundaries were fairly fluid, although details are not known. The language group spoken in the Tuggerah area is thought to have been Darkinjung, though the Awabakal language group was also located along the coast close by. The Darkinjung lands roughly extend from the Hawkesbury River northwards to Wollombi and the southern drainage of the Hunter River (Tindale, 1974).

British colonisation had a profound and devastating 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. In 1828, conflict between European settlers and Aboriginal people in the Gosford region led to investigation by the local magistrate. It was found that a local landowner, William Cape, regularly threatened local Aboriginal people with his musket and provoked them to acts of violence (Kuskie, 2008:15).

Overall the devastation of Aboriginal culture did not come about through war with the British, but instead through disease and forced removal from traditional lands. It is thought that during the 1789 smallpox epidemic over half of the Aboriginal people of the greater Sydney region died.

Descendants of Darkinjung language speakers have continued to live in the region until the present-day, and the study area falls within the area of the Darkinjung LALC.

5.2 Archaeological Evidence

The oldest securely dated site for Aboriginal occupation in the greater Sydney region is 14,700 years before present (yBP), which was recorded in a rock shelter at Shaw's Creek (Nanson et al, 1987). Evidence of Aboriginal occupation has been found dated to 50-60,000 yBP at Lake Mungo in NSW, so it would be likely that Aboriginal people have lived in the Sydney region for even longer than indicated by the oldest recorded dates available at present. Aboriginal occupation of the NSW Central Coast region has been dated to around 15,000 yBP in the Newcastle Bight by Baker (1994), with occupation of the hinterland ranges dated to 11,000 yBP in the Mangrove Creek Dam catchment (Attenbrow, 1981). Most sites in the Gosford-Wyong region have been dated or are assumed to date to the late

Holocene (<4,000 yBP) (Kuskie, 2008:14). The archaeological material record provides evidence of this long occupation, but also provides evidence of a dynamic culture that has changed through time.

The existing archaeological record is limited to certain materials and objects that were able to withstand degradation and decay. As a result the most common type of Aboriginal objects remaining in the archaeological record are stone artefacts. Archaeological analyses of these artefacts in their contexts have provided the basis for the interpretation of change in material culture over time. Technologies used for making tools changed, along with preference of raw material. Different types of tools appeared at certain times, for example ground stone hatchets are first observed in the archaeological record around 4,000 yBP in the Sydney region (Attenbrow, 2010:102). It is argued that these changes in material culture were an indication of changes in social organisation and behaviour.

The Eastern Regional Sequence was first developed by McCarthy to explain the typological differences he was seeing in stone tool technology in different stratigraphic levels during excavations such as Lapstone Creek near the foot of the Blue Mountains (McCarthy, 1948). The sequence had three phases that corresponded to different technologies and tool types (the Capertian, Bondaian and Eloueran). The categories have been refined through the interpretation of further excavation data and radiocarbon dates (Hiscock & Attenbrow, 2005; JMcD CHM, 2005).

It is now thought that prior to 8,500 yBP tool technology remained fairly static with a preference for silicified tuff, quartz and some unheated silcrete. Bipolar flaking was rare with unifacial flaking predominant. No backed artefacts have been found of this antiquity. After 8,500 yBP silcrete was more dominant as a raw material, and bifacial flaking became the most common technique for tool manufacture. From about 4,000 yBP to 1,000 yBP backed artefacts appear more frequently. Tool manufacture techniques become more complex and bipolar flaking increases (JMcD CHM, 2006). It has been argued that from 1,400 to 1,000 years before contact there is evidence of a decline in tool manufacture. This reduction may be the result of decreased tool making, an increase in the use of organic materials, changes in the way tools were made, or changes in what types of tools were preferred (Attenbrow, 2010:102). The reduction in evidence coincides with the reduction in frequency of backed blades as a percentage of the assemblage

5.3 Registered Aboriginal sites

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data and GIS imagery, is removed from this report if it is to enter the public domain.

An extensive search of the Aboriginal Heritage Information System (AHIMS) database was undertaken on 17 September 2021 (Client ID: 623191).

An area of approximately [redacted]km was included in the search. The AHIMS search provides archaeological context for the area and identifies whether any previously recorded Aboriginal sites are located within or near the study area. The parameters of the search were as follows:

GDA	[redacted]
Buffer	[redacted]km
Number of sites	4

A total of 4 sites were identified in the extensive AHIMS search area. None of these was located in the study area. The distribution of these recorded sites is shown in Figure 13. OEH lists 20 standard site features that can be used to describe a site registered with AHIMS, and more than one feature can be used for each site. The frequency of recorded site types is summarised in Table 5. For the 4 sites within the search area, one site feature was recorded: this was Artefact (100%) (n=4).

Table 5: Frequency of recorded site types

Site feature	Frequency	Per cent (%)
Artefact	4	100
Total	4	100

The nature and location of the registered sites is a reflection of the past Aboriginal occupation from which they derive, but is also influenced by historical land-use, and the nature and extent of previous archaeological investigations. Although Aboriginal occupation covered the whole of the landscape, the availability of fresh water, and associated resources, was a significant factor in repeated and long-term occupation of specific areas within the landscape. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient.

5.3.1 [redacted] (reburied)

This single isolated broken stone flake was located on private land in a cleared and revegetated area of flat land within a broader undulating plain. The area was semi-rural at the time. The site is located approximately [redacted] from the intersection of the western and southern boundaries of the study area.

5.3.2 [redacted] (reburied)

This site comprised 1 red silcrete medial flake and a pink/tan silcrete broken flake (proximal flake) with broken termination and 2 dorsal scares. The artefacts were found in a cleared area, with disturbed and redeposited soil, which had also been covered with woodchips. An unnamed first order creek lay approximately 1 km away, which had been made into a canal. The area would have been forest but has been cleared and supports regrowth Swamp sclerophyll Forest and Narrabeen Buttonderry Forest, native grasses, weeds and native shrubs. The site was noted to be of importance to the local Aboriginal community. The site was located approximately [redacted] from the study area.

5.3.3 [redacted] (reburied)

This site comprised 1 small proximal flake of red silcrete, with the distal end snapped. It was found in spoil, next to a borehole within 1 meter of a test pit dug for geotechnical investigation of the site. The area would have been forest but has been cleared and supports regrowth Swamp sclerophyll Forest and Narrabeen Buttonderry Forest, native grasses, weeds and native shrubs. This site was located approximately [redacted] from the study area.

Summary

AHIMS ID [redacted]), AHIMS ID [redacted] and AHIMS ID [redacted] were first identified by Jon Appleton in 2004 and re-investigated by Jo McDonald Cultural Heritage Management (JMDHM) in 2008 for a development application for Coca Cola Amatil. Development was approved on 2 December 2008 and AHMS engaged in 2009 to carry out test excavation and/or salvage.

After consultation the three sites were completed destroyed and the artefacts reburied (see [redacted] see below).

5.3.4 [redacted]

The site card for this site describes the position of the reburied archaeological material including AHIMS ID [redacted] AHIMS ID [redacted] and AHIMS ID [redacted] described above. The reburial included 24 stone tools.

Figure 13. The study area in relation to AHIMS registered sites.

IMAGE REMOVED FOR PUBLIC VIEWING

5.4 Previous archaeological investigations

While numerous archaeological studies have been conducted in the Wyong region, relatively few of these have located Aboriginal archaeological sites. Dallas (1983) has suggested that this low level of site location probably results from local terrain conditions and high levels of disturbance since European settlement. The following section summarises the findings of previous studies in the vicinity of the current study area commencing with those adjacent to the study area.

Aboriginal Due Diligence Assessment of [redacted] Sparks Road, Warnervale. May 2016. (Artefact 2016)

This Due Diligence assessment was undertaken by Artefact in relation to proposed rezoning of land at Sparks Road, Warnervale for a theme park on land which lies adjacent to the eastern boundary of study area. The assessment was conducted for the Wyong Shire Council. An AHIMS search of the area revealed 28 recorded sites within an area of roughly [redacted] all of which were artefacts except for one are of Potential Archaeological Deposit (PAD). The sites close to the study area included [redacted]

The report presented the results of previous geotechnical assessments made by Cardno Geotech Solutions (CGS) located in the south west of their study area. Four boreholes were drilled revealing fill across the sampled areas of 0-15 meters (m); alluvial soils between .3 – 9.4 m; bedrock revealed at 6 – 9.45 m. The report concluded that while there was introduced fill across the samples, geotechnical investigation suggested that introduced fill might cover intact alluvial soils.

No Aboriginal sites were identified or sites located within the study area although similar landforms in the local area had revealed artefacts. Because overall there was minimal ground surface disruption across the study area, it was considered likely that subsurface artefacts might be found in the study area.

Bluetongue Brewery, Warnervale – Stage 1 Excavation Report for Pacific Beverages Pty Ltd, March 2009

Bluetongue brewery, now closed, was located immediately west of the current study area. AHMS investigated five separate transects across the brewery site by machine excavation to investigate the presence of any natural deposits and the depth of the soil profile underlying the area. A total areal extent of 17m² was investigated as individual 1 m x 1 m test pits. The brewery site study area was characterised by AHMS as significantly disturbed, most likely associated with the construction of the nearby Warnervale Business Park (ie 11 Warren Road). Excavation revealed a stockpile of topsoil buried under a thin clay capping in Transects 4 and 5, the stockpile was clearly artificial in nature and most likely originated from the recent construction at 11 Warren Road. The absence of topsoil elsewhere across the Brewery site study area further suggests that the stockpile represents the topsoil from across the Brewery site study area. This unit was found some 30-40 cm below ground level and was present to a depth of 80 cm below ground level.

A total of 16 artefacts were recovered, with 8 artefacts recovered from surface collections. Most of these artefacts were broken flakes and angular fragments. Few artefacts were recovered from excavation (n=8), most of which were obtained from the stockpiled topsoil unit (n=6). It was determined that the study area retained no natural soil profile, and hence low to nil archaeological significance, due to the extensive modifications as part of the nearby Warnervale Business Park (11 Warren Road). However, an inspection of the [redacted] within the study area and areas [redacted] of the study area did indicate the potential for natural soil profiles and hence a far greater potential for *in situ* archaeological material.

Assessment of Aboriginal Heritage Proposed Bluetongue Brewery, Burnet Road, Warnervale NSW November 2008. Report to GHD Pty Ltd, by Jo McDonald Cultural Heritage Management Pty Ltd

The 10-hectare study area is approximately [redacted] of the current study area. The proposed development of the Pacific Beverages Bluetongue Brewery on Burnet Road, Warnervale included, but was not limited to, the construction of a brewing facility with a floor space of approximately 30,000m², external storage areas, silos, tanks, packaging facility and warehouse. The proposal was anticipated to result in the total destruction of any archaeological deposits which may have been present.

The area was assessed as having been subject to moderate to high disturbance across the total site, the disturbance included vegetation clearance, machine tracks and earthworks related with dam construction. The area was assessed as having low to no archaeological potential, low to no scientific significance and low public significance.

A pedestrian survey was undertaken on 21 October 2008. Two isolated artefacts were identified [redacted] study area, one previously known [redacted] and one as a result of the field survey [redacted]

It was recommended that there were no Zone 1 (high archaeological potential) lands in the study area, therefore no areas affected by the development proposal warranted conservation. Development impact on the study area would require the destruction of two identified surface finds, while this would usually require a section 90 consent from the Director-General of the DECC, as this proposal was a Part 3A Development, Director General of the Department of Planning was required to condition the development to consider the presence of identified Indigenous heritage items within the development land.

M1 Pacific Motorway Widening and Replacement, Tuggerah to Doyalson: Aboriginal Archaeological Survey Report

This report was prepared by Australian Museum Business Services (AMBS) for SMEC Australia Pty Ltd in April 2014. Portions of the survey report, 'Warren Road Ancillary Site', [redacted] are in the [redacted] of current study area.

An archaeological survey of the study area was undertaken over a two-day period on 1 and 2 May 2013. No Aboriginal sites were identified. AMBS contributed this to the recent history of land use, high levels of ground surface disturbance, and environmental factors such as soil landscapes that have high to extreme soil erosion susceptibility. Localised areas that are seasonally or permanently waterlogged suggests that the area does not have potential to retain any in situ subsurface archaeological deposits.

No specific cultural significances were identified in the study area by DLALC. The site was determined to have no historic, scientific (archaeological) or aesthetic value.

Archaeological Investigation for Sites of Indigenous Cultural Significance on the Site of the Proposed Warnervale District Town Centre & Sewerage Infrastructure, 2004

The report study area is located approximately [redacted] east of the current study area. The report was prepared for LANDCOM by John Appleton, Archaeological Surveys & Reports Pty Ltd in March 2004.

A pedestrian survey was undertaken over two days on 18 and 19 March 2004. No artefacts or sites of Indigenous origin were identified in the survey area. The report found that in the absence of any

defined artefactual context or places of Indigenous cultural significance within the survey area, it was recommended that there were no archaeological or cultural constraints to the proposed development.

New Intercity Fleet-Maintenance Facility: Aboriginal Cultural Heritage Due Diligence Assessment – Biosis, October 2015

Biosis Pty Ltd (Biosis) was commissioned by Transport for New South Wales (TfNSW) to undertake an Aboriginal Cultural Heritage Due Diligence Assessment for the proposed Maintenance Facility as part of the New Intercity Fleet Program at Kangy Angy, NSW located approximately [redacted] south of the current study area. The report found that there is a high potential for artefact scatters to be present within minimally disturbed areas overlooking creeklines. There was also a moderate potential for scarred trees to be present within uncleared areas which were unable to be surveyed due to restricted access. There was a high potential for grinding grooves or rock engravings to be present within suitable sandstone outcrops.

Biosis recommended further archaeological investigation for the study area (excluding the rail corridor) in the form of an Aboriginal Cultural Heritage Assessment. The rail corridor was considered highly disturbed.

New Intercity Fleet-Maintenance Facility: Orchard Road, Kangy Angy. Aboriginal Cultural Heritage Due Diligence Assessment Report. Artefact, December 2017.

Following the above, test excavation was carried out in September 2017 by Artefact, which identified one Aboriginal site with within the study area. As the maintenance facility project had the potential to harm Aboriginal objects, Artefact Heritage was commissioned by WSP Pty Ltd. (WSP) on behalf of TfNSW to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) to assess the potential impacts, and support at least one application for an Aboriginal Heritage Impact Permit (AHIP) to the Office of Environment and Heritage (OEH).

It was found that: One Aboriginal site, identified was located within the study area which was assessed to hold moderate archaeological significance and that construction would result in direct impact, with partial loss of archaeological value.

Archaeological Investigation for sites of Indigenous cultural sensitivity in Precincts [redacted] and [redacted] – Wyong Employment Zone – John Appleton, April 2005

This investigation was performed for Wyong Shire Council (WSC), which was undertaking an investigation of land in the Halloran/Warnervale area, after Council determined to proceed with the preparation of rezoning in the area. The investigation was located approximately [redacted] north west of the current study area.

The survey was undertaken over a two-day period on foot. A single artefact, [redacted] was located during the survey. It was found on an upper slope of a ridge in a highly disturbed context as a result of clearance for grazing. The vast majority of the properties surveyed had been significantly altered, and in areas that had not been, the archaeological visibility was very poor. It was found that the environment would not have been suitable for long-term campsites. People travelling through the area would have utilized the open ridges, descending the slopes only to obtain water or to hunt and collect food. Given the absence of a suitable stone material, it is unlikely that the users left large or dense artefact scatters. Very few old growth trees remained and therefore little likelihood of finding any scarred or carved trees. The absence of outcropping rock precluded the likelihood of finding other site types.

The DLALC recommended that there were no cultural constraints to the proposed development of the study area. Research potential was assessed to be very low. The report recommended that there were no archaeological constraints to the proposed development.

Archaeological Investigation for sites of Indigenous cultural significance on Part Lot [redacted] – John Appleton, March 2006 (Artefact 2016 source)

This investigation was performed for Wyong Shire Council (WSC), which undertook a feasibility study of the industrial zoning of a small portion of Part Lot [redacted], Sparks Road Warnervale, approximately [redacted] east of the current study area. No Aboriginal archaeological sites were identified during the survey. The report recommended that there are no archaeological or cultural constraints to the proposed development of the study area.

Appleton categorised the area as one in which it was unlikely that artefactual material would be observed. This was due to the survey area (Part A) being prone to flooding and the unlikely nature of campsites having occurred in the area, the environment was considered to be generally inhospitable and not a place where Aboriginal people would stay for very long, the absence of any stone resource suitable for knapping made it very unlikely that artefacts would occur other than as very small, tool maintenance flakes, or as isolated ground edged axes, and the dense vegetation obscured most of the ground surface, so that even if artefacts had been present, they would have been hidden from view. There were few substantial old growth trees remaining, and so there was little likelihood of finding any scarred or carved trees, and the absence of outcropping rock and clearly defined drainage lines precluded the likelihood of finding other site types.

[redacted] Warnervale Road, Warnervale, NSW Central Coast LGA – Rezoning and Redevelopment. Aboriginal Cultural Heritage Assessment Report for AV Jennings. Extent Heritage 2018.

Extent carried out a ACHAR for the rezoning of [redacted] Warnervale Road, Warnervale, approximately [redacted] from the study area, for residential housing. An earlier study undertaken in 2009 had found 18 identified artefacts and sites, eleven of which were in the study area. The sites were primarily located on the [redacted] in the [redacted] of the Precinct [redacted] under investigation. A preliminary site survey was undertaken, followed by test excavation following the guidelines of the Heritage NSW (formerly Office of the Environment and Heritage) which included consultation with Aboriginal communities.

The study identified eleven previously recorded sites (consisting of isolated finds and scatters). Of these, four were relocated; and four new sites were recorded on the [redacted] of which two were scatters and two were isolated finds. Landforms and contours of low (including wetlands), moderate and high archaeological sensitivity were identified (Extent 2018: i-ii).

Test excavation was undertaken to investigate the identified sites and areas of sensitivity at all levels covering 35.5m^2 at depths of 5 to 110 cm per spit, with an average depth of 27cm below ground surface within compacted sandy clay and silty clay soil profiles. Most of the test pits were in Gorokan soil landscapes which had generally very shallow or no A1 soil horizon. The soil profile of low lying areas were consistent with Wyong soil landscapes and no artefacts were recovered from these test pits which showed signs of having been waterlogged after rain.

Twelve artefacts (flakes, flake fragments, one core tool and angular fragments) were found during the test excavation, dominated by silcrete, followed by indurated mudstone/tuff (IMT) and fine grained siliceous (FGS) and one piece of quartzite (Extent 2018:ii). These were found at a depth ranging from 0-40 cm.

The study concluded that the existing finds and new finds reflect at broader, more extensive low density surface and subsurface scatter across the crest, ridgeline and southern slopes of the study area. The report recommended application for an AHIP for works impacting areas where Aboriginal

objects had been identified or deposits found. Extent provided a predictive model which is presented section 5.5 below.

5.5 Predictive model

A number of predictive models regarding site type locations and frequencies have been formulated for the NSW Central Coast region. These are presented briefly below.

Vinnicombe (1980) surveyed a selection of water catchment areas in the Gosford –Wyong region in order to discern patterns in the locations of different site types. This survey included the Lake Tuggerah catchment area located [redacted] from the study area and investigated by Artefact in 2012. Vinnicombe found that:

- Open middens occur on sand, alluvium, and sandstone; often in protected locations near water.
- Artefact scatters and open camp sites are relatively rare within the region, but may occur on any flat terrain near water.
- Rock shelter sites are found in exposed Hawkesbury sandstone terrain above valley floors or below ridge tops.
- Axe grinding grooves occur within exposures of Hawkesbury sandstone near water.

At the time of Vinnicombe's study, relatively few archaeological surveys had been conducted in the region, and therefore these findings were not conclusive.

Dallas et al (1987) undertook a study of Aboriginal cultural resources throughout Wyong Shire, including a review of ethnographic data, archaeological investigations, and environmental studies. It was observed that the low number of existing archaeological surveys at the time made it difficult to formulate adequate conclusions about the range of cultural resources that could potentially exist in the region.

It was found that the most common site types in the coastal and lake areas were middens, artefact scatters, and scarred trees, while artefact scatters and grinding grooves were most common along creeks. Rock shelters with art and/or deposit were generally located in the foothills and plateaux.

Dallas et al point out that the majority of recorded sites in Wyong Shire are sheltered sites in sandstone areas of the coast and riverine zones, but argue that this concentration of sites may be due to the absence of high impact development and favourable preservation conditions, rather than reflecting true patterns of occupation in the region.

Bonhomme and Buzer (1994) tested four alternative models for subsistence strategy on the NSW Central Coast. These models were:

1. High residential mobility.
2. Seasonally scheduled mobility based within the Central Coast.
3. Seasonally scheduled mobility based outside the Central Coast.
4. Minimal residential mobility based within the Central Coast.

It was concluded that, based on the seasonality, reliability, and distribution of resources in the region, models 2 and 3 were the most applicable models for subsistence strategy, with model 2 providing the most consistent interpretation for the available data.

Extent's (2018: 45) predictive model for the Wyong area suggests that the distribution of Aboriginal sites is influenced by underlying geology and geomorphology in the following manner:

- Axe grinding grooves and rock engravings might be found where sandstone occurs
- Midden sites are likely to occur along the coast or lakeshores
- Artefact scatters are likely to occur on relatively flat, elevated ground and close to water sources (creek lines or wetland/swamps)
- Notwithstanding the above, isolated finds have been discovered in all landforms.

Extent also noted that archaeological evidence has been found in disturbed contexts, such as areas if erosion. Extent suggested that this is due to increased visibility in such areas. However, disturbance caused by land use, including drainage of wetlands and introduced drainage lines such as those that flow into Porters Creek has affected the likelihood of archaeological material to survive over time.

Furthermore, during the Holocene, low lying areas (of less than 10m AHD) would have been wetlands and not suitable for occupation although they would have supported subsistence resources. Areas of higher land adjacent might have been occupied.

The area described by Extent has similarities to the current study area. The land at 11 Warren Road is 10 m or less on contour maps, it is close to the manufactured drainage lines that flow into Porters Creek; it is flat land, not ridgelines, and is highly disturbed by construction activity. Historical imagery of the study area supports the suggestion that A horizon soils have been stripped away.

Figure 14. Extent's (2018:55) predictive model for site located approximately 2.4 km south east. Low archaeological potential in areas of 10 m and less.

IMAGE REMOVED FOR PUBLIC VIEWING

6.0 SITE SURVEY METHODOLOGY

6.1 Aboriginal site definition

An Aboriginal site is generally defined as an Aboriginal object or place. An Aboriginal object refers to any deposit, object or material evidence (not being a handicraft) relating to Aboriginal habitation of the area that comprises New South Wales (DECCW 2010). Aboriginal objects may include stone tools, scarred trees or rock art. Some sites, or Aboriginal places, can also be intangible and although they might not be visible, these places have cultural significance to Aboriginal people.

The Code of Practice states, in regard to the definition of a site and its boundary, that one or more of the following criteria must be used when recording material traces of Aboriginal land use:

- The spatial extent of any visible Aboriginal objects, or direct evidence of their location
- Obvious physical boundaries where present, for example mound site and middens (if visibility is good), a ceremonial ground
- Identification by the Aboriginal community on the basis of cultural information

6.2 Archaeological survey methodology

6.2.1 Site inspection

A site inspection was undertaken on 13 January 2022 by Michael Lever (Heritage Consultant, Artefact and Elizabeth Bonshek (Senior Heritage Consultant, Artefact) and Barry Williams, Corrine Quinlan and Lily Hodgson from the Darkinjung LALC.

The study area is located on the slope of a hill, descending from north to south. It is (at least 10m) above sea level at the north end. The slope has been cut into at the northern end to create a level pad for the construction of the facility. The excavated area on the northern side (Figure 15 and Figure 16) runs along the greater part of the boundary but excludes the entrance driveway and an area at the western edge of the northern boundary. The slope of the hill at the western end appears to have been maintained. The entrance to the site also follows a slope, with drive way descending into the site (Figure 17).

Approximately 12.899 ha of the site is covered in buildings, roads, carparks and infrastructural elements (fire tanks etc) (

Figure 18,

Figure 19 and Figure 21). The carparks cover approximately 2.66 ha (located on the eastern side of the study area). Within the carparks are landscaped areas, including well maintained grassy lawns, smalls plants and grasses (Figure 20 and Figure 22). Areas of exposed soil were few, with exception of areas in which landscaping vegetation had been planted. There was no naturally occurring, or remnant vegetation in these areas. Comparison with historical images (Figure 11 and Figure 12) reveal a disturbed landscape as the result of earthworks and subsequent reconstruction/landscaping.

No artefacts were found in these areas.

The perimeter of the site (approximately 2 km) was landscaped. A drainage loop has been constructed in an inner ring around the perimeter of the site, and this constructed area was planted with bullrushes

and swamp plants (Figure 23 and Figure 24). Drainage pools have been constructed at the south end of the study area, referred to as "the swamp" (

Figure 25). This area probably feeds into the drainage systems constructed south of the study area (Figure 7).

Figure 15. View of cut into slope, rear of fire tanks, northern boundary.

Figure 16. View of cut into slope (detail) rear of fire tanks, northern boundary. Topsoil evident here.

Figure 17. View to entrance of the site from bottom of drive, norther side.

Figure 18. View from entrance of warehouse looking to hardstand areas. Image 97

Figure 19. Fire tanks at north end of site. Image 100

Figure 20. Grasses and ground cover typical of the landscaped areas in carpark at southern end (east side) of the site. Image 176.

Figure 21. View of east side of facility with landscaped area to right side. Image 118

Figure 22. View of tended grass lawn on west side of warehouse with planted trees

Figure 23. Drainage supporting bullrushes on western side of warehouse. Image 152

Figure 24. View towards western perimeter of study area, with bullrushes of figure 16 in foreground. Line of fire hydrants in middle to rear view. Image 153.

Figure 25. Constructed drainage ponds, referred to as the "Swamp".

Figure 26. Patches of blue metal demonstrating imported fill.

Figure 27. Sandy patches in northwestern section.

Figure 28. Sandy patches to foreground, behind drainage channel indicated by tall grasses.

Figure 29. Exposed stone in north west section.

The construction of the fire ring security system has further disturbed the site, and on the western side of the study area, in addition to the drainage line, soil has been formed into an extensive mound running on a north/south axis almost in parallel to the boundary (Figure 24) and hydrants placed in a row along its length in the centre of the mound.

These works, in conjunction with the historical images, demonstrate that the ground has been disturbed.

Ground visibility overall was low (5%) as all open areas were landscaped and well maintained with grass lawn and plantings. Blue metal was seen in a few patches (

Figure 26) but areas in the northern section also demonstrated the presence of sandy soil (Figure 27 and

Figure 28). Rock was exposed in places (Figure 29).

The northern-eastern corner of the study area (Figure 30) appeared to present a continuation of the slope extending southwards from the property on the north side of the study area. Some young trees were standing in this area: one was pointed out by the Darkinjung LALC as being of cultural significance (tree located to left of image in Figure 30) because this type of tree provided resources to Aboriginal communities and was suggested to be of some age. The position of this tree within the study area is shown in Figure 31.

A stand of trees is visible in the north of the study area in historical images (Figure 11 and Figure 12) and suggest that these predate the current facility at the least.

No artefacts were found in this area.

While top soil is present on the east end of the northern boundary, this may be not be original and may be redeposited. The presence of a tree which holds significance to the Darkinjung LALC as an example of the resources used by Aboriginal people give this area cultural significance.

No artefacts were found in the study area.

Figure 30. Tree identified by Barry Williams (Darkinjung LALC) as of significance due to its age.

Figure 31. Location of cultural tree in study area.

Document Path: D:\GIS\GIS_Mapping\21052_Metro_West_Stage2\MXD\Pyrmont Station ARDEM\Cultural tree.mxd

6.2.2 Aims of archaeological survey

The aims of the archaeological survey were to:

- Inspect the ground surface of the site
- Record any surface or potential subsurface Aboriginal sites that have not been recorded in AHIMS
- Identify areas of PAD that may be present in areas that have had no or minimal disturbance
- Collect information to ascertain whether further archaeological investigation is required.

Results

Archaeological potential is closely related to levels of ground disturbance in the area. Other factors are also taken into account, such as whether artefacts were located on the surface, and whether the area is within a sensitive landform unit according to the predictive statements for the area. The potential for discovering artefacts lies in landforms which have been subject to a light to moderate disturbance.

In summary, the study area was assessed as having nil-low archaeological potential based on the following:

- no artefacts were found across the study area
- the study area was heavily disturbed by earthworks to provide for the construction of a warehouse facility and associated infrastructure including truck and carparks, landscaping and the introduction of a man-made swamp to manage drainage
- the historical images show that the site was heavily disturbed during the construction of the current facility
- while the north-western portion of the study appears to present a landform feature consisting of a continuous slope ascending into the neighbouring property, the ground has been heavily disturbed and soil redeposited.

The predictive model for the region indicates that sites may occur on slopes above 10m and in disturbed soils - including eroded areas - but are unlikely to be found in swampy or waterlogged area and areas under 10m above sea level. However, the soils of the study area have been redistributed across the site and into that of the neighbouring site, representing a massive level of destruction. Previous archaeological investigation of three sites (AHIMS site, [redacted] AHIMS [redacted] and AHIMS [redacted] [redacted] to the study area, has revealed that the artefacts were found in fill, composed of soil removed from the study area.

With such extensive impacts on the ground surface as represented by the historical images, it is unlikely that if any artefacts were found subsurface, that these would be discovered *in situ*, and as such the study area is assessed as having nil to low archaeological significance.

Therefore, no further archaeological investigation is recommended.

A tree located in the north-west corner of the study area was identified as being a valuable resource for Aboriginal people and so holds cultural significance for the Darkinjung LALC.

6.3 Archaeological survey coverage

The study area was covered in one survey unit. The area surveyed excluded the swamp and the fire access trail, and an area which was fenced off.

Table 5 presents a summary of the level of visibility and exposure at the site---- to determine the effective coverage of the study area and takes into consideration the effective coverage of the landform. Effective coverage was 79%. Ground surface visibility was 5%.

The Landform survey coverage is presented in (Table 6): effective coverage of the land form was 78% surveyed.

Table 5. Effective survey coverage

Survey unit	Landform	Survey unit area (sq. m)	Visibility (%)	Exposure (%)	Effective coverage area (sq. m)	Effective coverage (%)
1	Slope	102,410	10	10	81,051	79.1

Table 6. Landform survey coverage

Landform	Landform area (sq. m)	Area effectively surveyed (sq. m)	% of landform effectively surveyed	Number of sites identified
Slope	103,410	81,051	78	0

7.0 SIGNIFICANCE ASSESSMENT

7.1 Significance assessment methodology

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. *The Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) provides guidelines for heritage assessment with reference to the *Burra Charter* (Australia ICOMOS 2013). The assessment is made in relation to four values or criteria (Table 7). In relation to each of the criteria, the significance of the subject area should be ranked as high, moderate, or low.

Cultural heritage consists of places or objects, that are of significance to Aboriginal people. Cultural heritage values are the attributes of these places or objects that allow the assessment of levels of cultural significance.

Assessing the cultural significance of a place or object means defining why a place or object is culturally important. It is only when these reasons are defined that measures can be taken to appropriately manage possible impacts on this significance. Assessing cultural significance involves two main steps, identifying the range of values present across the study area and assessing why they are important.

Social/cultural heritage significance should be addressed by the Aboriginal people who have a connection to, or interest in, the site. As part of the consultation process the Aboriginal stakeholders were asked to provide information on the cultural significance of the study area. Information on consultation with Aboriginal stakeholders for the project is provided in Section 3.1.

Table 7. Burra Charter Heritage significance criteria

Criterion	Description
Social	The spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them. Does the subject area have strong or special association with the Aboriginal community for social, cultural or spiritual reasons?
Historic	Historic value refers to the associations of a place with a historically important person, event, phase or activity in an Aboriginal community. Is the subject area important to the cultural or natural history of the local area and/or region and/or state?
Scientific	This refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information. Information about scientific values will be gathered through any archaeological investigation carried out. Does the subject area have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state?
Aesthetic	This refers to the sensory, scenic, architectural and creative aspects of the place. It is often linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use. Is the subject area important in demonstrating aesthetic characteristics in the local area and/or region and/or state?

In addition to the four criteria, Heritage NSW (OEH 2011; 10) requires consideration of the following:

- Research potential: does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- Representativeness: how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- Rarity: is the subject area important in demonstrating a distinctive way of life, custom, process, land use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Education potential: does the subject area contain teaching sites or sites that might have teaching potential?

7.2 Socio/cultural significance

Socio/cultural heritage values should be addressed by Aboriginal people who have a connection to, or interest in, the area.

The consultation process did not reveal particular socio/cultural heritage values relating to the study area.

7.3 Historic significance

Historic values refer to the association of place with aspect of Aboriginal history. Historic values are not necessarily reflected in physical objects, but may be intangible and relate to memories, stories, or experiences.

One RAP referred to a significant history of impact in the Warnervale area.

7.4 Scientific significance

Scientific values refer to a site's potential to contribute to our current understanding and information. As there are no archaeological values in the site, there is no scientific significance.

Table 8: Scientific significance assessment

Site Name (AHIMS ID)	Research potential	Representativeness	Rarity	Education potential	Overall significance assessment
No AHIMS sites	None	None	None	None	None

7.5 Aesthetic significance

Aesthetic values refer to the sensory, scenic, architectural, and creative aspects of the place. These values may be related to the landscape and are often closely associated with social/cultural values.

The consultation process did not reveal particular aesthetic values relating to the study area.

7.6 Statement of significance

The consultation process did not reveal particular socio/cultural, historic, or aesthetic heritage values relating to the study area. One RAP commented on the significant history of impact in the area.

As there are no archaeological values in the site, there is no scientific significance.

8.0 AVOIDING AND MINIMISING HARM

8.1 Proposed works

The proposed extensions to the current facility and hardstand areas will push the working area of the facility to towards the cadastral boundaries on all sides of the study area. Areas of extension are represented in grey (building extension) and dark grey (hardstand extensions) (see Figure 5).

8.2 Impact assessment methodology

The definition of harm to an object or place under the NPW Act includes any act or omission that 'destroys, defaces or damages the object or place or in relation to an object –moves the object from land on which it had been situated.'

Direct harm may occur as a result of activities which disturb the ground surface including site preparation activities, earthworks and ground excavation, and the installation of services and infrastructure.

Indirect harm for Aboriginal heritage refers to impacts that may affect sites or features located immediately beyond or within the area of the proposed works. Indirect harm may include impacts from vibration, increased visitation, or increased erosion, including ancillary project activities (construction and/or operation) that are not located within the study area.

8.3 Aboriginal heritage impact assessment

There were no Aboriginal objects identified in the survey area, and no sites identified in the AHIMS database. This report has assessed that intact archaeological deposits are not likely to be present below the ground surface. Therefore, the proposal is unlikely to impact any Aboriginal archaeology.

A tree in the north west corner of the study area was identified as a cultural resource by the site officer Barry Williams, Darkinjung LALC. The tree is not located in an area of impact and would be conserved.

8.4 Ecological Sustainable Development principles

In accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales*[1], the principles of ecologically sustainable development have been considered in preparation of this Aboriginal heritage assessment, including options to avoid impacts to Aboriginal cultural heritage, assessment of unavoidable impacts, identification of mitigation and management measures, and taking account of Aboriginal community views. The principles of ecologically sustainable development are detailed in the NSW *Protection of the Environment Administration Act 1991*. Principles of ecologically sustainable development relevant to the assessment of the project as it relates to Aboriginal cultural heritage are considered below.

[1] Office of Environment and Heritage 2011

8.4.1 The integration principle

Decision making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the 'integration principle'). The preparation of this ACHAR demonstrates regard for the integration principle by considering Aboriginal heritage values and impacts to these from the proposal during the planning phase. The nature of the proposal is in itself one that contributes to the long term economic and social needs of current and future residents of the area.

8.4.2 The precautionary principle

If there are threats of serious or irreversible environmental damage, lack of full scientific confidence should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle').

As no archaeological sites were identified in the study area, no further archaeological investigation is recommended.

8.4.3 The principle of intergenerational equity

The proposed works would adhere, as close as possible, to the principle of intergenerational equity by collating scientific and cultural information on former Aboriginal occupation of the study area through the previous investigations and this ACHAR.

This report has assessed that no further archaeological investigations through test excavations need be conducted. However, see Unexpected Finds below.

8.5 Cumulative impacts

A cumulative impact is an impact on Aboriginal cultural heritage resulting from the incremental impact of the action/s of a development when added to other past, present and reasonably foreseeable future actions.

A draft of the ACHAR was provided to RAPS for commentary and feedback on 3 March 2022. RAPS did not provide any additional information with respect to the cumulative impacts.

9.0 MANAGEMENT AND MITIGATION MEASURES

9.1 Ongoing consultation with registered Aboriginal parties

Consultation with the registered Aboriginal parties is continuing. Following the Unexpected finds policy below, consultation with Aboriginal parties will continue at completion of the ACHAR and also according to the results of the consultation process which is currently ongoing.

9.2 Unexpected finds

An unexpected finds policy would be implemented in the event of any unexpected finds of Aboriginal sites, objects, or archaeological deposits being identified during construction.

An unexpected archaeological finds policy would involve the following actions:

- Stop work within the affected area, protect the potential archaeological find, and inform environment staff or supervisor
- Contact a suitably qualified archaeologist to assess the potential archaeological find
- If Aboriginal archaeological material is identified, works in the area should cease, and NSW Heritage should be informed. Further archaeological mitigation may be required prior to works recommencing
- If human remains are found:
  - Immediately cease all work at the particular location
  - Notify site manager and project archaeologist
  - Notify NSW Police
  - Notify Heritage NSW on the Environment Line 131555 as soon as practicable and provide details of the remains and their locations
  - Notify the Darkinjung LALC

10.0 CONCLUSIONS AND RECOMMENDATIONS

The following results and recommendations are based on consideration of:

- The requirements of Aboriginal heritage guidelines including:
  - *The Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010a) – known as *The Code of Practice*
  - Guide to investigating and assessing and reporting on Aboriginal Cultural Heritage in New South Wales (OEH 2011) – known as ACHAR guidelines.
  - *The Aboriginal Cultural Heritage consultation requirements for proponents 2010* (OEH 2010b)- known as Consultation Guidelines)
- Project SEARs
- the results of the stakeholder consultation
- extensive search of the AHIMS database
- in depth background research and assessment following an archaeological survey.

The assessment found that:

- no sites listed on the Aboriginal Heritage Information Management System (AHIMS) were discovered in the study area
- no previously unrecorded Aboriginal sites or objects were identified within the study area during the site inspection
- the study area was heavily disturbed by earthworks to provide for the construction of a warehouse facility and associated infrastructure including truck and carparks, landscaping and the introduction of an artificial swamp to manage drainage
- examination of the historical images show that the site was heavily disturbed during the construction of the current facility
- the study area was assessed as having nil to low potential to retain intact archaeological deposits that may contain Aboriginal objects
- a tree located in the north-west corner of the study area was identified as being a valuable resource for Aboriginal people and so holds cultural significance for the Darkinjung LALC.
- consultation with RAPS did not reveal particular socio/cultural, historic, or aesthetic heritage values relating to the study area
- one RAP commented on the significant history of impact in the area.
- As there are no archaeological values in the site, there is no scientific significance.

Recommendations

Based on the results of this assessment and in accordance with Aboriginal heritage guidelines mandated in the SEARs for the proposal, the following recommendations are made:

- As the study area was found to be disturbed and to have a nil-low potential for Aboriginal objects to be located within it, it is recommended that further archaeological assessment is not required.
- The tree identified as a cultural resource will not be impacted by the proposal.
- The result of the consultation supports the archaeological assessment of the study area as holding nil-low potential for the preservation of Aboriginal heritage.
- If changes are made to the proposal that may result in impacts to areas not assessed by this ACHAR further assessment would be required.
- Unexpected Aboriginal objects remain protected by the *National Parks and Wildlife Act 1974*. If any such objects, or potential objects, are uncovered in the course of the activity, all work in the vicinity should cease immediately. A qualified archaeologist should be contacted to assess the find and Heritage NSW and Darkinjung LALC must be notified.
- If human remains, or suspected human remains, are found in the course of the activity, all work in the vicinity should cease, the site should be secured, and the NSW Police and Heritage NSW should be notified.

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12.0 APPENDIX

12.1 Consultation Log and Documents

Removed for Public Viewing.

artefact

Artefact Heritage

ABN 73 144 973 526
Suite 56, Jones Bay Wharf
26-32 Pirrama Road
Pyrmont NSW 2009 Australia

+61 2 9518 8411
office@artefact.net.au
www.artefact.net.au