

The New Primary School at Gregory Hills

Due Diligence Report

School Infrastructure New South Wales

1 November 2022

Revision no: 03.1



Executive Summary

Jacobs has been engaged by School Infrastructure NSW (SINSW) to undertake Due Diligence for Aboriginal cultural heritage for the new primary school at Gregory Hills. This project is being assessed as a State Significant Development.

The new primary school at Gregory Hills is located in southwest Sydney, within the development area formerly known as Turner Road Precinct. Turner Road was one of the first land release precincts in the Southwest Growth Area. In order to facilitate timely development of the region, the then NSW state government looked at ways to streamline environmental and heritage approvals for the precinct.

Accordingly, an Aboriginal Heritage Impact Permit (AHIP No. 1101808) was issued with conditions on 2 July 2009 to allow protection to certain Aboriginal objects within the precinct and harm to other Aboriginal objects with appropriate management and mitigations for that harm. The AHIP is due to expire on 30 June 2023 and is currently held by Dart West (the developer). It allows harm to all Aboriginal objects in, on or under the land within the AHIP area.

SINSW are about to commence the design for the new primary school at Gregory Hills Public School and want to ensure that harm to Aboriginal objects will not occur as a result of this development.

Industry specific SEARs for the project were issued on 27 April 2022 and amended on 1 November 2022. SEAR No. 18 requires an Assessment of Aboriginal Cultural Heritage to support this application

In a meeting on 1 March 2022, Heritage NSW provided advice to SINSW that as AHIP No. 1101808 currently exists over the area of the new primary school at Gregory Hills, a form of Due Diligence would be acceptable to demonstrate that the potential of this project to harm Aboriginal objects has been fully considered. In this instance only, there would be no requirement to undertake a new assessment of the project area. The assessment and consultation that supported AHIP No. 1101808, as well as the AHIP itself, when appended to the Due Diligence, should be sufficient to address the requirements of SEAR No. 18. Heritage NSW emphasised that this approach is specific to the new primary school at Gregory Hills and is only appropriate here because AHIP No. 1101808 is currently valid.

This Due Diligence report was undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (Department of Environment, Climate Change & Water (DECCW) 2010; hereafter the Due Diligence Code of Practice), within the legislative context of the National Parks and Wildlife Act 1974 (NPW Act). The details of this assessment are derived from desktop research, a search and review of the Aboriginal Heritage Information Management System (AHIMS) maintained by Heritage NSW and a visual inspection of the study area.

The purpose of due diligence is to

- Identify whether Aboriginal objects are, or are likely to be, present in an area,
- Determine whether proposed activities are likely to harm Aboriginal objects if they are present and
- Determine whether an AHIP must be in place prior to the commencement of activities.

This Due Diligence report finds that the proposed project area does not contain, and is not likely to contain, any Aboriginal objects.

As an AHIP currently exists that applies to the Gregory Hills Public School project area, no further Aboriginal cultural heritage assessment actions are required. It is assessed that the proposed works can proceed with caution, as long as all works undertaken do not contravene the conditions of AHIP No. 1101808.

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Acronyms and abbreviations

Acronym and abbreviations	Description
AHIMS	Aboriginal Heritage Impact Management System
AHIP	Aboriginal Heritage Impact Permit
CHMP	Cultural Heritage Management Plan
Due Diligence Code of Practice	Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales
EP&A Act	Environmental Planning and Assessment Act 1979
SEAR	Secretary's Environmental Assessment Requirements
NPW Act	National Parks and Wildlife Act 1974

1. Introduction

1.1 Purpose

This Due Diligence Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), in support of a State Significant Development Application (SSDA) for the construction and operation of a new primary school at Gregory Hills (SSD-41306367).

This report addresses the Secretary's Environmental Assessment Requirements (SEARs) issued for the project. SEARs were issued for this project on 27 April 2022 and amended on 1 November 2022. The original SEARs issued on 27 April 2022 did not require consultation with Aboriginal communities and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Department of Environment, Climate Change & Water [DECCW] 2010; hereafter the Due Diligence Code of Practice) (DECCW 2010) does not require any consultation with Aboriginal communities. Accordingly, this Due Diligence report was not provided to Aboriginal communities for consultation.

The amended SEARs issued on 1 November 2022 included a new clause requiring evidence of consultation with Aboriginal communities (reproduced in Table 1 below).

It should be noted that although consultation specific to this Due Diligence has not occurred, a Cultural Heritage Management Plan (CHMP) has been developed for the project. Aboriginal community consultation has occurred for the CHMP; a summary of which is provided in the table below.

Table 1 Relevant SEARs for this project

SEAR No.	Requirement	Response
18	<p>Provide an assessment of Aboriginal cultural heritage, prepared in accordance with relevant sections of the current guidelines, identifying, describing and assessing potential impacts to Aboriginal cultural heritage sites or values associated with the application.</p> <p>Provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing and selecting options and mitigation measures (including the final proposed measures), in accordance with relevant sections of current guidelines.</p>	<p>This Due Diligence report is prepared to support AHIP No. 1108101. This AHIP is currently active and applies to the area of the proposed new primary school.</p> <p>The CHMP prepared for the project (Jacobs 2022) has included Aboriginal community consultation. Additionally, a Connecting with Country program has been undertaken for this project, which has also involved close engagement with and participation of appropriate knowledge holders for this area. Details of this process are provided in the CHMP. While no responses were received from RAPs on the CHMP, any responses from RAPs and other Aboriginal community members are welcome at any stage of the project. The CHMP is intended to have a biannual review and will be updated until the completion of ground disturbance works. Any additional comments and inputs will form part of that review and update.</p>
19	<p>Where there is potential for direct or indirect impacts on the heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated.</p>	<p>There is no potential for direct or indirect impacts on the heritage significance or environmental heritage.</p>

Due Diligence for this project has been undertaken in accordance with the Due Diligence Code of Practice (DECCW 2010). The Due Diligence Code of Practice sets out the matters which are to be addressed when assessing whether an activity will harm, or has a likelihood of harming, Aboriginal objects. Activities that would or are likely to harm Aboriginal objects require an AHIP, which would need to be supported by additional Aboriginal cultural heritage assessment actions.

The Due Diligence Code of Practice sets out reasonable and practicable steps which must be followed to:

- Identify whether Aboriginal objects are, or are likely to be, present in an area
- Determine whether proposed activities are likely to harm Aboriginal objects if present
- Determine whether an AHIP must be in place prior to the commencement of activities.

Consultation with the Aboriginal community is not a formal requirement of the Due Diligence process, however, consideration of undertaking some form of consultation should occur, particularly if it will assist in informing any decision-making. If an AHIP will be required, consultation must be undertaken in accordance with the requirements of Section 60 of the *National Parks and Wildlife Regulation 2019*, as described in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010).

1.2 What is Due Diligence

The *National Parks and Wildlife Act 1974* (NPW Act) establishes the strict liability offence of harming Aboriginal objects where they were not known to be present. The Due Diligence process was established to provide a defence to this offence. Therefore, Due Diligence is a legal defence against prosecution where Aboriginal objects are harmed when it was reasonably considered that they would not be present. In effect, following a due diligence process amounts to taking reasonable and practicable steps to protect Aboriginal objects.

The determination of whether Aboriginal objects are present or are likely to be present can be made by following the Due Diligence Code of Practice, in situations where it is appropriate and applicable to do so. Undertaking Due Diligence will allow the identification of where Aboriginal objects are, or are likely to be, whether the proposed activity is likely to harm those objects and determine whether an AHIP is required prior to the commencement of that activity.

Undertaking the Due Diligence does not constitute consent to harm Aboriginal objects, nor is it a 'site clearance' mechanism to allow activities to occur in an area where Aboriginal objects are likely or known to be present. If it is known or considered likely that Aboriginal objects are present, a full assessment must be undertaken and an AHIP granted prior to that activity taking place.

1.3 Appropriateness of the use of Due Diligence for this report

This project is being under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act). It has been determined that it is appropriate to undertake a Due Diligence assessment for these proposed works by following the flowchart on Page 1 of the Due Diligence Code of Practice (DECCW 2010), as shown in Table 2.

Table 2 Determination of the suitability of employing a Due Diligence process for this activity

Question	Answer	Comment
Is the activity considered a Major Project under Part 4, Division 4.7 or Part 5, Division 5.2 of the EP&A Act?	Yes	While it is not appropriate to undertake Due Diligence for this project, the process has been undertaken to identify what actions, if any, are required to adequately protect and manage cultural heritage for the project. However, it should be noted that AHIP no 1101808 exists over the area of the Turner Road South precinct, which includes the project area. This AHIP allows harm to all Aboriginal objects located in, on or under the land in the project area.
Is the activity exempt from the <i>National Parks and Wildlife Act 1974</i> or <i>Regulation 2019</i> ?	No	No exemptions apply to this activity.
Will the activity involve harm that is trivial or negligible?	No	Examples of trivial or negligible harm include picking up and replacing a stone artefact, crushing or breaking a stone artefact while gardening or walking or similar activities. This does not apply to this activity.
Is the activity in an Aboriginal Place or there are known Aboriginal objects in the project area?	No	There are no known Aboriginal Places or known Aboriginal objects within the activity area.

Question	Answer	Comment
Is the activity a low impact activity in accordance with the <i>National Parks and Wildlife Regulation 2019</i> ?	No	The activity is not considered a low impact activity.
Do you want to follow an industry specific Code of Practice?	No	There is no industry specific Code of Practice applicable.
Follow the Due Diligence Code of Practice	Yes	Follow and comply with this code to determine the appropriate course of action for this activity.

1.4 Aboriginal cultural values

This report addresses the archaeological potential for Aboriginal objects and places only. It does not include formal consultation with any Aboriginal groups or individuals; therefore, it does not include input from potential Aboriginal stakeholders or cultural knowledge-holders. This due diligence does not include an assessment of Aboriginal cultural values associated with the proposed works area.

1.5 Authorship

This report was authored by Jake Ferguson (Graduate Archaeologist, Jacobs) with management input and technical review by Fran Scully (Principal Archaeologist).

2. Project Information

2.1 Project background

Gregory Hills is located in southwest Sydney, within the development area formerly known as Turner Road South. Turner Road was one of the first land release precincts in the South West Growth Area and as such, NSW state government looked at ways to streamline environmental and heritage approvals for the precinct.

A number of assessments were undertaken for the Aboriginal heritage assessments for the Turner Road Precinct. They involved extensive archaeological investigations and consultation with a wide range of Aboriginal groups. The work was undertaken from 2007 to 2009 (Jo McDonald Cultural Heritage Management, 2007, Appendix A). This work informed a planning response to Aboriginal heritage matters, including the identification of sites of significance, detailed documentation of the site history, determination of cultural heritage values and establishment of an Aboriginal heritage protection area.

Following on from these assessments, an Aboriginal Heritage Impact Permit (AHIP No. 1101808) was issued with conditions on 2 July 2009 to Dart West Developments to enable development to proceed (Appendix B). The AHIP contained a range of conditions that ensured protection of certain Aboriginal objects and harm to all other Aboriginal objects with appropriate management and mitigations for that harm. The AHIP is due to expire on 30 June 2023.

Two registered Aboriginal objects (AHIMS 52-2-3561 and 52-2-3559) and an area of land (TR1) were identified for protection from harm, neither of which are located within the sites area.

2.2 Site Description and Location

The site is located in Dharawal Country at 28 Wallarah Circuit, Gregory Hills NSW 2557, and is legally described as Lot 3257 DP1243285.

The site is located within the Camden Local Government Area and is within the Turner Road Precinct of the South-West Growth Centre.

The site has an area of approximately 2.926ha (by Deposited Plan). This will be reduced to 2.907ha under approved DA2022/742/1 once Long Reef Circuit has been widened.

Topography is minimal with a fall from the south-east corner (RL116.5) to the north- west corner (RL113).

The site has three (3) street frontages:

- Wallarah Circuit (southern boundary)
- Gregory Hills Drive (northern boundary)
- Long Reef Circuit (eastern Boundary)

The site is primarily vacant land, with the exception of an existing group of trees that have been retained in the southwest corner of the site that pre-date the subdivision and development of the precinct. There is also an existing electrical substation located on the south-eastern boundary.

There are easements of varying widths located to the northern boundary identified for drainage.

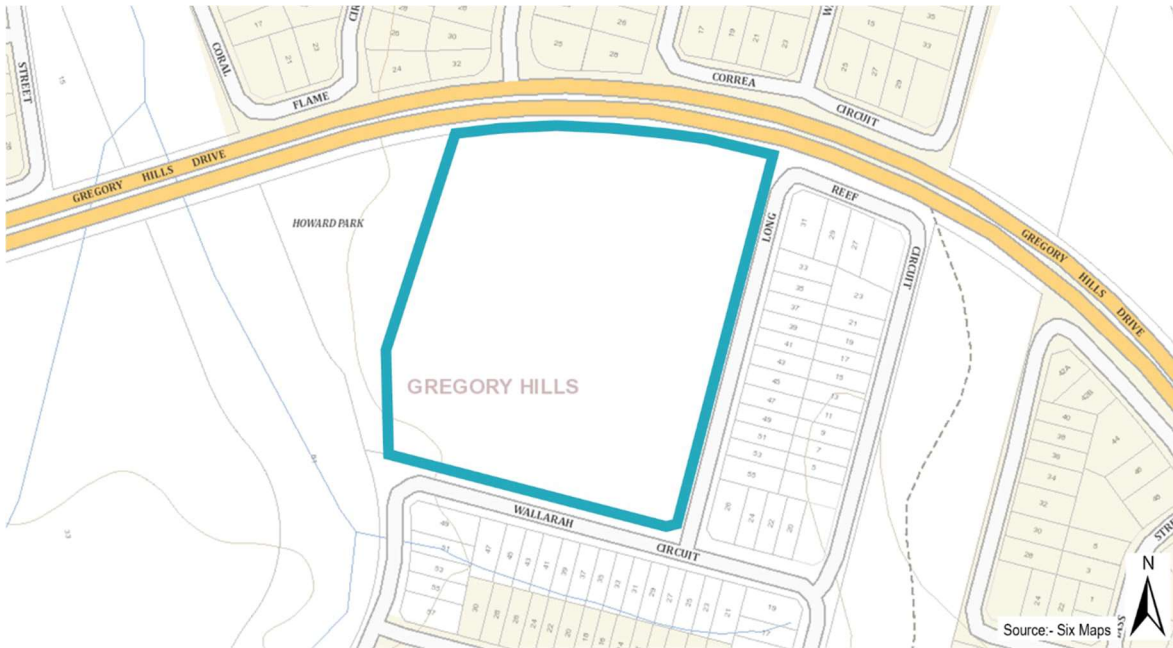


Figure 1 Locality Map (Six Maps)



Figure 2 Site Aerial Map (Source Bennett and Trimble)

2.3 Surrounding Development

To the north, east and south of the site is emerging and recently completed residential development.

To the east of the residential area fronting Long Reef Circuit are high voltage power lines within an easement which include pedestrian paths and cycleways.

To the west of the site, beyond Sykes Creek and Howard Park, is the Gregory Hills town centre. A pedestrian bridge links Wallarah Circuit with the town centre across Sykes Creek.



Figure 3 Surrounding Development (Nearmap)

2.4 Proposed project activity

The proposal is for a new primary school at Gregory Hills that generally comprises the following:

- 44 General Learning Spaces.
- 4 Support Learning Spaces.
- Administration, staff hub, amenity and building service areas.
- Library, communal hall and canteen.
- Outside School Hours Care (OSHC) services.
- Sport courts, outdoor play space, a Covered Outdoor Learning Area (COLA) and site landscaping.
- Dedicated bicycle and scooter parking.
- Three (3) kiss and drop spaces for Supported Learning Students (SLS) located on Wallarah Circuit.
- On-site car parking.
- Signage.
- Footpath widening on Wallarah Circuit.



Figure 4 New School – Site Plan (source Bennett and Trimble)

3. Legislation

3.1 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act) protects Aboriginal heritage within New South Wales (NSW).

An 'Aboriginal object' is defined in Section 5(1) of the NPW Act in the following way:

Aboriginal object means 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.

An 'Aboriginal place' is a place gazetted by the Minister, under Section 84 of the NPW Act:

The Minister may, by order published in the Gazette, declare any place specified or described in the order, being a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture, to be an Aboriginal place for the purposes of this Act.

Protection of Aboriginal heritage is outlined in Section 86 of the NPW Act as follows:

- "a person must not harm or desecrate an object that the person knows is an Aboriginal object" (Section 86(1))
- "a person must not harm an Aboriginal object" (Section 86(2))
- "a person must not harm or desecrate an Aboriginal place" (Section 86(4))

Harm is defined in Section 5 of the NPW Act as:

Any act or omission that destroys, defaces, or damages the object or place, or – in relation to an object – moves the object from the land on which it had been situated.

Section 87(1) of the NPW Act provides that it is a defence to these provisions if the harm is authorised by an AHIP.

Section 87(2) of the NPW Act provides that it is a defence to the provisions of Section 86(2) if the defendant exercised due diligence to determine whether an Aboriginal object would be harmed, and reasonably determined that no Aboriginal object would be harmed. That is, a proponent could be found not guilty of the strict liability offence if they can demonstrate that they undertook all reasonable steps to investigate the likelihood of Aboriginal objects and places being present and harmed by the proposed activity.

Due Diligence does not provide a defence to the offence of knowingly harming an Aboriginal object (offences that contravene Section 86(1)).

3.2 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (NSW; EP&A Act) regulates environmental planning and assessment of NSW. Land use planning requires that environmental impacts are considered as part of the environmental approval assessment for any development. This includes impact or likely impacts to Aboriginal cultural heritage.

This project is being determined under Part 4 of the EP&A Act 1979. A Development Application (DA) will be submitted to Camden Council, who will be the consent authority for the project.

4. Register Searches

Aboriginal objects are recorded on the Aboriginal Heritage Impact Management System (AHIMS) and Aboriginal Places on the Aboriginal Place Atlas. Items of state heritage significance for Aboriginal and shared heritage values are recorded on the State Heritage Inventory.

4.1 AHIMS search

An extensive search of the AHIMS database was undertaken by Jake Ferguson, Graduate Archaeologist on 22 June 2022.

It should be noted that the AHIMS database does not represent an exhaustive list of all Aboriginal objects in NSW. Rather, Aboriginal objects are recorded on AHIMS once they have been identified, usually as a result of an assessment process. A lack of recorded Aboriginal objects within a particular area does not necessarily mean that Aboriginal objects will not be present, just that they have not been previously identified and recorded. Heritage NSW has determined that for the purposes of Due Diligence, the results of an AHIMS search are valid for twelve months from the date of the search.

The area surrounding the project area was searched in order to gain information on the archaeological context of the study area and to ascertain whether any previously recorded Aboriginal sites are located within the study area. The details of the AHIMS search parameters are included in Table 3.

Table 3 AHIMS search parameters

Search Criteria	Parameters
Latitude, Longitude	Lat, Long From: -34.031, 150.7723 - Lat, Long To : -34.0221, 150.7878

A total of 8 Aboriginal sites were identified by the extensive AHIMS search (Table 4). The nature of and location of the registered sites reflects 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. AHIMS 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.

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. The distribution of the recorded sites within the AHIMS search area is shown in Figure 5. The results of the AHIMS search are appended in Appendix C.

Table 4 AHIMS search results

AHIMS ID	Site Name	Datum	Coordinates (Zone 56) Eastings	Coordinates (Zone 56) Northings	Site Features
52-2-3561	TR-5	AGD	295536	6232477	Open site – three artefacts found
52-2-3562	TR-6	AGD	295497	6232129	Open site – five artefacts found
52-2-3563	TR-7	AGD	295109	6232857	Open site – two hundred and 57 artefacts found
52-2-3564 T	TR-8	AGD	294955	6232941	Open site – one modified tree (scarred or modified)
52-2-3724	TR1 (Campbelltown)	AGD	295440	6232910	Open site – one hundred and seventy-one artefacts found

AHIMS ID	Site Name	Datum	Coordinates (Zone 56) Eastings	Coordinates (Zone 56) Northings	Site Features
52-2-3727	TR Transect G	GDA	294630	6233120	Open site – one artefact found
52-2-3728	TR Transect H	GDA	295370	6232950	Open site – one artefact found
52-2-3747	CG-OCS-08	GDA	295719	6232719	Open site – one artefact found

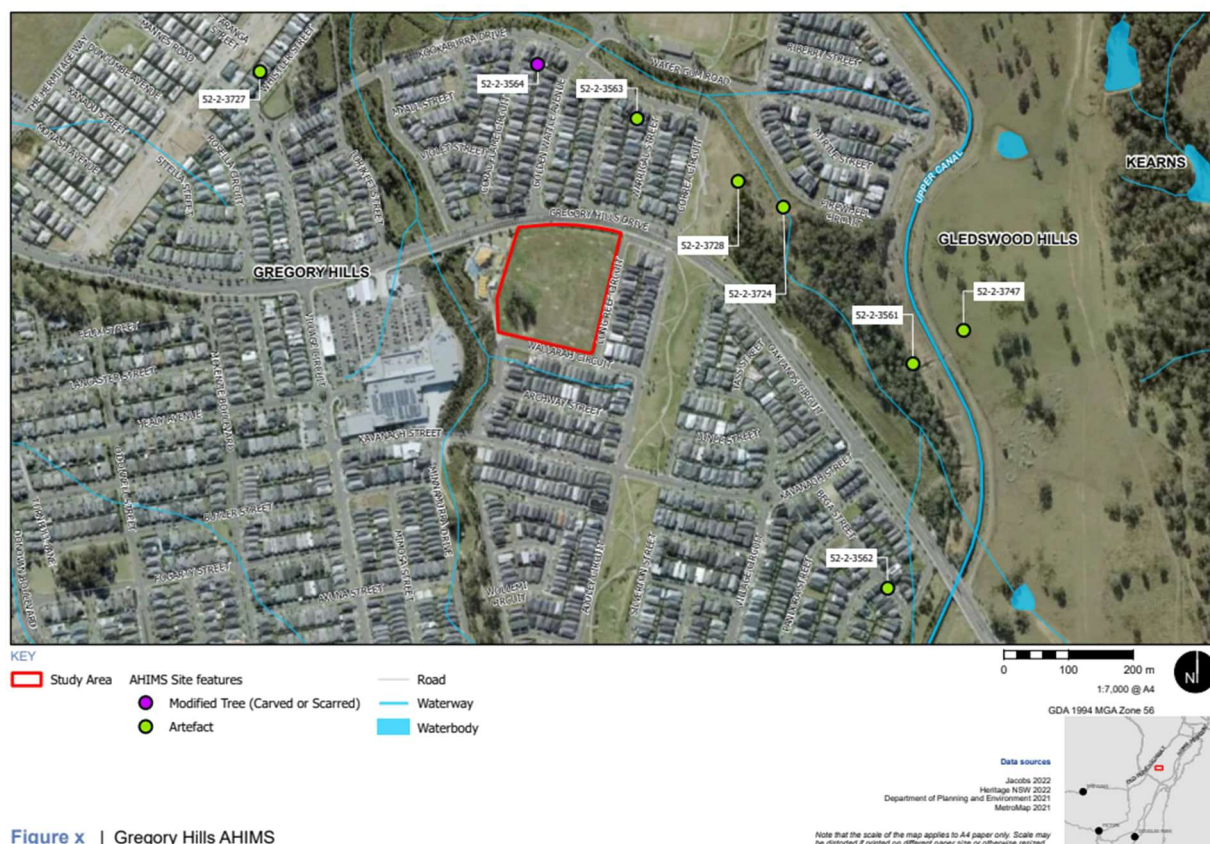
Table 5 Summary of AHIMS site features

Aboriginal Place Type	Frequency	Per cent (%)
Open site – Artefact	7	87.5
Open site – Modified tree (Carved or Scarred)	1	12.5
Total components		100.00

No AHIMS registered sites were located within the study area or within 200 metres of it.

4.2 State Heritage Inventory search

A search of the State Heritage Inventory was completed on 22 June 2022. There are no heritage items registered within the study area.



5. Archaeological Context

5.1 Environmental context

The project area consists of Blacktown and Luddenham soil landscapes, Gregory Hills is defined by gently undulating slopes consistent throughout the entirety of the surrounding landscape of the project area. A large proportion of the study area has been cleared of vegetation for agricultural purposes or more recently for other uses such as residential development.

5.2 Historic land use

The project area can be seen as having high levels of disturbance and landform modification throughout the entirety of the site. Gregory Hills was originally cleared for agricultural purposes; destruction of original vegetation and subsurface layers is typically seen with the introduction of grazing animals such as cattle and sheep. The area has since been reclaimed for the purpose of building residential housing estates, further modifying and disturbing the project area.

5.3 Aboriginal Context

Aboriginal occupation of the Sydney region is likely to have spanned at least 20,000 years, although dates of more than 40,000 years have been obtained from artefacts found in gravels of the Cranebrook Terrace on the Nepean River.

The project area lies close to the boundaries of two language groups, The Darug (Dharug) and the Dharawal (Tharawal). This boundary is heavily influenced by the Nepean River, which is approximately seven kilometres away from the project area.

5.4 Summary of previously completed archaeological assessments

Previous Aboriginal archaeological assessments directly related to the project are outlined below.

Archaeological investigation of the Turner Road and Oran Park Precincts within the South West Growth Centre, Camden, NSW (Jo McDonald 2007, Appendix A).

This report details an archaeological survey of the Turner Road and Oran Park precincts that took place in 2007 as the first step in the cultural heritage assessments for the precincts.

The key findings of the survey are outlined below.

- Survey identified a number of low-density sites across the precincts, characterized of isolated finds and low-density artefacts scatters
- The effect of consistent land use since the late 18th century resulted in a paucity of surface Aboriginal objects
- Early Aboriginal historical documents depicts an area that was considered a boundary between 3 language groups
- In the early 1800s the area had seen many disputes between colonist and Aboriginal people.

Stage 1 Archaeological Test Excavations GCC Precincts Oran Park and Turner Road, South West Growth Centre, NSW (ENSR/AECOM 2008).

Test excavations took place over four Aboriginal heritage conservation areas located within the Oran Park and Turner Road Precincts. At each location a single 25 m long and 1 m wide trench was excavated to the surface of the clay B soil horizon. A total of 744 stone artefacts were recovered, including knapping floor concentrations at two of the sites. Key archaeological findings of the project were:

- A dominance of silcrete artefacts and large unworked chunks of silcrete in association with knapping sites

- Presence of unique white to light grey-brown coloured silcrete artefacts, possibly derived from sources to the south of the Cumberland Plain, found at each of the four sites.
- A great number of artefacts along a minor watercourse at Oran Park

Test excavations demonstrated that archaeologically sensitive areas are more widely dispersed than originally depicted in previous models. The main concentration of Aboriginal sensitivity is in areas with high elevation situated with proximity and vision of watercourses.

Aboriginal Heritage Management Plan Turner Road South Precinct ENSR/AECOM (draft) (2009).

ENSR were commissioned to prepare a management plan to support the AHIP application for Turner Road South. The purpose of the management plan was to guide the ongoing management and mitigation for Aboriginal objects within the precinct, once the AHIP had been approved. The plan found:

- Aboriginal heritage values are shown through the evaluation of previous archaeological investigations of the Turner Road precinct they are as follows
- A pre-contact landscape of extensive but low intensity aboriginal activity with evidence of strategic defensive positioning camp sites within a cultural interaction zone between two language groups.
- Aboriginal activity evident in the widespread stone artefacts present within topsoil up to 300m from major rivers/creeks and 100m from minor watercourses
- Pre-contact artefact manufacturing area evident in stone artefacts concentrations on area with good lookouts over adjacent water courses
- Aboriginal campsites in elevated areas over 150m away from creeks in areas with good outlook over the major creek valleys.

AECOM (2010)

AECOM was engaged by Dart West Developments Pty Ltd to undertake surface collection of stone artefacts from Aboriginal sites within the southern part of the Turner Road Growth Centre, fulfilment of conditions 30, 31, and 32 of the AHIP. The study area was approximately 280 hectares, being approximately 2 km north-south and 2.5 km east-west. Turner Road South was being developed as the Gregory Hills residential township and Central Hills Business Park. The surface collection took place on the 24 July 2009, details of which are in the below table.

Table 0-1 AECOM (2010) salvaged sites

Site	Area of Artefact Cluster(s)	Number of Artefacts	Density (Artefacts per square metre)
TR7 Dam Wall (flat top)	600 m ²	54	0.09
TR7 Dam Floor (Nov 2009)	476 m ²	65	0.14
TR7 Salt Scalds	56 m ²	32	0.57
TR2	755 m ²	8	0.01

The TR7 site displayed the highest density artefact cluster, however this area was still deemed as having low scientific or educational value. The low-density areas indicate that the surface scatter pattern provides inadequate evidence of Aboriginal activity areas within the Gregory Hills area.

6. Site Visit

6.1.1 Timing and Personnel

An inspection of the site was undertaken by Jacobs archaeologists Fran Scully (Principal) and Jake Ferguson (Graduate Archaeologist) on 20 June 2022.

6.1.2 Methodology

A systematic pedestrian survey was completed to inform the completion of the Due Diligence. The methodology depended on the ground conditions encountered in different parts of the activity area. Wherever possible, systematic survey was conducted by each team with field walkers spaced evenly apart at distances of 2 m, traversing the activity area parallel to its boundaries. This enabled excellent coverage, with the understanding that 'in practice, a single field-walker can effectively scan 1 m to either side of them' (Burke and Smith 2004: 65).

6.1.3 Results

The entirety of the project area was inspected by foot. It was largely flat, with a drainage channel along the northern boundary in the south-eastern corner of the project area was a small clump of trees. The trees comprised black box species and are not in good condition. Information from the arborist indicates that the trees are currently sitting a highly acidic soil that is predominantly brick and rubble, demonstrating the high levels of disturbance in the project area. All were inspected for the presence of cultural modification, but none was evident.

Ground surface visibility was moderately good. Although grass cover was extensive across the site, it was quite sparse and patchy in areas. Evidence of gravel, clay and ironstone was seen throughout the project area. Discreet areas of moderately mounded Clay were noted in the project area.

Overall, the study area displayed clear signs of previous and extensive modification. No Aboriginal objects were identified during the inspection, and it is considered highly unlikely that any would still be present.



Figure 6 Entry to site, south east elevation

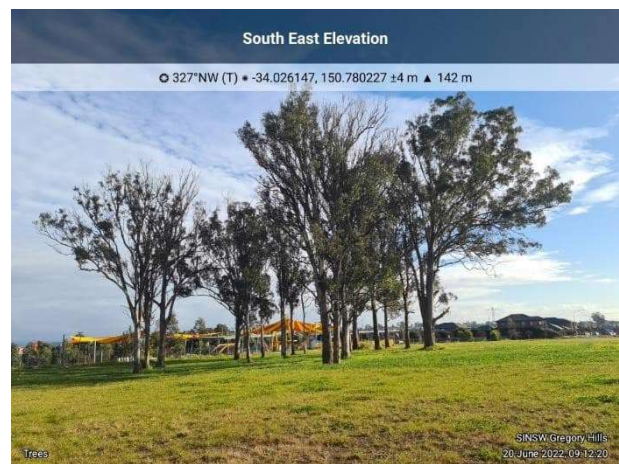


Figure 7 General landscape, north east elevation

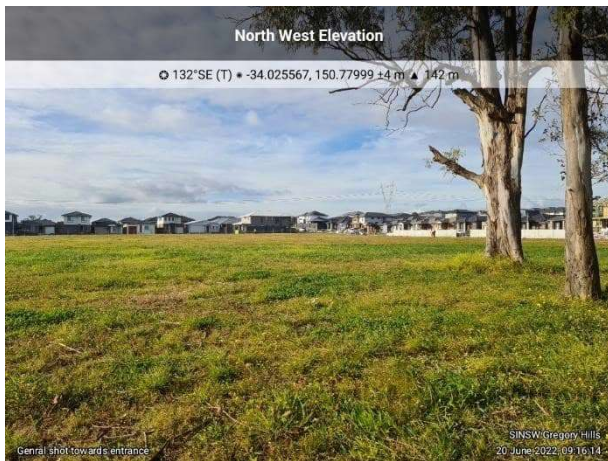


Figure 8 General landscape, north west elevation

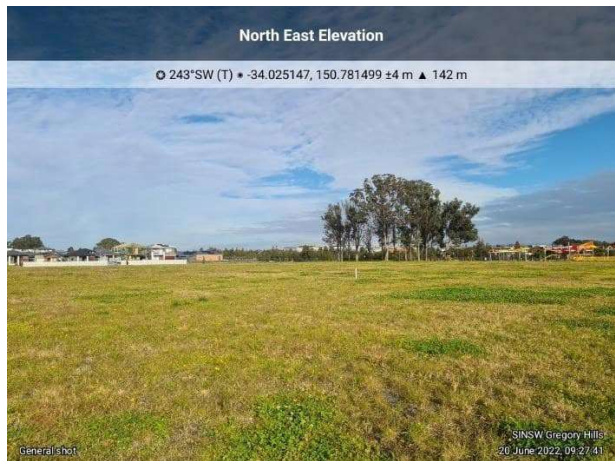


Figure 9 General landscape, north east elevation



Figure 10 Ground surface visibility

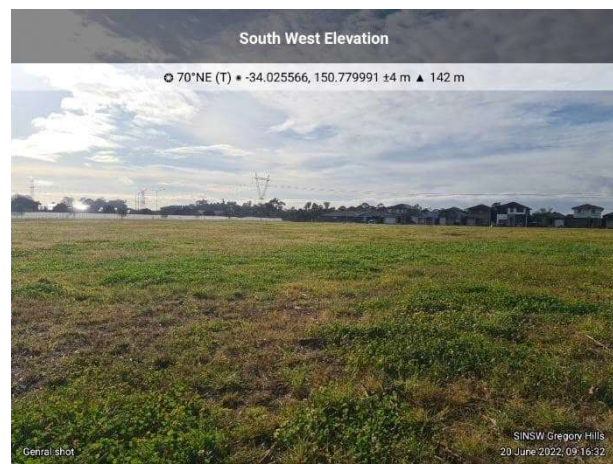


Figure 11 General landscape, south west elevation



Figure 12 An example of visible disturbance on site

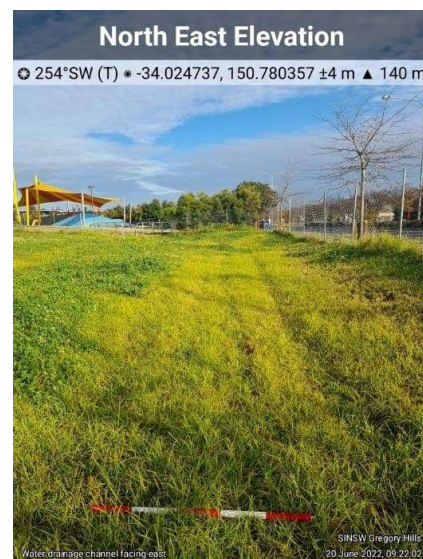


Figure 13 Drainage channel at northern end of site

7. Due Diligence Process

The Due Diligence Code of Practice provides a series of questions that must be answered to determine the outcome of the Due Diligence process. These questions are addressed in Table 7.

Table 2 Due Diligence questions and responses

Question	Answer	Comment
Will the activity disturb the ground surface or any culturally modified trees?	Yes	The development of the school will disturb the ground surface; however, it has been subject to previous disturbance. There are no culturally modified trees within the project area
Are there any: Confirmed AHIMS records Other sources of information Landscape features	No	There are no AHIMS sites or landscape features within the project area
Can harm to Aboriginal objects be avoided?	Yes	No Aboriginal objects are present and there is currently an AHIP in place that incorporates the project area
Does a desktop assessment and visual inspection confirm the presence of Aboriginal objects, or that they are likely to be there?	No	Both the desktop assessment and visual inspection demonstrated that no Aboriginal objects are, or are likely to be, present
Is further assessment required?	No	AHIP no 1101808 currently exists over the site which allows harm to all Aboriginal objects in, or under the land. Further, the visual inspection undertaken for the Due Diligence indicated that there has been a high level of disturbance across the project area, and it is highly unlikely that Aboriginal objects will remain in the project area

8. Conclusions and Recommendations

This report found that the proposed project area does not contain and is not likely to contain any Aboriginal objects.

As an AHIP currently exists that applies to the site at Gregory Hills, no further Aboriginal cultural heritage assessment actions are required, and the proposed works can proceed with caution, as long as all works undertaken do not contravene the conditions of the AHIP.

The following recommendation is made for this project:

- The conditions of AHIP No. 1101808 apply to the site, all development activities must comply with these conditions, particularly Conditions 4 and 5.

The AHIP is appended at Appendix B.

Further information about SINSW responsibilities relating to Conditions 4 and 5 are detailed below.

Condition 4

The AHIP holder must ensure that all persons involved in activities or works covered by this AHIP (whether employees, contractors, sub-contractors, agents or invitees) are made aware of and comply with the conditions of this AHIP.

SINSW requirements relevant to this condition:

Dart West Developments are the holder of AHIP no 1101808. In order to comply with this condition, they have provided a copy of the AHIP to SINSW. SINSW must read and understand the conditions of the AHIP, ensure that all conditions are complied with and make a copy of the AHIP available to any employees, contractors, sub-contractors, agents or invitees to the project area. It is recommended this is provided as part of any site induction that occurs.

Condition 5

The AHIP holder must ensure that all persons involved in activities or works covered by this AHIP are provided with information relating to the Aboriginal cultural heritage values of the AHIP area, the location of any protected Aboriginal objects, the location of any protected areas and the protocols that are to be followed for the management and protection of any protected area and/or the protected Aboriginal objects specified in Schedule B.

SINSW requirements relevant to this condition:

Dart West Developments are the holder of AHIP no 1101808. In order to comply with this condition, they have prepared a Site Induction Information Sheet on Aboriginal Heritage Matters (Appendix D). This sheet provides a summary of the Aboriginal Cultural Heritage Values for the whole of the Turner Road South AHIP area, as well as providing details about the protected areas and how they are being managed. This has been provided to SINSW. SINSW should provide a copy of the Site Induction Information Sheet on Aboriginal Heritage Matters to any employees, contractors, sub-contractors, agents or invitees to the project area. It is recommended that this is provided as part of any site induction that occurs.

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Appendix A. Jo McDonald Cultural Heritage Management, 2007.
Archaeological investigation of the Turner Road and Oran Park
Precincts within the South West Growth Centre, Camden, NSW.

Archaeological investigation of the
Turner Road and Oran Park Precincts
within the South West Growth Centre,
Camden, NSW.

January 2007



Report to APP on behalf of
the Growth Centres Commission and Camden City Council

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1. INTRODUCTION AND BACKGROUND

This report was commissioned by APP on behalf of the Growth Centres Commission (GCC) and Camden Council. It documents the Stage 1 assessment of the Oran Park and Turner Road Precincts. This report summarises the existing information, identifies knowledge gaps and details further work to be undertaken in both Precincts.

1.1 Background

The Western Sydney Growth Centres project is seen to present an opportunity to provide housing for Sydney's growing population within an environmentally sustainable framework. The South West Growth Centre comprises a total area of c.17,000 ha and includes land between Camden in the south and Kemps Creek in the north. There are eighteen designated precincts within the South West Growth Centre.

The Oran Park and Turner Road Precincts are two of the first release precincts for the South West Growth Centre. The Oran Park Precinct (c. 1,120 ha) will be developed for a range of land uses. This includes residential (with approximately 8,500 dwellings proposed), and employment land, a town centre and open space. It is currently proposed that the Turner Road Precinct (which is c.540 ha) will be developed for residential purposes (with approximately 4,000 dwellings) and 80 ha of employment land.

All work undertaken for this study is being done in accordance with the Protocols and Precinct Assessment Method developed by the GCC and DEC (Appendix 1). This Stage 1 report documents the first step of the defined Protocols and Methodology involves the gathering and analysis of existing information.

1.2 Summary of findings and recommendations

Preliminary mapping of previous land use impacts indicates that there has been a significant amount of prior disturbance across the majority of the Oran Park and Turner Road Precincts. Land identified as having primarily agricultural land use has been identified as having the highest potential for containing intact archaeological sites. The land with the highest archaeological sensitivity has been mapped.

Ground truthing of these results will be undertaken with relevant stakeholders over 11 days of fieldwork. All of the groups who registered interest in being involved in the consultation for the Oran Park and Turner Road Precinct Assessments have been invited to contribute to the preparation of this document and will be sent a copy for review.

It is recommended that:

1. The Oran Park and Turner Road Precincts should be surveyed on foot in order to identify the presence of surface archaeological sites and to ground-truth the results of sensitivity mapping undertaken in Step 1;
2. The fieldwork should focus on areas identified as having particular potential for retaining intact archaeological sites across the study area such as:
 - ☉ Land identified as having a primarily agricultural land use and areas of good – high potential archaeological deposit identified through sensitivity mapping;
 - ☉ Original water holes at the junction of higher order streams;
 - ☉ Fluvial erosional bench above third and fourth order channels.
3. The TLALC and the other interested Aboriginal groups continue to be involved in all stages of the assessment process in accordance with the GCC guidelines;

1.3 Report authorship

This report was written by Amy Stevens, with contributions from Dr. Peter Mitchell (Groundtruth Consulting) and management input from Jo McDonald. Dr. Peter Mitchell (Groundtruth Consulting) undertook the land use interpretation, completed the assessment on the geomorphology and soils (Appendix 2) and contributed to the analysis of potential archaeological sensitivity.

2. ABORIGINAL CONSULTATION

The Oran Park and Turner Road Precincts fall within the boundaries of the Tharawal Local Aboriginal Land Council. Cubbitch Barta Native Title Claimants Aboriginal Corporation, Darug Tribal Aboriginal Corporation, Darug Custodial Aboriginal

Corporation and Darug Aboriginal Cultural Heritage Assessments have also been identified as stakeholders. Relevant documentation is provided in Appendix 3.

Advertising for interested parties has been undertaken in accordance with DEC guidelines. Notices were placed in the Koori News and the Indigenous Times on 23.11.06, as well as in the Wollandilly Advertiser on 28.11.06.

Responses registering interest were received by Mr Pat Lock of Carwoola Council Elders, Mr Nigel Robinson of Gundngarra Local Aboriginal Land Council, Ms Sarah James of the University of Western Sydney and Dr Greg Teal of the University of Western Sydney, all of whom indicated an interest in reviewing reports upon the completion of the site inspection. In accordance with their request, Mr. Nigel Robinson and Ms. Sarah James were also invited to attend the stakeholder meetings. La Perouse Botany Bay Aboriginal Corporation, Wadi Wadi Coomaditchie Aboriginal Corporation and Moran Elders Council have also registered separate expressions of interest in being involved in the project through the Northern Illawarra Aboriginal Corporation (NIAC).

All identified stakeholders were invited to contribute to the background research and prioritisation of further work.

Tharawal Local Aboriginal Land Council is interested in being involved in all aspects of the fieldwork and reporting in order to assist in the appropriate management of the cultural heritage for the study area.

Ms Glenda Chalker (Cubbitch Barta Native Title Claimants) recalls identifying artefacts while surveying the Denbigh curtilage, and that the landowners had collected some of these artefacts and submitted them with the Australian Museum. Ms Chalker indicated that she would like the landowner to accompany the archaeologist during the survey of that area to identify the location from which these artefacts were removed. As a part of the expected outcomes for this project, the Cubitch Barta group is interested in pursuing evidence that the Dharawal people were the original inhabitants of the land covered by the Oran Park and Turner Road Precincts.

A report that was commissioned by Cubbitch Barta in 1999 and written by Dan Tuck was not made available to the consultant due to a conflict of interest between Cubbitch Barta and several of the registered claimants being consulted as a part of this study.

Mr Des Dyer (Darug Tribal Aboriginal Corporation) noted that there has been very little archaeological work undertaken within the study area. Mr. Dyer expressed a strong interest in participating in the survey in order to add to our knowledge of the local archaeology.

Ms Leanne Watson (Darug Custodial Aboriginal Corporation) has registered interest in being involved in all aspects of the project.

Ms Celestine Everingham (Darug Aboriginal Cultural Heritage Assessments) observes that the entire area is close to permanent water and she believes there will be a significant number of sites within the study area.

La Perouse Botany Bay Aboriginal Corporation, Wadi Wadi Coomaditchie Aboriginal Corporation and Moran Elders Council have contributed to the background research through NIAC. Mr. Chris Illert has provided a large amount of information relating to the study area and surrounds on their behalf. Much of the information contained in the *Social and Cultural Associations* section of this report has been as a result of the contributions from these groups.

Survey of the Oran Park and Turner Road Precincts will be undertaken over 11 days once site access has been arranged. All of the identified stakeholders have expressed a strong interest in participating in the survey.

3. THE STUDY AREA

Oran Park Precinct is 1,119 ha of land at the south-western extent of the South West Growth Centre (Figure 1). South Creek runs along one boundary and The Northern Road bisects the Precinct (Figure 2). The two major land holders within this Precinct include the Oran Park Raceway and the Macarthur Anglican School. Denbigh heritage homestead is also located within this Precinct, as well as 10 smaller land holdings.

The Turner Road Precinct is 536 ha of land at the south-eastern extent of the South West Growth Centre (Figure 1). Camden Valley Way provides its north-west boundary, with Badgelly Road running through the middle of the Precinct (Figure 3). There are currently two major land holders within the Turner Road Precinct – the Camden Valley Golf Resort and St Gregory's College, which is located immediately adjacent to this precinct. There are 28 smaller land holdings located within the Precinct.

Figure 1: Plan of the South West Growth Centre, showing Precinct layout.

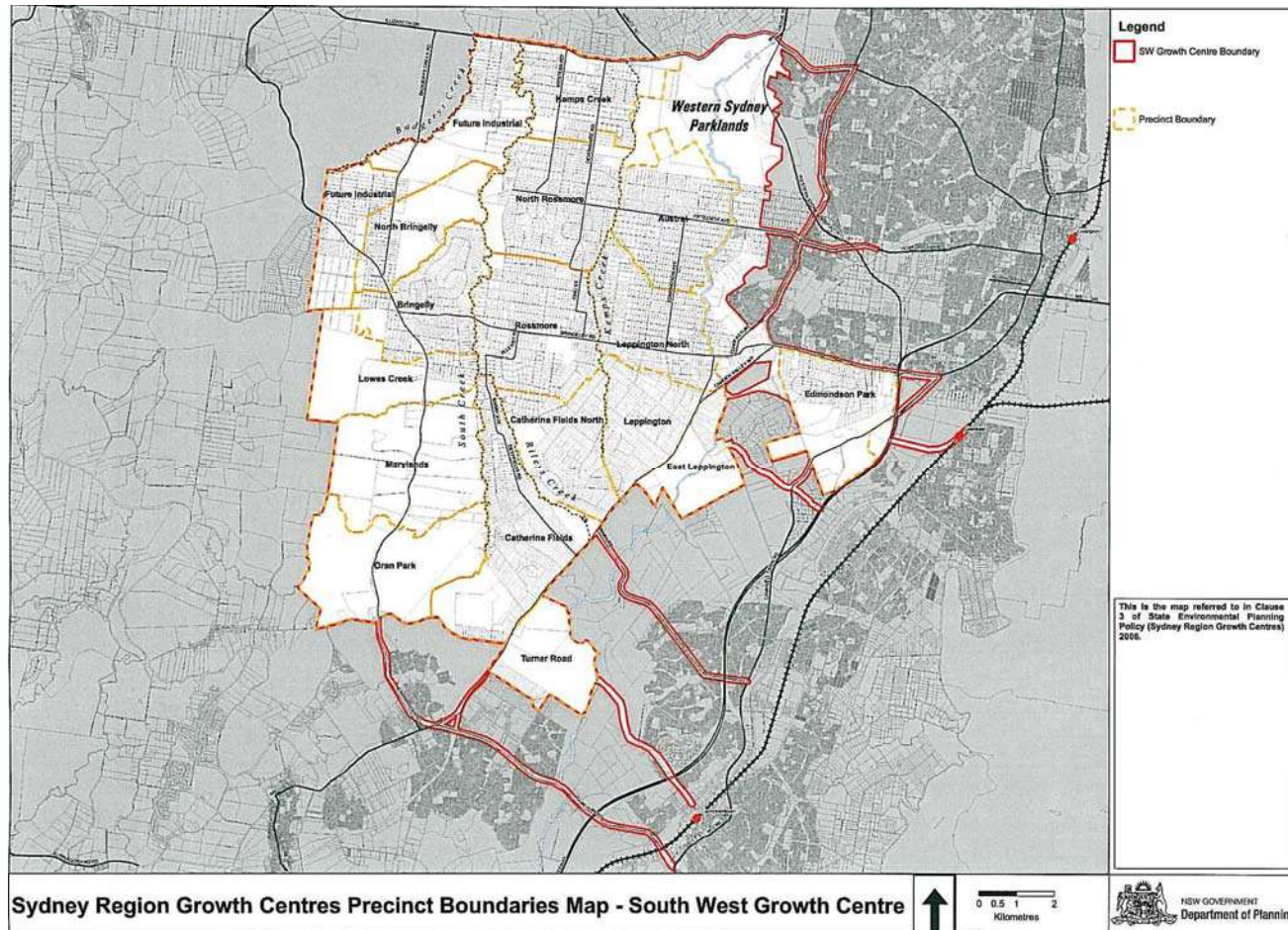


Figure 2: Indicative Layout Plan for the Oran Park Precinct. The grey shading indicates the Denbigh curtilage.

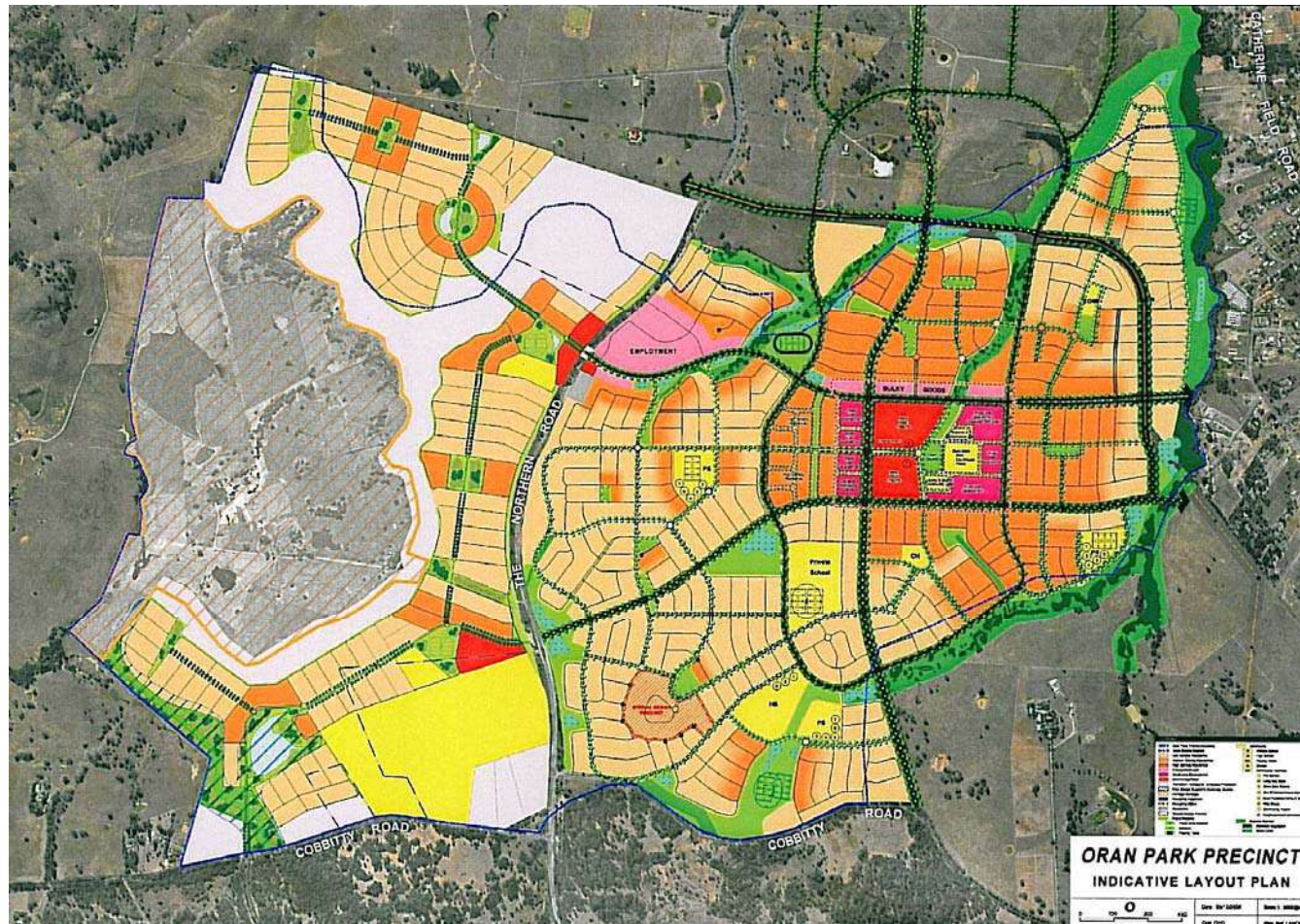
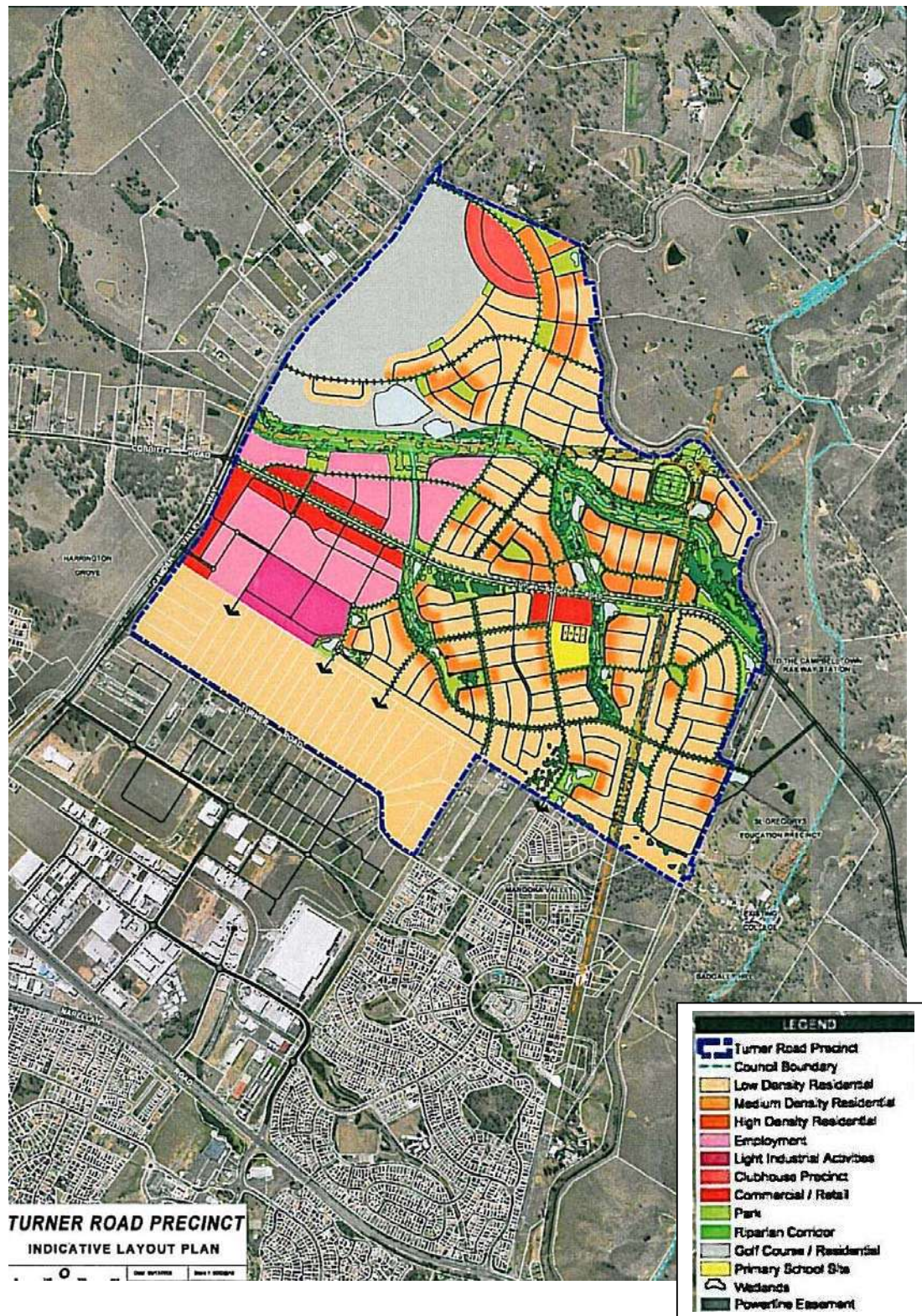


Figure 3: Indicative Layout Plan for the Turner Road Precinct.



3.1 History of European Land Use

The first land grant of 5,000 acres in the Cowpastures area was made in 1805 to John Macarthur. The government initially tried to deter settlement in the area to protect the wild herds of cattle that had escaped from the colony in 1788 and were rediscovered having multiplied greatly in number by 1795 (Ashton and Blackmore 1987). Macarthur's grant was made with the intention of raising and exporting wool from the colony during a period of impending war. Much of the land-use history known for the region comes from records related to the Macarthur property (now Camden Park).

With rising numbers of convicts being transported to the colony in 1815 and some anxiety over the economic viability and self sufficiency of the settlement, the government began making attempts to expand pastoralism. Thousands of acres beyond the Cumberland Plain were granted and sold and the Macarthur family received further grants of 10,298 acres in the Cowpastures in 1822 and 1823, and an additional 10,400 acres in 1825 (Ashton and Blackmore 1987).

In 1815, Harrington Park was granted to William Campbell as compensation for the loss of his ship (Proudfoot 1990). The Oran Park Precinct is within this large early land grant. The Turner Road Precinct was originally part of land grant made to George Molle in 1816 (Proudfoot 1990).

Clearing and burning of the Cowpastures land grants was undertaken immediately and the area was utilised for diverse farming, including grain, meat, fruit and dairy produce. The area was subject to fires and severe drought from the late 1820s, and consistently throughout the nineteenth and twentieth centuries.

By 1841 Camden Village had been established. The village at this stage included only a small number of cottages, with a Post Office, a church and an inn being constructed (Atkinson 1988). During this time, the Macarthur's were also leasing out land within Camden Park, expanding horticultural activities and increasing the production of Camden wine.

The area continued to be used for a diverse range of farming activities, though by the late nineteenth century, dairying had become the most profitable industry for the area. Further clearing, burning and ring-barking was undertaken at this stage to allow for an expansion in grazing and fodder crops. Severe drought in the early twentieth century

provided the impetus for the construction of many more silos and dams throughout the area.

Industrialisation of rural industries took off in the 1950s, and new technology was brought to the area in relation to the dairies, orchards and irrigation systems that included the construction of large new dams. Following the rural recession of 1970-71, the Camden Park Estate was sold to developers and shortly thereafter acquired by the State Government (Atkinson 1988).

3.2 Landscape parameters

The study area is located towards the southern end of the Cumberland Plain. The landscape comprises gently rolling hills and wide valley floors with channel and floodplain merging with a low angle colluvial slope. Both Oran Park and Turner Road Precincts are situated on bedrock of Bringelly Shale.

The Oran Park Precinct ranges in elevation from 162m asl (above sea-level) in the northwest corner to 66m asl in Cobbitty Creek. The total relief of 96m over c.5.5km kilometres is reflected in an average slope of 2-4° with short segments up to 15° on the northern margin.

The Turner Road Precinct ranges in elevation from 143m asl in the southwest corner to 93m asl on South Creek. The total relief of 50m (over c.3km) is reflected in an average slope of 1-3°. More detailed information on the geology, geomorphology and soils of the Oran Park and Turner Road Precincts are provided by Dr. Peter Mitchell (Groundtruth Consulting) in Appendix 2.

Stream Order Analysis

Oran Park and Turner Road Precincts are located in the headwaters of South Creek. Stream order analysis has been used to indicate the potential distribution of Aboriginal sites across the landscape. Dr Peter Mitchell conducted this analysis using the Strahler method using 1:25k topographic maps. Constraints to this approach result from the fact that many of the first order streams are not identified on the 1:25k maps and that the Precincts are not defined by catchment boundaries. These results however, provide a broad interpretative tool which informs the direction of subsequent field investigations.

The Oran Park Precinct lies within the headwaters of left bank tributaries of South Creek and right bank tributaries of Cobbitty Creek. South Creek is variably a third or fourth order creek within the Oran Park Precinct, and provides the highest potential for containing more extensive Aboriginal sites. Only the left bank of South Creek is within the Oran Park Precinct.

Table 1: Strahler statistics for streams in the Oran Park Precinct (see Appendix 2).

Stream Order	1	2	3	4
Number of segments	42	12	4	2
Length (km)	15.9	8.2	4.1	2.9

The Turner Road Precinct lies within the headwaters of the right bank tributaries of South Creek and right bank tributaries of Kenny Creek. According to the stream order analysis (Table 2), a short section of South Creek is the only third order stream within the Precinct and this would have provided the most reliable source of water within the Precinct.

Table 2: Strahler statistics for streams in the Turner Road Precinct (see Appendix 2).

Stream Order	1	2	3
Number of segments	29	7	1
Length (km)	8.6	4.4	1.7

Vegetation

According to a study of remnant bushland on the Cumberland Plain (NPWS 2000), remnant vegetation is shale hill woodland dominated by grey box *Eucalyptus moluccana*, forest red gum *Eucalyptus tereticornis*, with some narrow leaved ironbark *Eucalyptus crebra* on a few of the ridges in the eastern part of the Turner Road Precinct with patches of alluvial woodland, mainly swampy oak *Casuarina glauca* along the streams. In the past, most of the landscape has been extensively cleared but patches of regenerating woodland have become more common in the last two decades. These usually have an understorey of boxthorn *Themeda australis*. The most common weed species is African olive *Olea europaea*.

3.3 Stone Raw Materials

Silcrete was the most common raw material utilised by Aboriginal people for stone artefact production on the Cumberland Plain. Known sources include the St Marys

Formation, Rickabys Creek gravels and terraces along the Nepean-Hawkesbury River, which include Agnes Bank Sand and the Cranebrook Formation. Silcrete generally occurs as pebbles, cobbles and occasionally boulders (some boulders up to 2m long have been recovered from the bed of the Nepean-Hawkesbury River (Attenbrow 2002).

Stone raw materials such as silicified tuff, silicified wood, quartz, quartzite and chert were also utilised for production of stone artefacts on the Cumberland Plain. The Rickabys Creek Gravels contain cobbles of quartzite, silcrete, chert, porphyry and igneous rock. Pebbles of igneous rock, suitable for grinding into hatchet heads, are also known to occur in gravel beds on the Nepean River.

The St Marys Formation has been mapped at the South / Eastern Creek systems downstream of the study area, at Mulgoa Creek c.18 km north of the study area and near the Georges River at Moorebank c.22km northeast of the study area. Pleistocene terraces along the channels of the Nepean River have been mapped from the junction of Nepean and Warragamba River (c.20 km northwest of the study area). Rickabys Creek Gravel is located c.24km north of the study area.

None of the naturally occurring geological materials observed within the study area (Groundtruth Consulting 2006) are rock types suitable for the manufacture of artefacts. Any artefacts identified within the study area would have been imported from more distant resource locations.

3.4 Existing Disturbance

The Oran Park and Turner Road Precincts have been subject to a range of previous land use disturbance impacts which have affected both ground surfaces and sub-soils. Clearing, cultivation, agricultural activities and the construction of tracks, roads and farm dams has occurred across the majority of both precincts. Extensive disturbance to the soil is also evident in relation to earthworks associated with Oran Park Raceway and the margins of The Northern Road and Camden Valley Way in the Oran Park Precinct. Development around the Macarthur Anglican School and the subdivision of small residential blocks along Turner Road has had a similarly extensive impact on the soil within the Turner Road Precinct.

Sheet erosion during the early to mid 20th century has resulted in the effective stripping of hill crests throughout the study area. This has left the clay subsoil exposed in parts of

the study area, though much of the land has recovered. Aboriginal sites are often exposed through sheet erosion, though this process does have the equal effect of compromising the condition of, or completely destroying archaeological sites.

As a method of identifying potentially sensitive archaeological landscapes throughout the study area, basic land use mapping has been undertaken for both the Oran Park and the Turner Road Precincts by Dr. Peter Mitchell (see Appendix 2). While this does not constitute a detailed assessment of the land use history or archaeological sensitivity, it does provide a framework with which to guide subsequent field investigations.

The land use assessment draws on the *Land use and Fragmentation Study* (EDGE Land Planning 2003) and previously accepted approaches to cultural heritage management (e.g. JMcD CHM 1997, 1999, 2005a). Such an assessment is based on an obvious inverse relationship between ground disturbance and the potential survival of buried Aboriginal sites and is used as an indication of the potential survival and relative condition of sites. The EDGE Planning report identifies five primary land uses, four of which are identified within the Oran Park and Turner Road Precincts (Figure 4). These are:

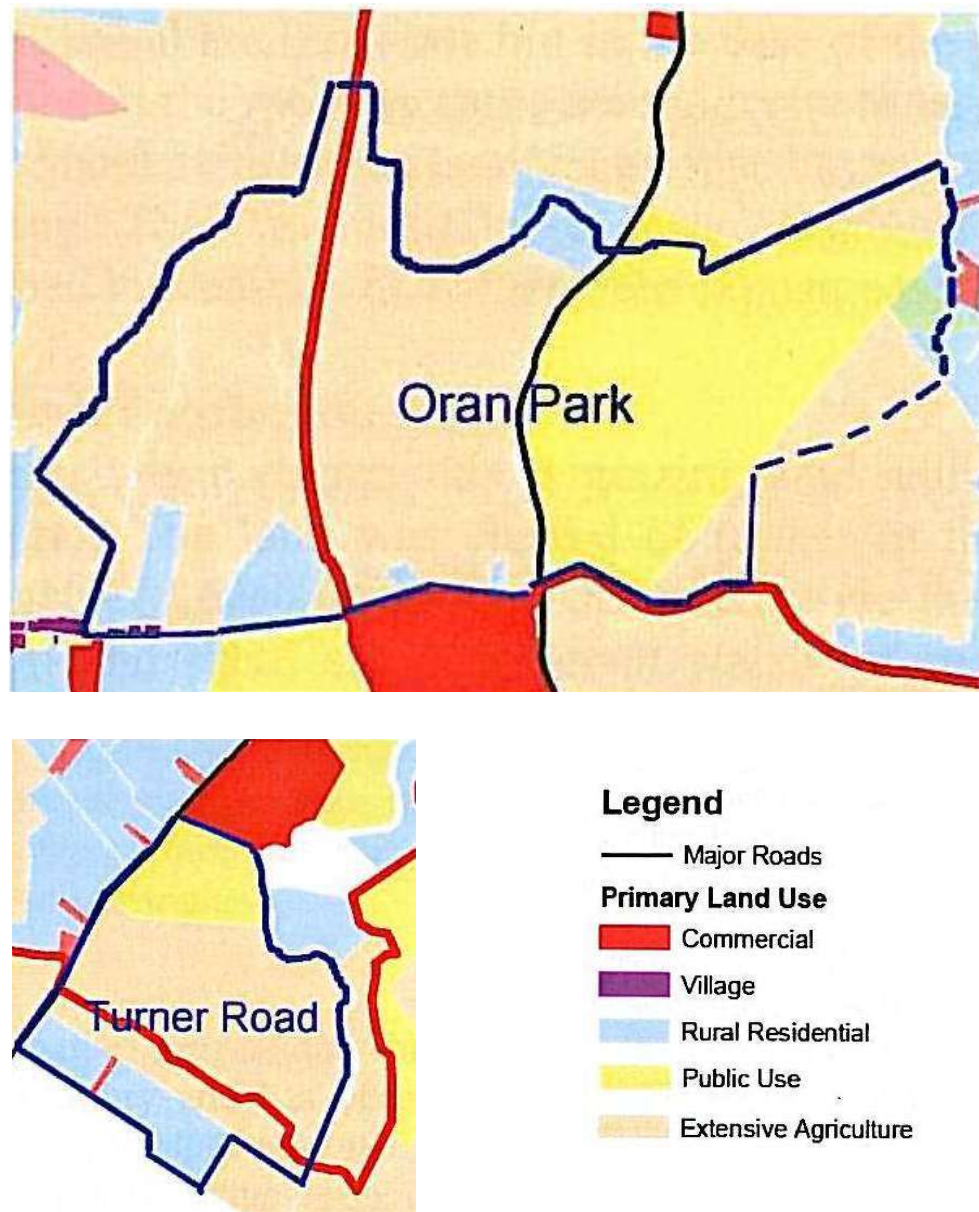
- ☒ Commercial
- ☒ Village
- ☒ Rural Residential
- ☒ Public Use
- ☒ Extensive Agriculture

Land identified as village land use and rural residential land use comprises an extremely small proportion of both study area. Both categories of land use are likely to be characterised by higher ground disturbance due to the construction of buildings and dams, grazing and sheet erosion. The chance of Aboriginal sites surviving intact is considered respectively to be extremely low (village land use) and low (rural residential land use).

Public land use is defined in this study as the Camden Valley Golf Course (Turner Road Precinct) and Oran Park Raceway (Oran Park Precinct). The expected levels of site disturbance vary between these two locations and across the sites themselves.

Overall the chance of Aboriginal sites surviving in these lands is considered to be moderate, although there will be pockets of land with higher or lower potential determined by varying degrees of disturbance across these sites.

Figure 4: Principle land uses identified by EDGE Land Planning (2003) with approximate Precinct Boundaries (blue lines).



Extensive agriculture has been identified as the principle land use across much of the study area. Disturbance in this land is due to clearing, cultivation, grazing and sheet erosion. Areas of extreme ground disturbance are expected within these lands associated with roads, tracks, buildings, pipelines, quarries, sand pits and particularly farm dams.

A summary of these results indicates that land identified as intensive agriculture is the most likely area in which Aboriginal sites will have survived and where sites will likely be in the least disturbed condition, particularly in pockets with lower previous impacts. Public land has variable potential for containing intact deposit, but is considered to be moderate overall. Village and rural residential land has low – very low potential for containing intact deposit.

4. ETHNOGRAPHIC CONTEXT

There is considerable debate over the original language groups occupying the Camden area prior to European contact and the extent and nature of territorial boundaries. This is due in part to the absence of ethnographic and linguistic study at the time of European contact and the scarcity of adequate historical documentation and anthropological interest until well after settlement of the region. Undoubtedly, there was also some confusion due to the inability of many European settlers to distinguish between tribal groups.

The linguistic evidence for the region indicates the presence of discrete language groups at European contact (Capell 1970, Dawes 1790, Mathews 1897, 1901, Mathews and Everitt 1900, Threlkeld in Fraser 1892, Tindale 1974, Troy 1990). This evidence is sketchy, and there are conflicting views on how it can be interpreted (Kohen 1986, 1988; Kohen and Lampert 1988; Ross 1976, 1988). The boundaries between these different language groups, as well as inter-relationships between these create the greatest disagreement in archaeological and current socio-political interpretation.

Linguistic evidence collected at contact was largely in the form of unprovenanced word lists (Collins 1798: Appendix XII, Hunter 1793[1968]:523, Tench 1793[1961]:291-3), with the Dawes (1790) manuscript providing a detailed and comprehensive analysis of the Sydney language.

Mathews' work in the region defined three distinctive languages, the *Darkingung*, *Gandangara* and *Tharawal*. *Darug* was defined as a dialectic variation of *Gandangara* (Mathews and Everitt 1900:265). These four languages provided an incomplete coverage of the region, as they did not include the coastal area north the Hawkesbury (specifically) and possibly also north of Port Jackson (Capell 1970). Mathews placed the *Darkingung* to north of the Hawkesbury River in the drainage basins of the Macdonald and Colo Rivers, Putty Creek and Wollombi Brook (Mathews 1897:1). The *Gandangara* were said to have existed in 'the coastal district ... from the Hawkesbury River to Cape Howe, extending inland to the Blue Mountains, and thence southerly ...' (Mathews and Everitt 1900:262). The *Tharawal* speaking people were spread over the coast from Port Hacking to Jervis Bay, ...extend[ing] inland for a considerable distance (Mathews 1901:127). Mathews recorded *Darug* dialect being spoken at 'Campbelltown, Liverpool, Camden, Penrith, and possibly as far east as Sydney, where it merged with *Thurawal*' (Mathews and Everitt 1900:265).

A book of memoirs published (1914) by William Russell (Werriberri) identifies the Camden Aborigines as a distinctly separate language group and their tribal area as 'Cubbitch-barta' after its white pipe clay. William Russell recalls that 'Old Bundle' was the chief of the Camden people during the 1830's. Lists put together from the 1828 NSW census and the 1832-43 Return of Aboriginal Natives also identify the Cobbiti Barta as the name of the tribal group associated with Camden, and there are records of Old Bundle living in the area until 1843. Reverend William Ridley compiled word lists in the 19th century including an unnamed language he recorded as being spoken at George's River, Cowpasture and Appin.

Mapping of tribal boundaries by Tindale (1974) indicates that the Camden region was occupied by the *Dharawal* language group, their land extending south of Botany Bay to the Shoalhaven River and inland to Camden. The *Dharug* language group occupied country to the north of Camden and covered the south west part of the country of Cumberland. The *Gundangara* language group occupied country to the south and south-west.

More recent linguistic mapping and research (e.g. Troy 1990) has shown a wide variation on the geographical boundaries of these languages and dialects, although it is likely that there were enough common words between them that the groups could

communicate without too much difficulty. The geographical boundaries of language groups and territories are only indicative. The issue is subject to significant debate and the interpretation based on extremely limited historical documentation. Moreover, such boundaries may not have been originally well-defined or obviously delineated across the landscape.

What is apparent from the ethnohistoric and historic records is that the Camden region may have been on the periphery of the core territories of a number of separate Aboriginal groups. It seems that, at European contact, this area was close to the boundary between the Darug, Dharawal and Gandangara language groups (and see Haglund 1989). The Narellan Valley area may also have been part of a 'travel corridor' linking the northern Cumberland Plain, the Cowpastures/Camden area and the Illawarra region (Haglund 1989).

Early contact between Europeans and the Aboriginal groups of the Cowpastures

The Camden area was first known as the Cowpastures after Governor Phillip's escaped cattle were discovered there in 1795. The six head of cattle escaped and vanished in 1788. A number of reports were made that the cattle were under the care of natives beyond the western settlements, but it was not until 1795 that two emancipated convicts were sent to find the cattle (Liston 1988). With Tharawal guides, the cattle were located in the Cowpastures. Governor Hunter visited the area to confirm the sighting shortly thereafter and found that the herd had increased significantly in number.

Early accounts of the Cowpastures noted an abundance of resources that made Camden and the surrounding areas a good prospect for European settlement and it would certainly have made an attractive area for occupation by Aboriginal groups.

Governor King sent a party led by Ensign Barrallier in 1802, to attempt a crossing of the mountains west of the Cowpastures. The party was accompanied by a number of native guides and came across a group of Aborigines, an encounter retold by King in a letter to Camden in 1805. According to this account, the chief of this particular group was *Goondel* and the surrounding country belonged to him. This is confirmed in Russell's memoirs, which cites *Goondel* as the earliest of the chiefs he remembers (Russell, 1914: 9).

A botanist, George Caley was also one of the first Europeans to venture into the Cowpastures on a series of surveys. At this time he made significant contact with Aboriginal people inhabiting the region. He recounts meeting with two Aboriginal groups whilst on a survey in 1804 (Caley's journal quoted in Design 5 2006). One group was familiar to him from previous visits and greeted him by name. This group was occupied with 'Walbunga' at the time of Caley's visit, hunting, using fire to flush out the kangaroos.

Though there was some confusion in the midst of the fire, Caley noted that there were two distinct groups present – the individuals he recognised from previous visits being the tribe inhabiting the Cowpastures and a visiting group from the mountains. Caley is more specific about the details of the visiting group and notes in particular the presence of a well known 'chief' 'Cannabaygal (also known as *Cannaboygal* or *Cannamikel*). Caley spoke with *Cannabaygal* through an interpreter and observed a distinct authority in his countenance and a profound respect from the local Aboriginal group during their visitors stay (Proudfoot 1990).

Aboriginal / European relations during initial settlement of the Cowpastures

During the initial years of expansion into the Cowpastures, relations between the Europeans and Aboriginal people were generally peaceable. John Warby was stationed in the Cowpastures from c.1802 and conducted extensive exploration of surrounding areas with the assistance of the Tharawal people (Liston 1988:50). Certain individuals are recorded as having frequently acted as guides, translators and mediators for European explorers and settlers in these initial years, particularly *Boodbury* and *Old Bundal*.

More extensive settlement of the Cowpastures continued through the early 19th century, owing largely to a serious drought that began in 1812 and lasted for four years. This put a significant strain on local resources, both for the European settlers and the Aboriginal groups (the local groups and neighbouring groups driven from their own drought stricken lands).

The first recorded instance of open conflict in the Cowpastures occurred in 1814. After the murder of several Aboriginal people and Europeans settlers, a tribe generally agreed to be from beyond Stonequarry Creek (Jervis Bay tribe) killed a number of

stockmen and waged a battle with settlers near Cawdor (Liston 1988). *Boodbury* and other Aboriginal people from the local tribes acted as mediators and translators. Five mountain Aboriginals (*Gandungarra*) were held responsible for the murder of James Daley's children at Bringelly (Atkinson 1988) and a number of the local tribe assisted in tracking the offenders, though they were not found.

During this period of conflict, it is generally agreed that the Camden tribe and the Tharawal were relatively peaceful and that it was the visiting mountain tribes and southern highland tribes who were instigating the violence (Liston 1988).

The hostilities worsened in 1816, when a number of men were killed by visiting Aboriginal groups. Settlers engaged in battle with the Aboriginal men, taking a number of *Tharawal* men (including *Boodbury*) to fight, though the men managed to escape. In retribution, Governor Macquarie sent three detachments of the 43rd regiment to put an end to the conflict. This culminated in the massacre of 14 Aboriginal people hiding at Appin, including *Cannabayagal*, the *Gandungarra* man encountered by Caley in 1804 (Liston 1988: 52).

Continuing Aboriginal occupation in the Cowpastures

After this initial conflict, relations between Aboriginals and European settlers in the Cowpastures were relatively quiet. There are limited records of the Aboriginal groups still inhabiting Camden, though there is evidence of Aboriginal groups being employed to work as guides, farm hands, trackers and policemen and certain individuals are well known from historic documents.

Bundal is known to have accompanied expeditions as guide and interpreter in 1818 for Charles Throsby and was appointed as a constable at Narellan in 1822 (Atkinson 1988). *Bundal* was also employed as a tracker on a number of occasions, helping the police to track down thieves and escaped convicts. In 1851, 'Yellow Johnny', an Aboriginal man who worked on William Macarthur's orchard is known to have tracked down three children lost in the bush near Appin (Atkinson 1988). Another Aboriginal man, Johnny Tindal is recorded as being employed from the 1830s as a rough rider.

There are also records of Aboriginal people being employed as seasonal workers, for which they were paid in provisions. James Hassall, whose family purchased the Denbigh

Property in 1826 recalls up to 200 Aboriginal people working at their estate during burning off periods (Hassall 1977).

A permanent camping place remained on Camden Park until the late 19th century. James Macarthur and his family have recounted stories of Aboriginal corroborees nearby Camden Park in 1839, 1846 and 1850. James Hassall also recalls witnessing a number of corroborees on the Denbigh Property, overlooking Cobbitty Creek (Hassall 1977). It is suggested that a ceremonial ground may have been located to the north of the Denbigh Homestead (Mary Dallas Consulting Archaeologists 2003).

Population numbers are indicative at best and derived from diaries, letters and blanket return lists. Governor Macquarie's journals list nine adults and four or five children in 1810. William Macarthur recorded 18 Aboriginal people living permanently at Camden in 1843 (Atkinson 1988). A list compiled in 1842 records the Aboriginal population as 62, however this is the combined population of the Camden people and the people from Burraborang and Nattai, often described as one tribe due to their close relations. In 1845, the combined population was recorded as 67, including nine part-Aboriginal children. Blanket return lists from 1865 recorded the names of nine Aboriginal people living within Camden.

4.1 Social and Cultural Associations

A number of documents have been compiled in recent years detailing the ancestry of Aboriginal families living in and around the Camden district at the time of European expansion into the region. There has also been an attempt to record some of the traditional stories and significant events associated with the study area, from the early 19th century and in the more recent past.

One such story is an oral account by Jean Stewart of La Perouse, known as 'The story of the littlest Gundungaras and their great walk to La Perouse' (Illert 2005). Jean Stewart relates a story that was told to her by her aunt (Emma Timberley), which is thought to have occurred around 1890. After Jane Timberley (wife of *Gundungarra* man Henry John Simms) died in childbirth in an Aboriginal camp in the Southern Highlands, Emma Timberley (Jane's mother), upon learning that her grandchildren had been abandoned walked from La Perouse to find them. Emma and the three children (and

possibly a fourth Gundungara child) then walked all the way back to La Perouse where she raised the children herself.

Ellen Anderson (1855 – 1931) was an Aboriginal woman born in Unanderra, c.7km south of Wollongong. Through the 1920's, Ellen recounted a number of traditional Aboriginal stories and stories from her own life, which were recorded by C. W. Peck. Amongst other stories recorded by Peck, he recalls a conversation with Ellen upon their meeting where she told him that her father was a king and Ellen herself a princess. According to Peck, Ellen recalled her father 'King Mickey', being crowned by the white people at Wollongong Show. Ellen went on to become one of Peck's main sources for his published Aboriginal stories and legends, many of which relate to the Illawarra and Burratorang Valley regions. An assessment of these stories has been undertaken previously (Illert 2003), but they do indicate a tradition of Aboriginal storytelling that continued long after European contact and the cessation of traditional ways of life.

Another story tells of a fight for leadership after the death of 'King' Mongang in 1845. An interpretation by Illert (unpub *no date*) on behalf of the Moran Elders Council, purports that *Murruin* and *Moyengully* were fighting for leadership of the *Gundungarra* nation. Derived largely from an account by Ben Carlton that was published by William Cuneo in 1893, this account suggests that a battle was waged between the two during an 'ascension' ceremony witnessed by Carlton and his father (c.1845). At this time, *Moyengully* was elected king. Within weeks, having been accused by *Murruin* of the leader's murder, a fight eventuated between the two in revenge for this death. Illert's interpretation asserts that the leadership of the *Gundungarra* nation altered after this fight.

Documentation provided by Cubbitch Barta Native Title Claimants indicates that the Cubbitch Barta people are a clan of the Dharawal language group. These people were known to early colonists as the Cowpastures people. This is supported by William Russell's memoirs and documented by lists put together from the 1828 NSW census and the 1832-43 Return of Aboriginal Natives. Cubbitch Barta records corroborees at the Denham Court property up into the 1850s. These corroborees were documented as including local Aboriginal people as well as other visiting groups.

5. ARCHAEOLOGICAL CONTEXT

5.1 Regional Context

Most of the 4,000-plus archaeological sites recorded on the Cumberland Plain are open artefact scatters. There are few surviving scarred trees due to previous bushfires, land clearing and disturbance, and stone extraction sites occur in areas where there are naturally occurring lithic resources.

Various models have been proposed to explain the distribution and variability of Indigenous heritage sites across the Cumberland Plain. Haglund's (1980) model for sites in the Blacktown area stated that these would most likely occur on or near water sources, often on elevated ground. Based on a larger sample of surface scatter data, Kohen (1986) and Smith (1989) found that the primary determinant for Aboriginal open site location on the Cumberland Plain was proximity to water.

Contrary to earlier models, which tried to explain site location and variation based primarily on surface evidence, the Rouse Hill test excavation programme and further work on the Cumberland Plain has found that:

- ☞ Most areas – even those with sparse or no surface manifestations – contain sub-surface archaeological deposits;
- ☞ Where open sites are found in aggrading and stable landscapes, some are intact and have potential for internal structural integrity. Sites in alluvium possess potential for stratification;
- ☞ While ploughing occurs in many areas of the Cumberland Plain, this only affects deposit up to 30cm deep, and even then ploughed knapping floors have been located which are still relatively intact;
- ☞ Contrary to earlier models for surface open sites, many sites contain extremely high artefact densities, with variability appearing to depend on the range of activity areas and site types present;
- ☞ The complexity of the archaeological record is also far greater than was previously identified on the basis of surface recording and more limited test excavation; and,

- ☒ Gross site patterning is identifiable on the basis of environmental factors: sites on permanent water are more complex than those on ephemeral or temporary water lines.

Distance from stone raw material sources explains some variability in surface assemblages (distance-decay model). Dallas and Witter (1983) originally suggested that sites close to raw material sources e.g. silcrete, would have more cores and knapping debitage and less utilized stone than sites further from the source. Artefacts would tend to be discarded in earlier stages of manufacture and be larger nearer the source. Since this study, new silcrete sources have been identified on the Cumberland Plain, (Corkill 1999, JMcD CHM 1997) and there has been a series of projects which have identified that the relationship between sources and the movement of material around the landscape is more complex (JMcD CHM 2005b, 2006). The model has been less successful as more sources useable cobbles have been discovered across the Cumberland Plain.

5.2 Local Context

Previously recorded sites

A search of the AHIMS database (24.11.06) and subsequent research has identified 85 sites previously recorded within an 8 kilometre radius of the study area. These include primarily open camp sites and isolated finds (Table 1), though areas of potential archaeological deposit (PAD), scarred trees and shelters with rock art are also identified within the larger region.

Table 3: Sites within the Camden region (data derived from DEC AHIMS Register information as at 24.11.06 and review of recent reports).

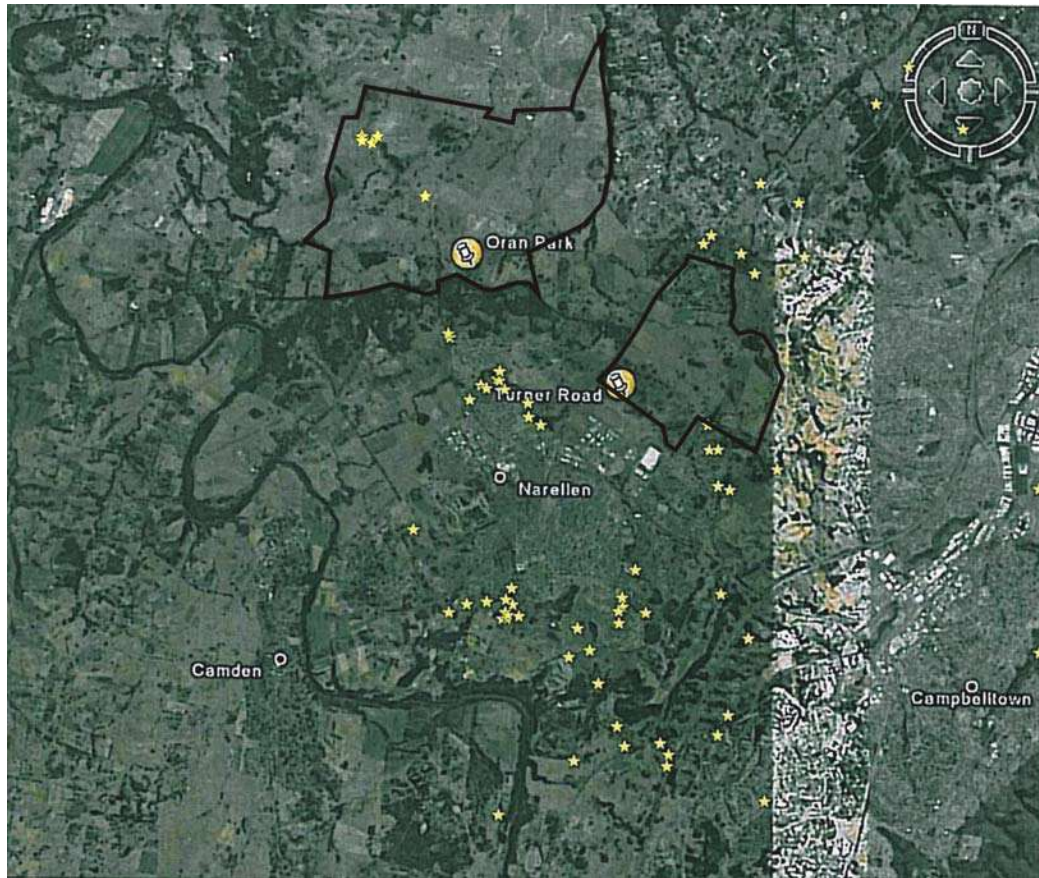
Site type	Number of recordings	%f
Open camp site	41	48.2
Isolated finds	35	41.2
PAD	6	7.0
Scarred Tree	2	2.4
Shelter with art	1	1.2
Total	85	100

Open lithic scatters and isolated finds are the dominant site types, accounting for 89.4% of the total number of recorded sites within the study area. These open surface camp sites comprise of mostly low density artefact scatters.

Carved trees are an extremely rare site type within Australia and are found only within south-eastern Queensland and eastern New South Wales. Of the 97 recorded carved tree sites, the majority occurred on the Western slopes and south as far as Sydney (Attenbrow 2002; Bell 1982). Ten of these sites occur within 100 km of Camden (see Figure 8). Research into the dendroglyphs by Etheridge in the early 20th century suggested that dendroglyphs could be divided into two basic groups – taphoglyphs (indicating an interment) and teleglyphs (indicative of initiation sites). Based on this division, all ten carved trees within the vicinity of Camden are thought to be burial markers. One of these sites, consisting of five carved trees (Figure 9), is recorded as having been located c.10km north-west of the Oran Park Precinct, within the Greendale Estate near Narellan.

One of the recorded scarred trees (where bark is removed for containers, canoes or shields) is located inside the Denbigh curtilage, within the Oran Park Precinct. One dendroglyph site where five carved trees (totemic motifs cut into trees at ceremonial grounds or burials) were recorded and donated to the Australian Museum in the early 20th century (Bell 1982). Though a precise location for these was not recorded, the site appears to have been c.10km northwest of Oran Park. Sites containing scarred or carved trees require trees of at least 150 years in age (or dead mature trees) (allowing for the manufacture of these during the contact-period). Due to the extent and totality of previous land use disturbance throughout the area, these are sites locally and regionally rare.

Figure 5: Previously recorded sites within the region (AHIMS register information and other reports).



Previous surveys within the region

An Aboriginal cultural heritage planning study in the Camden Area c.5km south of the Oran Park Precinct (JMcD CHM 1996), made several predictions regarding the likely locations of Aboriginal archaeological sites, including:

- ☉ Significant sites were likely to occur on elevated ground associated with Narellan Creek;
- ☉ The spurs and ridges associated with the steeper Luddenham landscape group will contain archaeological sites, although they will mostly occur as lag deposits due to previous soil erosion; and,

- ✪ The alluvial sands and terraces of the Nepean River floodplain may contain significant sites, including Aboriginal burial sites, dating to between 5,000 and 20,000 years ago.

Reconnaissance of areas assessed as archaeologically sensitive located five low density open artefact scatters (Clutha 1-5), containing between 2 – 9 artefacts. Three of the open artefact scatters were associated with Narellan Creek. Four isolated finds (IF1-4) were also identified.

A survey conducted by Mary Dallas Consulting Archaeologists in 2003 (Mary Dallas Consulting Archaeologists 2003) concentrated on the area surrounding the historic Denbigh homestead. During the course of this survey, recorded Aboriginal sites included an Aboriginal scarred tree, and four isolated artefacts. The scarred tree is described as being of definite Aboriginal origin on a eucalypt to the NW of the homestead complex. The scar was an elongated ellipse measuring 150 x 25cm with c.10cm of regrowth, a scar size indicated that the bark was procured to make a shield.

The four isolated artefacts consist of a broken edge ground hatchet and three fragments of worked glass. The hatchet is made of basalt, with grinding evident of the distal end and possible hafting notches at the proximal end. The glass has been identified as 19th century bottle glass and was considered as evidence that traditional practices continued through the Cowpastures during initial European settlement (see section 4 above) .

A 'canoe tree' (i.e. a tree bearing a scar from the removal of bark to make a canoe) recorded near Camden Park, located c.8km south of the Turner Road Precinct, is an extremely rare Aboriginal archaeological site type for the Cumberland Plain (English 1994b). Two large scars, measuring 3-5m in length and 80cm wide, were recorded on a dead Eucalypt on the bank of the Nepean River. The site card for this scarred tree was unavailable at the time of undertaking this research and the current condition of these sites is unknown.

Menangle Park and its surrounds have been the focus of extensive archaeological work over recent decades. Twenty-two surface open sites have now been recorded within the Menangle Park release area as have a number of PAD area/sensitive landscapes (Barker 1999, Byrne 1994, Corkill and Edgar 1991, Dibden 2002a, 2002b, 2003a, 2003b; HLA 2004, JMcD CHM 1996, 2004; Kohen and Knight 2000; McDonald and

Brayshaw 1983, McDonald 1990). The sand bodies along the Nepean, which seldom containing surface artefacts, have been identified as having the potential of burial sites.

Haglund (1985) investigated an area for the (then) proposed Mt Annan Botanic Garden and Native Arboretum. One open camp site was located consisting of a sparse scatter of artefacts, as well as six isolated finds. There was no evidence of artefact manufacture and the material was interpreted as debris left behind from hunting and gathering trips through the area. It was noted that the locations more favourable for camp sites and thus more likely to contain higher density sites had been significantly disturbed by previous land use.

A survey for the upgrading of West Camden Sewerage Plant (Oakley 1993), undertaken c. 6km south west of Oran Park, did not identify any Aboriginal sites, but assessed the entire study area as archaeologically sensitive.

Surveys related to the Camden Gas Project (Dibden 2003a, 2003b) occurred from c.5km south of the Turner Road Precinct. Twenty sites were located on both sides of the Nepean River in the vicinity of Camden and Menangle Parks. These consisted of 12 open lithic scatters, seven isolated finds and one scarred tree. Four of the open lithic scatters were assessed as having moderate archaeological significance and the remaining sites assessed as having low or undetermined archaeological significance.

The Narellan Creek Valley, located c.2km south of the Oran Park Precinct, was surveyed in the early 1980s (Hanrahan 1981, 1982a, 1982b). Eight sites were located during the course of three surveys. Site 2 was described as a dense, localised scatter of artefacts and was subsequently excavated. The remaining seven sites were described as minor, sparse artefact scatters, though site five was also subsequently excavated.

Figure 6: Dendroglyphs recorded within 100 km of the study area. Black dots indicate carved tree locations, consisting of between one and five carved trees.

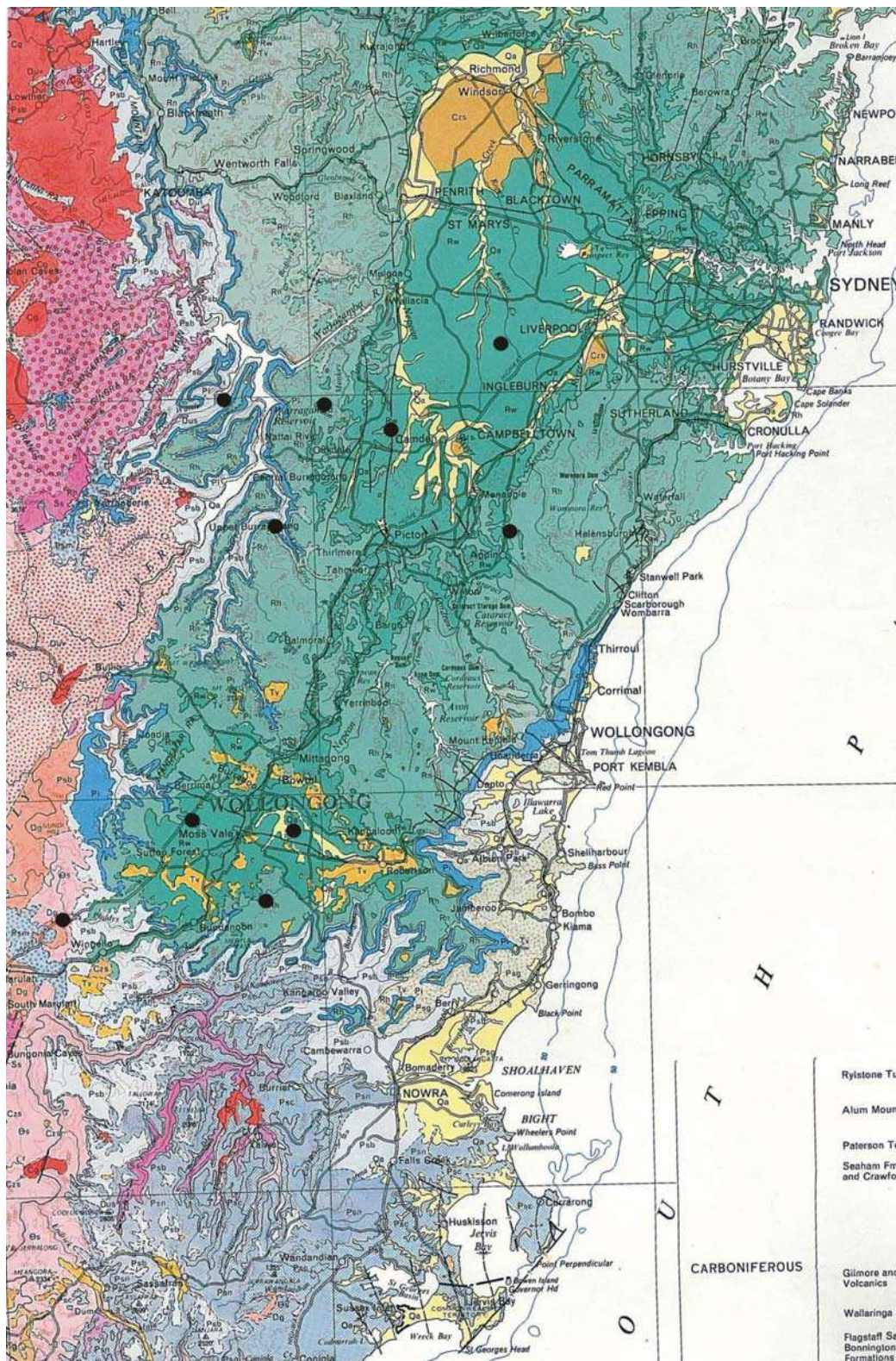


Figure 7: Carved trees originally located at Greendale Estate near Narellan and donated to the Australia Museum by Mr. A Vickery (images taken from Etheridge 1918).

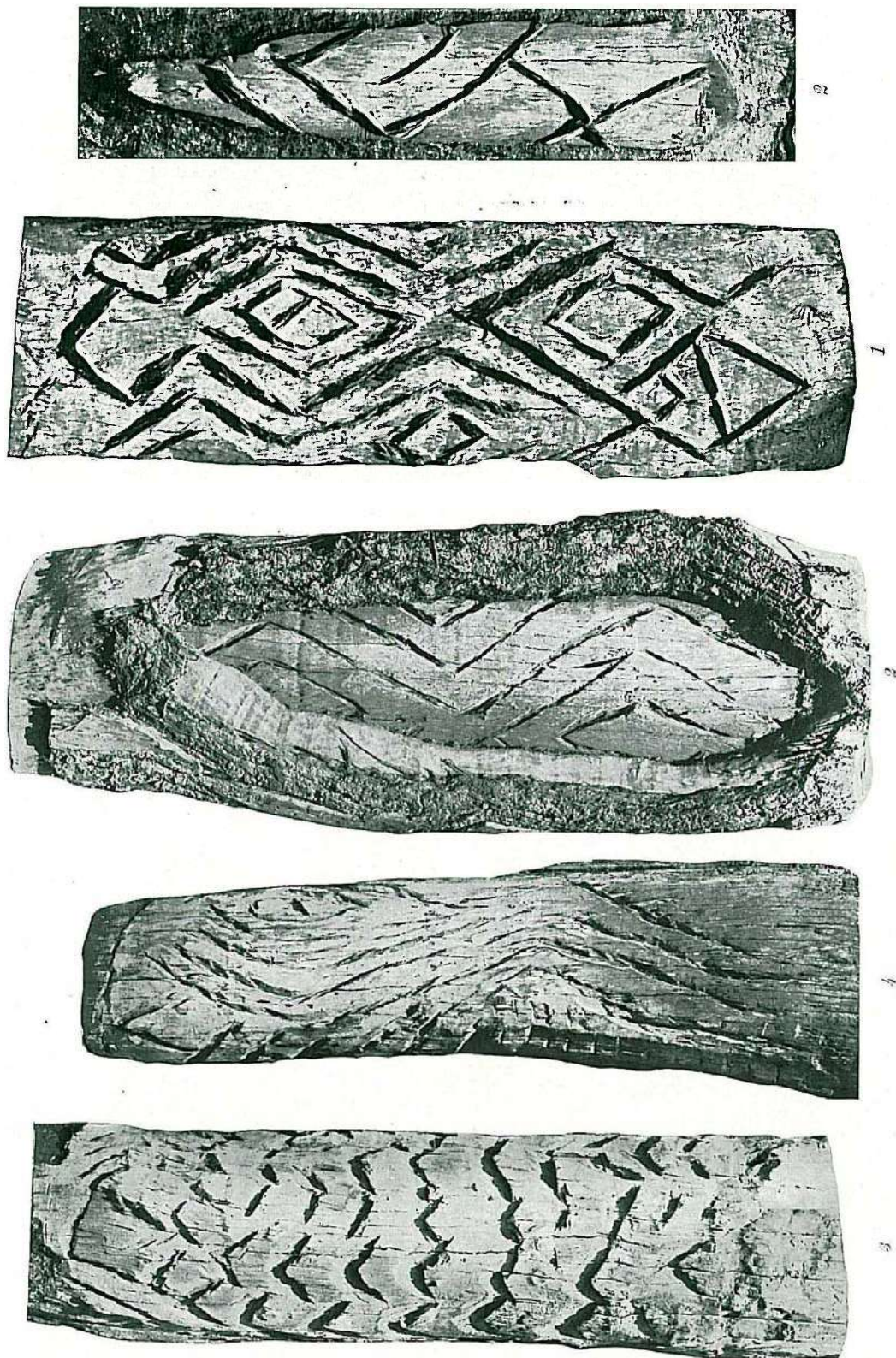
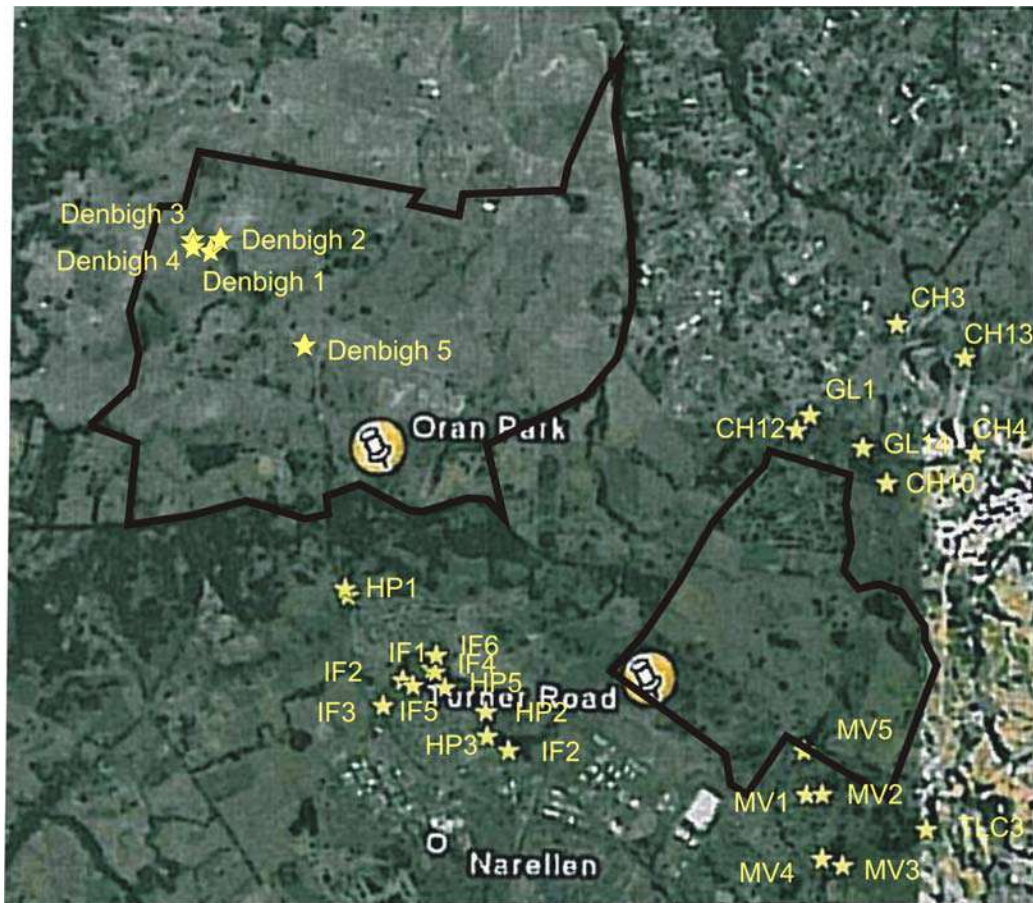


Figure 8: Previously recorded sites within and close to the study area

Manooka Valley is located immediately adjacent to and east of the Turner Road Precinct. Over the course of two surveys (JMcD CHM 2000, 2001), two open camp site (MV3 and MV5) were located, as were three isolated finds (MV1, MV2 and MV4). These sites were located on hillslopes within a disturbed context, with 1st and 2nd order ephemeral creeks providing the closest water source. This was interpreted as a sparse background scatter of material, conforming to the general prediction for the area that evidence will be sparse in the vicinity of temporary water sources.

There have also been a large number of surveys undertaken within the area that have failed to locate any surface sites or areas of potential archaeological deposit. This may have been for reasons relating to visibility (Kohen & Knight 2000; Lee and Somers 1999; Crew 1989; Corkill 1992; Oakley 1993), erosion (Therin 1998; Dallas 1986), land-use disturbance (Byrne 1987) or environmental reasons (McDonald 1992; Dibden 2000, 2001b, 2002a, 2002b; Corkill 1992). This scarcity of artefactual material across the Camden area may also be the result of differential use of the landscape,

whereby the majority of the landscape was occupied on a rare, seasonal or short-term basis and artefactual material simply did not accumulate in these areas.

Previous sub-surface investigations within the region

Three sub-surface investigations have so far been conducted within the Camden area. Test excavations have been conducted within the Narellan Creek Valley, located c.1km south of the Oran Park Precinct (English 1994a; English and Gay 1994; Haglund 1989; Hanrahan 1981, 1982a, 1982b) and further south within Menangle Park (Corkill and Edgar 1991).

Site HP4 (PAD 1 as identified in English 1994) is located c.1.5km south of the Oran Park Precinct, associated with Narellan Creek and was excavated in 1994 (English and Gay 1994). HP4 was found to contain a high density of lithic material with a total of 98 artefacts retrieved by excavation and three by surface collection. Silcrete was the dominant raw material (81%), followed by indurated mudstone (11%), quartz (5%) and fine grained siliceous material (3%). A variety of tool types were recovered, including backed artefacts, which was taken to indicate that occupation of the site had occurred within the 3-5,000 years before present (English and Gay 1994).

In 1989, Sites N2 and N5 were excavated c.3km south of the Turner Road Precinct within the Narellan Creek Valley, on either side of Narellan Creek (Haglund 1989). Site N2 was located at the junction of Narellan Creek, and a large tributary, c.1.3km south of Camden Road. A total of 259 artefacts were recovered from site N2, including a ground edge hatchet and a hammerstone. Silcrete dominated the assemblage (66%), followed by indurated mudstone (24%) and quartz (10%). A variety of tool types were recovered, including backed artefacts. Site N5 was located c.1km further south, east of a large dam. A total of 41 artefacts were recovered from site N5, a total too small for detailed statistical analysis, though with similar ratios of raw material and tool types to that of N2.

The density and type of material recovered from N2 suggested repeated occupation over a considerable period of time. The presence of a backed artefact assemblage was interpreted as indicating occupation of the site was concentrated within the last three millennia. Site N5 was interpreted as representing short term camps by occasional small groups or individuals. Furthermore, it is suggested that the sites identified by

Hanrahan (1982a) represent a network of occupation, with site N2 representing a focal point, around which was located a spread of less permanent camp sites occupied by smaller groups.

Further south, c.10km south of the Oran Park Precinct and within Menangle Park, Sites Menangle Park 1, Menangle Park 2 and Menangle Park 3 were excavated in 1991 (Corkill and Edgar 1991). Menangle Park 1 was located on a ridge spur c.1km north of the Nepean River. Three artefacts were recovered from a surface collection. Given the disturbed nature of the site, excavation focused on a flat section of the spur c.300m west of MP1. Seven artefacts were recovered from this area. A transect linking this area with MP1 recovered no artefacts and so the area of artefact recovery was designated a separate site (MP3). Menangle Park 2 was located within a shallow valley c.2km north of the Nepean River. A total of 18 artefacts were recovered from MP2 by means of surface collection, ninety-five shovel probes and six 0.25 square meter trenches.

Silcrete was the dominant raw material in all excavated and surface collection assemblages, followed by indurated mudstone and with a small quartzite component. All of the Menangle Park sites were subject to disturbance and were assessed as being in poor condition and with low archaeological potential. The two excavated sites (MP2 and MP3) contained low density assemblages consisting primarily of unmodified silcrete flakes and were considered unsuitable for determining the age or use of these sites.

The previous work undertaken within the study area suggests that large watercourses such as Narellan Creek form foci for occupation. The archaeology of the local area is best described as consisting of a sparse scatter of artefacts across the landscape, with larger concentrations of artefacts (interpreted as larger camp sites) found associated with major watercourses and favourable geological and environmental factors.

5.3 Predictions for sites in the regional context

Based on previous work in the region and using general stream order models (after Schreier 1966 and Strahler 1952, McDonald and Mitchell 1994) it has been predicted that within the two precincts, archaeological features will vary according to gross geomorphological factors and proximity to water.

Stream order identification for each precinct will assist in the prediction of variability in the archaeological record. Predictions for how the archaeological record will be subject to the effect of landscape parameters include:

- ⊗ Areas of archaeological potential occur wherever there has been limited prior disturbance.
- ⊗ The nature of sites within these areas of potential is likely to vary: the model used here is aimed at predicting the likely nature of sites across the study area in terms of landscape features.
- ⊗ The nature (density and complexity) of archaeological evidence will vary according to the permanence of water (i.e. stream order), landscape unit and proximity to lithic resources in the following way:
 - ⊗ In the headwaters of upper tributaries (first order creeks) archaeological evidence will be sparse and represent little more than a background scatter;
 - ⊗ In the middle reaches of minor tributaries (second-order creeks) there will be archaeological evidence for sparse but focused activity (e.g. one-off camp locations, single episode knapping events);
 - ⊗ In the lower reaches of minor tributaries (third order creeks) there will be archaeological evidence for more frequent occupation. This will include repeated occupation by small groups, knapping floors, and evidence for more concentrated activities;
 - ⊗ On major creek lines (fourth / fifth order creeks) there will be archaeological evidence for more permanent or repeated occupation. Sites will be complex and some may be stratified, depending on sedimentation processes; and
 - ⊗ Creek junctions (confluences) may provide foci for site activity. The size of the confluence (in terms of stream ranking nodes) could be expected to influence the size and /or complexity of the site.
- ⊗ Ridge top locations between drainage lines will usually contain limited archaeological evidence, although isolated knapping floors or other forms of one-off occupation may occur in such locations.

- ☒ Where naturally outcropping lithic resources such as silcrete occur, these will have been exploited. Evidence for extraction activities (decortication, testing and limited knapping) would be expected in such locations, as might more general occupation evidence:
- ☒ Sites in close proximity to an identified stone raw material source would cover a range of characteristics relating to artefact size and retention of cortex. As a general rule, the general size of artefacts in an assemblage should decrease, as should the percentage of cortex with distance from source.

Predictions for sites within the Oran Park and Turner Road Precincts

Much of the Oran Park and Turner Road Precincts are located in the headwaters and middle reaches of lower order tributaries. Archaeological evidence is expected to be generally sparse and represent a background scatter of artefacts with occasional foci of small scale activities.

South Creek is variably a third or fourth order stream across the Oran Park study area. It represents the major creekline within this study area and is likely to have provided more permanent water and hence the potential for more permanent occupation. Important Aboriginal sites are likely to be located in association with original waterholes in proximity to this and high order stream junctions.

Any sites that are located within the study area will be subject to the effects of fabric contrast soils – common on the shale plains. Artefacts will have accumulated at a common level at the base of the A-horizon. This will generally have eliminated stratigraphic information and makes relative dating of assemblages difficult.

None of the geological materials observed within the study area (Groundtruth Consulting 2006: Appendix 2) are rock types suitable for the manufacture of artefacts. Any stone artefacts identified within the study area would have been imported from more distant resource locations. The absence of any geological materials within the area that may have been utilised for rock shelters, manufacture of artefacts or the preparation of ground edge tools, means that geology is not likely to be an effective indicator of Aboriginal activity.

The degree of prior disturbance has limited the archaeological potential across the majority of the two study areas. Agricultural land is likely to have the highest potential for retaining intact archaeological sites and this is subject to localised areas of low – very high disturbance throughout. Air photo interpretation has assisted in identifying areas of sensitivity within this Agricultural land, where previous land use impacts would appear to be lower and hence the potential for intact archaeological sites is greater.

5.4 Sensitivity Mapping

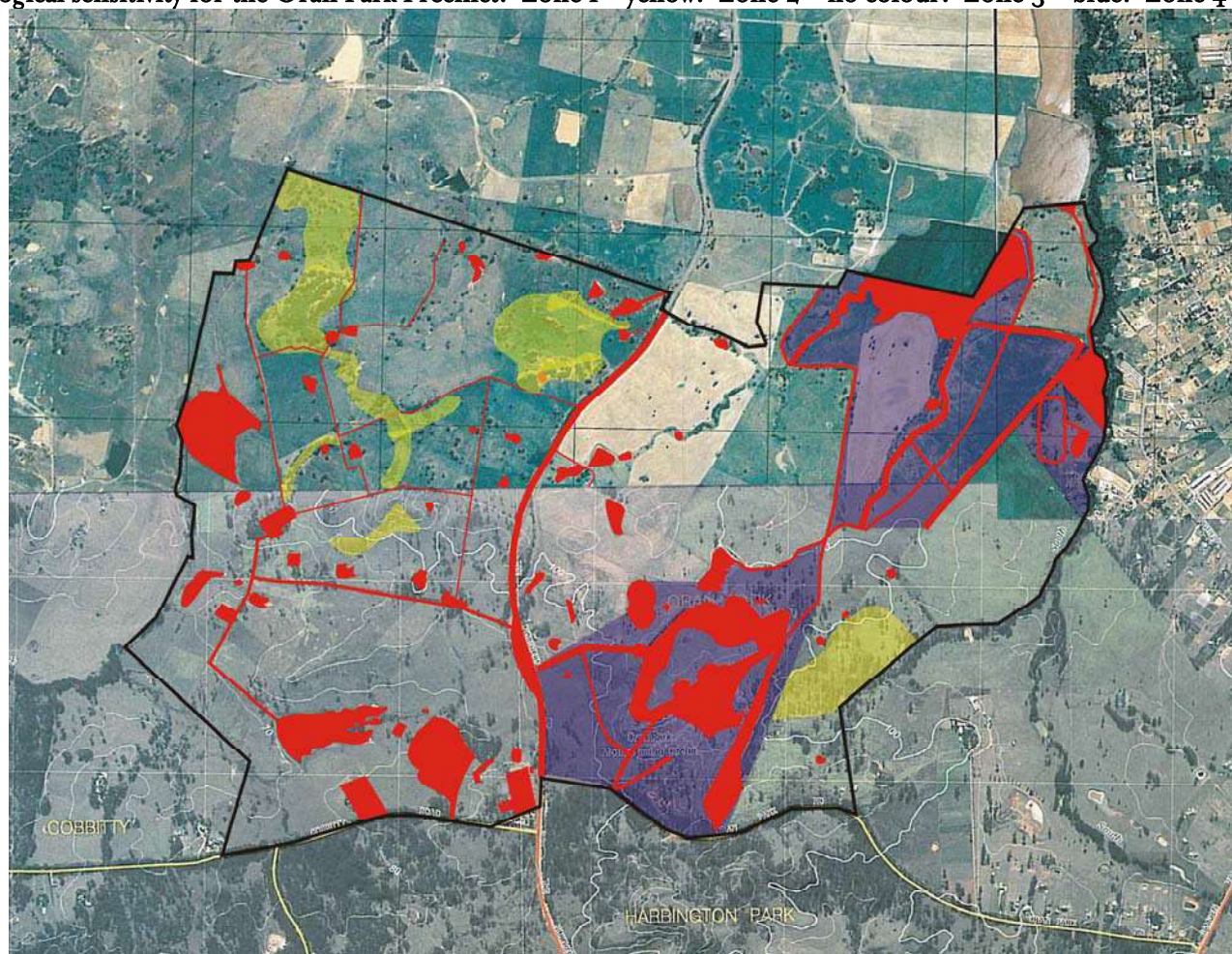
Sensitivity mapping was done based on an interpretation of aerial photos and topographical maps and the land use assessment undertaken by Peter Mitchell. This exercise aims at developing a more detailed assessment of archaeological potential for the two precincts.

The assessment of sensitivity is based on a consideration of land use impacts, practical landscape parameters and high value landscapes (i.e. locally or regionally threatened). Threatened landscapes within this region include first order tributary creeklines, shale ridges and low ridge tops, and shale hillslopes, all of which are present within the study areas.

None of the land within the Oran Park Precinct remains in pristine condition, and the entire precinct has been subject to a range of previous land-use disturbances. Some of the landscapes however, are in significantly better condition than others and zoning has been undertaken accordingly.

- ☉ Zone 1 is land with high potential for containing intact archaeological deposit;
- ☉ Zone 2 is land with good potential for containing intact archaeological deposit;
- ☉ Zone 3 is land with moderate potential for containing intact archaeological deposit; and
- ☉ Zone 4 is land with low potential for containing intact archaeological deposit.

Figure 9: Archaeological sensitivity for the Oran Park Precinct. Zone 1 = yellow. Zone 2 = no colour. Zone 3 = blue. Zone 4 = red.



The sensitivity assessment for the Oran Park Precinct has identified five areas with high potential for containing intact archaeological sites. West of The Northern Road, these focus on the ridge lines surrounding the Denbigh property and the headwaters of first order tributaries where clearing has been at a lesser scale than the majority of the agricultural land. East of The Northern Road, one area of high potential is identified in the headwaters and middle reaches of first and second order creeks that feed into South Creek less than 1km away. Within Oran Park, less than 8% of the land has been identified as having high archaeological sensitivity (Table 4). The majority of the land (59%) is agricultural and has been identified as having good potential for containing intact archaeological deposit.

Table 4: Summary of sensitivity mapping results for the Oran Park Precinct.

Zone	Area (ha)	%
Zone 1	87.77	7.8%
Zone 2	663.3	59.3%
Zone 3	191.54	17.1%
Zone 4	176.39	15.8%
Total	1119	100

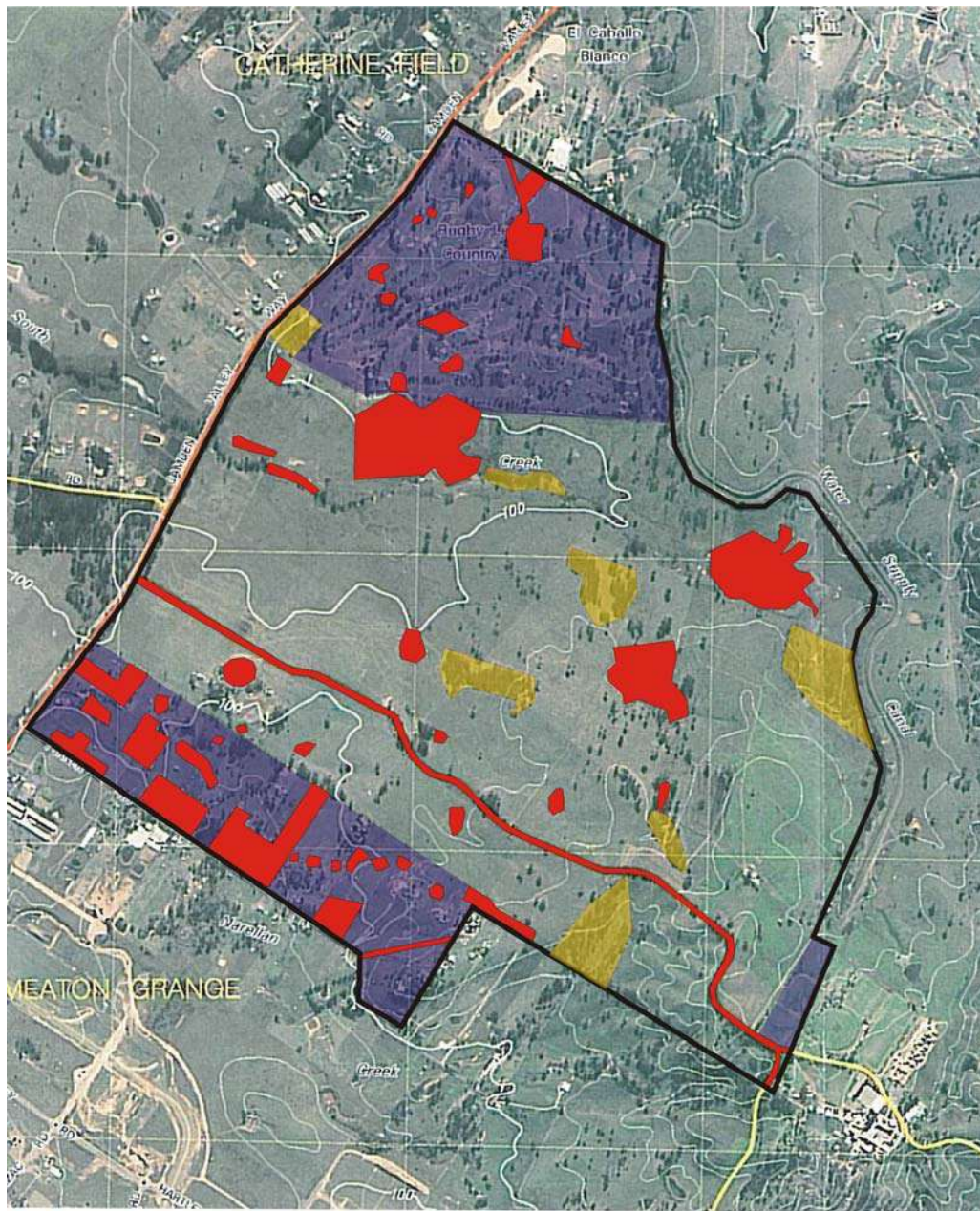
None of the land within the Turner Road Precinct remains in pristine condition, and the entire precinct has been subject to a range of previous land-use disturbances. Some of the landscapes however, are in significantly better condition than others and zoning has been undertaken in the same manner as the Oran Park Precinct.

The sensitivity assessment for the Turner Road Precinct has identified six areas with high potential for containing intact archaeological sites. The southern most potential archaeological deposit (PAD) is within the middle reaches of a minor tributary to Narellan Creek. The remaining areas are all located on gentle to moderate hill slopes and focus on areas where there has been a lesser scale of clearing and cultivation. Within the Turner Road Precinct, less than 5% of the land has been identified as having high archaeological sensitivity (Table 5). The majority of the land (60%) is agricultural and has been identified as having good potential for containing intact archaeological deposit.

Table 5: Summary of sensitivity mapping results for the Turner Road Precinct.

Zone	Area (ha)	%
Zone 1	24	4.5%
Zone 2	325.6	60.7%
Zone 3	127.9	23.9%
Zone 4	58.5	10.9%
Total	536	100

Figure 10: Archaeological sensitivity for the Turner Road Precinct. Zone 1 = yellow. Zone 2 = no colour. Zone 3 = blue. Zone 4 = red.



6. DISCUSSION

Strategic Management Model

In various contexts across the (northern) Cumberland Plain a strategic management approach to Indigenous cultural heritage has been implemented (JMcD CHM 2004; McDonald 1996). This strategy is based both on scientific and cultural (or social) values (JMcD CHM 2002). By identifying the range of representative landscapes with the best conservation potential, and by adding to this identified areas of Aboriginal significance - and targeting these for conservation - a meaningful management outcome should be realised. A similar approach is advocated here to ensure an appropriate management outcome for Indigenous heritage is achieved (JMcD CHM 1997).

The overriding aim of a strategic Indigenous heritage management strategy is the preservation of a representative sample of intact landscapes, to ensure that a range of human responses, as represented by the archaeology, can be protected. Rather than targeting only sites of known extent or known significance (e.g. through sub-surface investigation), zones based on landscape parameters have been defined, and these areas are to be managed on the basis of their conservation potential.

Most of the archaeological sites on the Cumberland Plain are comprised of open stone artefact scatters. Different types of sites provide information on the different ways that the Plain was used by Aboriginal people. It is the variety of site types which have the potential, through their content and arrangement across the landscape, to provide the details which will enhance our general understanding of prehistoric human occupation of this region. It is likely that such a certain variety of sites and types of evidence will be present across the Oran Park and Turner Road Precincts because of the range of environmental landscapes present. We know little detail about this likely range of sites because no previous excavations have been done in these specific landscapes. Because a relatively large proportion of these areas are already disturbed, not all parts of these precincts are likely to contain good contextual information – and indeed the potential for conservation areas is apparently low.

The general principles for a Strategic Management Model (SMM) are as follows:

- ✎ The primary selection criteria for the conservation strategy is identified landscapes which have been minimally disturbed by land-use practices over the last 200 years;
- ✎ A similarly important criteria for the selection of conservation areas is that these landscapes must provide, and be representative of, the range of landscapes present across the study area;
- ✎ An additional criteria is that regionally threatened landscapes, sites of recognised regional significance (i.e. rarity) and areas of significance to the Aboriginal community should be included within the conservation area, as long as these are minimally undisturbed by previous land use disturbance;
- ✎ Areas are also been assessed on the basis of a predictive model of Aboriginal site occupation on the Cumberland Plain, since some areas have a greater potential to contain archaeological sites of high significance than others;
- ✎ Landscapes which have been comprehensively disturbed by sub-surface soil removal or rearrangement are of limited potential for archaeological sites. These require no further archaeological investigation and pose no constraint for development.

Four management zones are devised for the Oran Park and Turner Road Precincts. Each of these is likely to have a different designated management outcome (Table 4; see Figures 9 and 10).

Table 6: Management zones showing management outcomes

Management Zone	Archaeological sensitivity	Management outcome
Zone 1	High potential for intact archaeological evidence	Conservation zone (CCZ) to be selected from this zone. Remainder to be developable.
Zone 2	Good potential for intact archaeological evidence	Conservation zone (CCZ) may be selected from this zone where landscape units are not present as Zone 1. Remainder to be developable.
Zone 3	Moderate potential for intact archaeological evidence	Developable land. Some landscapes may require further work before clearances given.
Zone 4	Low - no potential for intact archaeological evidence	Developable land with no constraints – no further archaeological work required.

Zone 1 is identified as the potential conservation zone. It is envisaged that land identified as requiring conservation would come from this Zone and that no development take place within it. This land would be managed into the future on the basis of its Aboriginal (and other) heritage values.

In keeping with this approach, no archaeological investigation would take place within the land which is to be conserved. Protocols and strategies would need to be developed for the management of this conservation area. Zone 1 lands which cannot be conserved should be the subject of a salvage (mitigation) exercise (see below).

The land falling outside the defined conservation area would all be deemed developable.

The developable land will also been ranked for its archaeological sensitivity and is likely to contain landscapes that are Zone 2 and 3. The SMM presumes that while containing varying sensitivity zones, that these will be developed; i.e. that the archaeology in these areas would be impacted upon by a range of development proposals.

Further archaeological investigation will be required in high sensitivity areas which fall within the developable lands. Archaeological evidence should be salvaged here from a representative range of landscapes as these occur within the overall study area. This salvage will provide archaeological evidence and context for conservation areas and/or mitigate against the destruction by development of sites that may be encountered.

No further archaeological work will be required in areas of low archaeological sensitivity, where sites are assessed as having minimal or no archaeological potential. There is no constraint to development in these areas, and further archaeological works will not be undertaken in these areas. It should be noted that the Aboriginal community may wish to monitor development which takes place in this zone, particularly along stream lines and waterways.

7. CONCLUSIONS

The completion of this Step 1 (according to the GCC Protocols and Methodology) report for the Oran Park and Turner Road Precinct Assessment has identified a range of issues that need to be considered as further work is undertaken for this assessment.

The Cowpastures area appears to have been close to the boundary between several linguistic groups prior to European settlement. As such it may have been on the periphery of these groups' core territories. The nearby Nepean River would have been rich in resources and would have been an important area to Aboriginal groups, as would the more permanent stretches of South Creek.

Previous archaeological investigations, mostly surface survey, have identified a generally low density of sites scattered across this region, generally characterised by isolated artefacts and low density surface lithic scatters. This is likely to in part reflect a selective and sporadic use of the lower hillslopes more distant from the Nepean River and higher order creeks, the effect of extensive European land use since the late 18th century and the low number of sub-surface investigations that has been carried out in this part of the region.

While the designated precinct boundaries do not reflect biogeographic landscape parameters we can still consider a predictive site distribution model for the precincts in terms of our predictive model.

The proposed survey phase of this investigation will target areas of identified archaeological and cultural sensitivity within the two precincts.

Areas which have been identified as containing good potential for intact archaeological sites (Zone I) should be considered as having potential to provide a conservation outcome.

Within the Oran Park Precinct, the majority of land identified as having high potential for containing intact archaeological sites is located within the Denbigh curtilage. Given that there is no proposed development within this part of the Precinct, the Denbigh curtilage may provide an ideal opportunity for achieving a meaningful conservation outcome within the Oran Park Precinct.

8. RECOMMENDATIONS

The following recommendations are based on consideration of:

- ☞ Legal requirements under the terms of the *National Parks and Wildlife Act* (1974) (as amended) which states that it is illegal to damage, deface or destroy an Aboriginal object or Place without first obtaining the written consent of the Director-General, Department of Environment & Conservation, NSW;
- ☞ The Strategic Management Model to be employed in the management of cultural heritage throughout the Oran Park and Turner Road Precincts;
- ☞ The four management zones based on archaeological sensitivity identified across the two Precincts;
- ☞ The results of this Stage I background research, and previous surveys and excavations in the vicinity and the identified areas of social and cultural sensitivity;
- ☞ The interests of the Tharawal Local Aboriginal Land Council, Cubbitch Barta Native Title Claimants Aboriginal Corporation, and other identified stakeholders;
- ☞ The stage of the planning process and the likely impact of the proposed development.

It is recommended that:

1. The Oran Park and Turner Road Precincts should be surveyed on foot in order to identify the presence of surface archaeological sites and to ground-truth the results of sensitivity mapping undertaken in Step I;
2. The fieldwork should focus on areas identified as having particular potential for retaining intact archaeological sites across the study area such as:
 - ☞ Land identified as having a primarily agricultural land use and areas of good – high potential archaeological deposit identified through sensitivity mapping (Zones 1 and 2);
 - ☞ Original water holes at the junction of higher order streams;

- ☉ Fluvial erosional benches above third and fourth order channels.
3. The TLALC and the other interested Aboriginal groups continue to be involved in all stages of the assessment process in accordance with the GCC guidelines;
 4. One copy (each) of this report should be sent to:

Ms. Leeanne Hestelow,
Cultural and Heritage Representative,
Tharawal Local Aboriginal Land Council
PO Box 20
BUXTON, NSW, 2571.

Ms. Glenda Chalker
Cubbitch Barta Native Title Claimants
Aboriginal Corporation
55 Nightingale Road,
PHEASANTS NEST, NSW, 2574

Mr. Des Dyer,
Darug Tribal Aboriginal Corporation
PO Box 441
BLACKTOWN, NSW, 2148

Ms. Leanne Wright,
Darug Custodian Aboriginal Corporation,
PO Box 81,
WINDSOR, NSW, 2756

Mr. Gordon Morton
Darug Aboriginal Cultural Heritage
Assessments
90 Hermitage Road
KURRAJONG HILLS. NSW, 2758

Moran Elders Council
c/o NIAC
2/3 Birch Crescent
EAST CORRIMAL, NSW, 2518

Wadi Wadi Coomaditchie Aboriginal
Corporation
c/o NIAC
2/3 Birch Crescent
EAST CORRIMAL, NSW, 2518

La Perouse Botany Bay Aboriginal
Corporation
c/o NIAC
2/3 Birch Crescent
EAST CORRIMAL, NSW, 2518

Mr. Nigel Robinson
52 Bombala Crescent
QUAKERS HILL, NSW, 2756

Mr. Pat Lock
Carwoola Elders Council
NARELLAN VALE

6. Three copies of this report should be sent to:

Ms Lou Ewins
Manager Cultural Heritage Unit
Sydney Zone, DEC NSW
PO Box 686
PARRAMATTA, NSW, 2134.

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Appendix B. AHIP No. 1101808

Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974 (NPW Act)

Department of Environment & Climate Change NSW

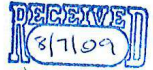


Your reference:

Our reference: AHIMS No. 3112 / FIL06/16729

Document number: 1103710

Contact: Lou Ewins (02) 9995 6802



DART WEST DEVELOPMENTS PTY LIMITED,

Trading as DART WEST,

ABN 32 107 685 370,

PO BOX 228,

NARELLAN NSW 2567

STANDARD POST

ABORIGINAL HERITAGE IMPACT PERMIT

AHIP No: 1101808

Dear Mr Taylor

RE: Turner Road South s90 AHIP

I refer to your application for an Aboriginal Heritage Impact Permit under section 87 and section 90 of the *National Parks and Wildlife Act 1974* (NPW Act), and accompanying information provided for the development of Turner Road South, part of the Turner Road Precinct, Camden, received by the Department of Environment and Climate Change (NSW) (DECC) on 23rd December and further supporting information that has been received on 4th March 2009, 23rd April 2009, 4th May 2009, 29th June 2009 and 1st July 2009 respectively.

DECC has considered the application and supporting information provided and has decided to issue an AHIP subject to conditions. The AHIP is attached.

You should read the AHIP carefully and ensure you comply with its conditions. In particular please note the following conditions:

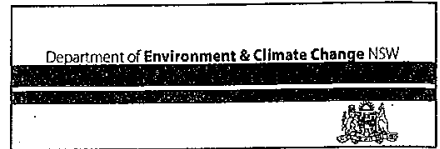
- This AHIP is of 7 years duration and commences on the date it is signed in accordance with the conditions of the AHIP;
- The AHIP authorises the damage, destruction or defacement of any Aboriginal objects within the AHIP area not otherwise protected by the AHIP;
- Provides for the protection of the scarred tree located within the AHIP area;
- Provides a level of protection for the Aboriginal objects located in the conservation area (called 'protected area' in this permit);

Department of **Environment and Climate Change** NSW



Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974 (NPW Act)



- Allows for the participation of local Aboriginal groups in the community collection of Aboriginal objects prior to undertaking activities that will damage Aboriginal objects;
- Requires the development of a DECC approved Aboriginal Heritage Management Plan within 6 months of the grant of this permit. The Aboriginal Heritage Management Plan will provide management strategies for the long term protection and management of Aboriginal objects not authorised to be damaged by the AHIP;
- Requires the AHIP holder to inform developers of multiple lots to apply for and hold separate AHIPs if they intend to take over the development of part of the AHIP area from the AHIP holder. Applicants for separate AHIPs may rely on the existing assessment and consultation information obtained by the AHIP holder to inform their AHIP applications if they wish to carry out works already authorised by this AHIP; and
- Requires the AHIP holder to provide a report to DECC on compliance with the conditions of the AHIP, every 6 months from the commencement of the AHIP for the first 12 months and every 12 months thereafter until the expiration of the AHIP.

You should note that it is an offence under the NPW Act to knowingly destroy, deface or damage, or knowingly cause or permit the destruction or defacement of (or damage to) an Aboriginal object or Aboriginal place without consent. The maximum penalty that a court may impose on an corporation for failing to comply with this AHIP, \$22,000.

You may appeal to the Minister if dissatisfied with any condition of this AHIP. The appeal must be in writing and set out the basis for the appeal. The deadline for lodging the appeal is 28 days after the date this AHIP was issued.

If you have any questions, or wish to discuss this matter further please contact Lou Ewins on (02) 9995 6802.

A handwritten signature in cursive script that reads "Giselle Howard".

Ms Giselle Howard

Director

Metropolitan

(by Delegation)

Date: 2/7/09.

Permit to disturb or move Aboriginal objects on land
Consent to destroy, deface or damage Aboriginal objects

Aboriginal Heritage Impact Permit

Section 87 & 90 of the National Parks and Wildlife Act 1974

Department of Environment & Climate Change NSW



AHIP number: 1101808

AHIMS number: 3112

AHIP Issued To:

DART WEST DEVELOPMENTS PTY LIMITED,
Trading as DART WEST,
ABN 32 107 685 370,
PO BOX 228,
NARELLAN NSW 2567
STANDARD POST

DECC Office issuing this AHIP

Department of Environment and Climate Change (NSW)
Metropolitan Branch
PO Box 668
Parramatta
NSW 2124
02 9995 6801
02 9995 6900

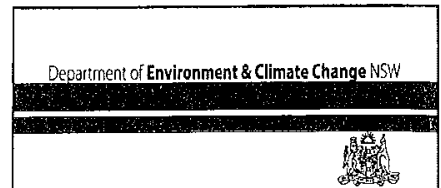
Short description of activity and/or location

Development of land for residential and commercial purposes in Turner Road
South, Camden Local Government Area, New South Wales

Note: A Dictionary at the end of the AHIP defines terms used in this document. Further information about this AHIP is also set out after the Dictionary.

Aboriginal Heritage Impact Permit

Section 87 & 90 of the National Parks and Wildlife Act 1974



PERMIT TO DISTURB OR MOVE ABORIGINAL OBJECTS ON LAND

CONSENT TO DESTROY, DEFACE AND DAMAGE ABORIGINAL OBJECTS

Background

On 23-Dec-2008 an application was made to the Director-General of the Department of Environment and Climate Change (DECC) for a consent under s.90 of the National Parks and Wildlife Act 1974 ("NPW Act") in relation to Aboriginal objects located at Turner Road South Precinct, Camden. The Turner Road Precinct forms part of the South West Growth Centre land release area.

The application is connected to permits (#2921 & 2923) previously issued to the Growth Centres Commission under s87 of the NPW Act for the purposes of archaeological survey, excavation and salvage of Aboriginal objects on a precinct wide basis. Permit # 2921 related to the whole of the Oran Park Precinct and #2923 related to the whole of the Turner Road Precinct. DECC has been advised that the works authorised by the s87 permits have now been completed.

State Environment Planning Policy (Sydney Region Growth Centres), gazetted on 28 July 2006 and amended on 21 December 2007, prescribes the zoning of the land within the area the subject of the AHIP application, including the identification of residential development areas, a local centre, industrial and business land, public and private open space and environment conservation areas within the Turner Road Precinct.

The information provided in support of this application was prepared in accordance with the Growth Centres Protocols for stakeholder involvement and the archaeological assessment methodology that was developed with DECC and Aboriginal community stakeholders.

The Oran Park and Turner Road Waterfront Land Strategy, 1 May 2009, prepared by the Department of Planning (which now includes the former Growth Centres Commission) applies to riparian areas within the area the subject of the AHIP application. The strategy will allow for the restoration, rehabilitation and revegetation of riparian corridors to a more natural state and provide links with remnant vegetation within the Oran Park Precinct and Turner Road Precinct. The strategy sets out the outcomes and requirements for controlled activities occurring within the riparian areas including environmental protection works. Development of land which complies with the requirements of the strategy will be exempt from the requirement to apply for a controlled activity approval under the Water Management Act 2000, but will still require development consent.

The present application covers 280 hectares within the Turner Road Precinct, referred to as Turner Road South precinct and seeks to obtain approval for the development of land within the AHIP area including proposed bulk earth works, the construction of residential dwellings and commercial premises, schools, parks and riparian protection works which will damage known Aboriginal objects within the AHIP area. The applicant has applied for a permit of 20 years duration.

An assessment of the Aboriginal cultural heritage assessment of values of the AHIP area was previously conducted on a precinct wide basis and extensive community consultation has been undertaken by both the AHIP holder and DECC in relation to the proposal described in the application.

Aboriginal Heritage Impact Permit



It is proposed that a combined s87 and s90 AHIP be granted to the AHIP holder to carry out the works, subject to conditions.

The AHIP:

- Provides for the protection of one scarred tree located within the AHIP area and a level of protection for the Aboriginal objects located in the conservation area (called 'protected area' in this permit);
- Allows for the participation of local Aboriginal groups in the community collection of Aboriginal objects prior to undertaking activities that will damage Aboriginal objects;
- Requires the development of a DECC approved Aboriginal Heritage Management Plan within 6 months of the grant of this permit. This Aboriginal Heritage Management Plan will provide management strategies for the long term protection and management of Aboriginal objects not authorised to be damaged by the AHIP;
- Authorises the damage, destruction or defacement of any Aboriginal objects within the AHIP area not otherwise protected by the AHIP; and
- Is of 7 years duration from the date of commencement. DECC has agreed to give favourable consideration to an extension of the duration of the AHIP if the AHIP holder provides information which demonstrates how the protected areas described in this permit will be protected for the long term.

A list of defined terms and information about this AHIP are included at the end of this AHIP.

Permit issued subject to conditions

A permit is issued to disturb or move on land Aboriginal objects identified in Schedule C but only as expressly provided by the conditions of this AHIP.

This permit is issued pursuant to section 87 of the National Parks and Wildlife Act 1974.

Consent given subject to conditions

A consent is given to destroy, deface and damage Aboriginal objects identified in Schedule E, in accordance with the conditions of this AHIP.

This consent is given pursuant to section 90 of the National Parks and Wildlife Act 1974.

Ms Giselle Howard

Director

Metropolitan

(by Delegation)

DATED: 02-Jul-2009

Aboriginal Heritage Impact Permit

Section 87 & 90 of the National Parks and Wildlife Act 1974



CONDITIONS OF AHIP

Schedule A: Land to which this AHIP applies

The 280 hectare area bounded to the west by Camden Valley Way, to the north west by Pt2 DP 360116 and Lot 1 DP 795836, to the north by the Sydney Water Supply Canal and Lot 21 DP1126152, to the east by Lot 3251 DP835245, Lot 2 DP1042471, Lot 1 DP81599, and to the south by Lot 12 DP1041381 and several land holdings along Turner Road (see Attachment 1– map of land to which this AHIP applies).

The Lot and DP numbers for this land are the following:

- Lot 90 DP 1137298
- Lot 91 DP 1137298
- Lot 92 DP 1137298

Schedule B: Protected Aboriginal objects

1. Burials

All human remains in, on or under the land.

2. Aboriginal objects as identified on AHIMS

AHIMS SITE ID	SITE NAME	SITE FEATURE	EASTINGS	NORTHINGS	DATUM
52-2-3561	TR5	Open Artefact Scatter	295536	6232477	AGD 66 (AMG)
52-2-3559	TR3	Scarred Tree	294198	6232608	AGD 66 (AMG)

3. Protected area within the land to which this AHIP applies

NAME	LOCATION	LOT & DP	EASTINGS	NORTHINGS	DATUM – AGD or GDA
TR-1	Turner Road South, north east section	within Lot 92 DP1137298	295289	6232691	AGD 66 (AMG)

The location of all Aboriginal objects listed in Schedule B are shown in Attachment 2a – Indicative Layout Plan of Turner Road South showing location of known Aboriginal objects and conservation areas and Attachment 2b – Plan of TR-1. Please note, the eastings and northings in Schedule B (3) are those at point A in Attachment 2b.

Aboriginal Heritage Impact Permit**Schedule C: Aboriginal objects which may be disturbed or moved****Community Collection of known Aboriginal Objects**

The collection of the following Aboriginal objects, but excluding any Aboriginal objects described in Schedule B.

SITE NAME	SITE TYPE	SITE FEATURE	EASTINGS	NORTHINGS	DATUM – AGD or GDA
52-2-3558	TR2	Open Artefact Scatter	294959	6231797	AGD 66 (AMG)
52-2-3560	TR4	Open Artefact Scatter	295368	6231755	AGD 66 (AMG)
52-2-3562	TR6	Open Artefact Scatter	295497	6232129	AGD 66 (AMG)
52-2-3563	TR7	Open Artefact Scatter	295109	6232857	AGD 66 (AMG)

Schedule D: Temporary storage location

Australian Museum, 6 College Street, Sydney, NSW 2010.

Schedule E: Aboriginal objects to be destroyed, damaged or defaced

All other Aboriginal objects within the AHIP area including those listed below. For avoidance of doubt, this does not include any of the protected Aboriginal objects described in Schedule B, unless authorised by the conditions of this AHIP.

SITE NAME	SITE TYPE	SITE FEATURE	EASTINGS	NORTHINGS	DATUM – AGD or GDA
52-2-3558	TR2	Open Artefact Scatter	294959	6231797	AGD 66 (AMG)
52-2-3560	TR4	Open Artefact Scatter	292368	6231755	AGD 66 (AMG)
52-2-3562	TR6	Open Artefact Scatter	295497	6232129	AGD 66 (AMG)
52-2-3563	TR7	Open Artefact Scatter	295109	6232857	AGD 66 (AMG)

Aboriginal Heritage Impact Permit



Schedule F: Proposed works

All activities associated with the development of land within the AHIP area including bulk earthworks, the construction of residential dwellings, commercial premises and associated infrastructure, related community facilities, schools, parks and riparian protection works.

All activities associated with the community collection of Aboriginal objects.

The above description of works does not include works which may have occurred before the commencement of this AHIP.

COMMENCEMENT AND OVERSIGHT OF ACTIVITIES RELATING TO THIS AHIP

Commencement of AHIP

1. This AHIP commences on the date it is signed unless otherwise provided by this AHIP.
2. The AHIP holder must not commence activities that would damage, destroy or deface any Aboriginal objects specified in Schedule E, unless the following have taken place:
 - (a) the community collection of objects described in Schedule C has been completed; and
 - (b) the AHIP holder has notified the DECC in writing that the community collection has been completed.

Duration of AHIP

3. Unless otherwise revoked in writing, this AHIP remains in force for **7 years** from the date of commencement.

Note: DECC agrees to give favourable consideration to the extension of the duration of this AHIP if the AHIP holder (a) provides information which demonstrates how the protected areas will be securely protected for the long term and (b) complies with the conditions of this AHIP throughout its current duration.

Responsibility for compliance with conditions of AHIP

4. The AHIP holder must ensure that all persons involved in activities or works covered by this AHIP (whether employees, contractors, sub-contractors, agents or invitees) are made aware of and comply with the conditions of this AHIP.
5. The AHIP holder must ensure that all persons involved in activities or works covered by this AHIP are provided with information relating to the Aboriginal cultural heritage values of the AHIP area, the location of any protected Aboriginal objects, the location of any protected areas and the protocols that are to be followed for the management and protection of any protected areas and/or the protected Aboriginal objects specified in Schedule B.

Aboriginal Heritage Impact Permit



6. The information referred to in condition 5 must be consistent with this AHIP and the DECC approved Aboriginal Heritage Management Plan for the AHIP area. The information referred to in condition 5 may be provided as part of any site induction training.
7. The AHIP holder must provide DECC with a report demonstrating how they are complying with the conditions of this AHIP. The report must be provided in writing. The report must be provided every 6 months for the first year of the AHIP starting from commencement of the AHIP and every 12 months thereafter for the duration of the AHIP.

Information to be provided to future developers and purchasers

8. The AHIP holder must prepare an information package which sets out the responsibilities of individual lot owners in relation to Aboriginal cultural heritage issues and the options available to the owners in relation to the carrying out of works authorised by this AHIP.

Note: Any information package prepared may be tailored for particular lots to reflect any works, which may have already been undertaken on those lots by the AHIP holder.

9. The AHIP holder must submit the proposed information package to DECC for approval at least 4 weeks prior to needing to provide the information to an individual lot owner.
10. DECC may approve the proposed information package unconditionally or subject to written conditions.
11. The AHIP holder must provide a copy of the approved information package to any person who proposes to erect a residential dwelling on the land prior to the land being disposed of by the AHIP holder.
12. If the AHIP holder proposes to dispose of land within the AHIP area to a person who is a developer of multiple lots or who intends to develop multiple lots, the AHIP holder must ensure that the person is made aware prior to the disposal of the land of the need to apply for a separate AHIP.

Note: DECC agrees that if an applicant for a separate AHIP proposes to undertake works already authorised by this AHIP, the applicant may rely on the cultural heritage assessment and consultation information obtained by the AHIP holder to inform the AHIP application.

Notification of commencement of work

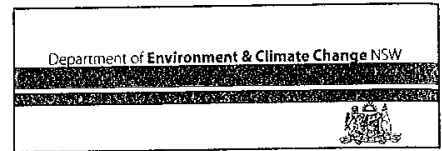
13. Prior to the proposed commencement of activities authorised by this AHIP, the AHIP holder must give the DECC office written notice of the proposed commencement date of those activities.

GENERAL OPERATIONAL CONDITIONS

Activities must not move or disturb Aboriginal objects

14. The AHIP holder must not move or disturb any Aboriginal objects within the AHIP area, except as otherwise expressly provided by a condition of this AHIP.

Aboriginal Heritage Impact Permit



Activities must not damage Aboriginal objects

15. The AHIP holder must not damage Aboriginal objects within the AHIP area other than those Aboriginal objects specified in Schedule E.

PROTECTION OF ABORIGINAL OBJECTS

Protection of Aboriginal objects

16. The AHIP holder must ensure that Aboriginal objects specified in Schedule B (1) are not damaged.
17. The AHIP holder must ensure that Aboriginal objects specified in Schedule B (2) are not damaged other than damage that might occur to objects located within protected areas as a consequence of riparian protection works.
18. To the fullest extent possible, each protected Aboriginal object must be clearly marked so as to provide a clear visual marker to persons on foot or in vehicles in the vicinity of that Aboriginal object. This condition applies from the commencement of the AHIP until the completion of any works undertaken within the vicinity of each protected Aboriginal object.

Note: The AHIP holder remains responsible for complying with condition 16 and 17.

19. The AHIP holder must ensure that persons entering the land such as employees, contractors, sub-contractors, agents and invitees have a copy of a map that clearly identifies the protected Aboriginal objects listed in Schedule B.
20. Appropriate sediment control measures must be installed, operated and maintained so as to prevent any disturbance of a protected Aboriginal object.

Note: The Aboriginal Heritage Management Plan as approved by DECC may also contain provisions for the protection and management of the protected Aboriginal objects.

Protected area

21. The AHIP holder must not damage any Aboriginal objects within the protected areas other than damage that may occur as a consequence of Riparian Protection Works. This condition does not apply to Aboriginal objects specified in Schedule B (1).
22. To the fullest extent possible, the **protected area** must be clearly marked and/or fenced so as to provide a clear indication to persons on foot or in vehicles in the vicinity of a protected area. This condition applies from the commencement of the AHIP until the completion of any works undertaken within the vicinity of TR1.

Note: The AHIP holder remains responsible for complying with condition 21.

23. A protected area must not be used for the storage of plant, equipment or any materials including fill.

Note: The Aboriginal Heritage Management Plan as approved by DECC can also contain provisions for the protection and management of the protected areas.

Aboriginal Heritage Impact Permit



Aboriginal Heritage Management Plan

24. The AHIP holder must ensure that at a minimum, the draft Aboriginal Heritage Management Plan – Turner Road South (February 2009) submitted to DECC as part of the application for this AHIP is revised as follows:
- a) Ensuring that the Aboriginal Heritage Management Plan is consistent with the terms and conditions of this AHIP;
 - b) Providing further detail about the management strategies described in Section 3 of the draft plan, including:
 - I. Describing the cultural, archaeological and environmental values of each protected area or type of protected area;
 - II. Describing steps to be taken to ensure the long term protection of the protected areas;
 - III. Detail about the interpretive signage to be provided at each protected area, North East Park and any other suitable locations within the AHIP area;
 - IV. Providing further detail about the opportunity for representatives of local Aboriginal groups to have input into the wording of interpretive signage within the AHIP area; and;
 - V. Describe the approach to protecting the Aboriginal Cultural Heritage values within the protected areas and in particular, how those values will be maintained or enhanced as a consequence of Riparian Protection Works
25. The updated Aboriginal Heritage Management Plan must be provided to DECC for approval within **6 months** of the commencement of the AHIP.
26. DECC may approve the Aboriginal Heritage Management Plan unconditionally or subject to written conditions.
27. The AHIP holder must implement the Aboriginal Heritage Management Plan as approved by DECC.
28. In the event of any inconsistency between the Aboriginal Heritage Management Plan and this AHIP, the terms and conditions of the AHIP prevail to the extent of any inconsistency.

Securing long term protection for protected areas

29. The AHIP must regularly liaise with DECC about measures being taken by the AHIP holder to secure the long term protection of the protected areas, including the progress of any discussions with the local council.

COMMUNITY COLLECTION AND RELATED ACTIONS

Community Collection

Aboriginal Heritage Impact Permit



30. The AHIP holder must provide a reasonable opportunity for community collection of Aboriginal objects described in Schedule C to be undertaken by the local Aboriginal groups.
31. Any community collection of Aboriginal objects must be undertaken under the supervision of a qualified archaeologist.
32. The AHIP holder must ensure that information about Aboriginal objects collected as part of the community collection is recorded in the following manner:
 - a) that the locations of the Aboriginal objects are recorded using GPS co-ordinates; and
 - b) the artefact scatter pattern is recorded.
33. The AHIP holder must notify DECC in writing when the community collection authorised by this AHIP are completed.

Temporary storage of Aboriginal objects recovered as part of community collection under this AHIP or salvage under prior permits

34. Any Aboriginal objects salvaged in accordance with s87 permits #2921 and #2923 and/or collected by way of community collection authorised by this AHIP must be moved as soon as practicable to the temporary storage location nominated in Schedule D, pending the resolution as to the long term storing or keeping of the Aboriginal objects.
35. The AHIP holder is responsible for the protection of any Aboriginal objects stored at each temporary storage location other than when the objects are at the Australian Museum.

Long term Storage of Aboriginal objects recovered as part of community collection under this AHIP or salvage under prior permits

36. The AHIP holder must use its best endeavours to ensure that Aboriginal objects recovered as part of community collection authorised by this AHIP are moved as soon as practical to the proposed keeping place that is to be established under AHIP # 1100632, issued to Landcom/GDC on 26th May 2009 for Oran Park East.

NOTIFICATION AND REPORTING CONDITIONS

Human remains

37. If any human remains are disturbed in, on or under the land, the AHIP holder must:
 - a. not further disturb or move these remains;
 - b. immediately cease all work at the particular location;
 - c. notify DECC's Environment Line on 131 555 and the local police as soon as practicable and provide any available details of the remains and their location; and

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- d. not recommence any work at the particular location unless authorised in writing by the DECC.

Incidents which may breach the Act or AHIP

38. The AHIP holder must notify the DECC office in writing as soon as practicable after becoming aware of:
 - a. any contravention of s.90 or s.86 of the Act not authorised by an AHIP;
 - b. any contravention of the conditions of this AHIP.

Reports about incidents which may breach the Act or AHIP

39. Where an authorised officer reasonably suspects that an incident which may have breached the Act or AHIP has occurred, the officer may request in writing that the AHIP holder prepare a written report about that incident. The report must detail:
 - a. the nature of the incident;
 - b. the nature and location of relevant Aboriginal objects or Aboriginal places, referring to and providing maps and photos where appropriate;
 - c. the impact of the incident on Aboriginal objects or Aboriginal places;
 - d. any conditions of an AHIP which may have been breached; and
 - e. the measures which have been taken or will be taken to prevent a recurrence of the incident.
40. The report must be provided to the DECC office by the due date specified by the authorised officer.

Due date for report about the community collection of Aboriginal objects

41. The report detailing the community collection of Aboriginal objects must be provided to the DECC office within **3 months** of the completion of the community collection authorised by this AHIP.

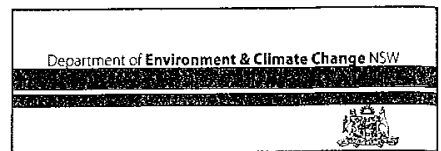
This report must include:

- a) details of the nature and type of Aboriginal objects collected at each site listed in Schedule C;
- b) a description of the methods of collection, the location recorded with GPS and the artefact scatter pattern recorded.

Report about damage to Aboriginal objects under s.90

42. The AHIP holder must prepare a report about the activities relating to the damage of Aboriginal objects as consented to by this AHIP, as soon as practicable after completing the activities. The report must:
 - a. include a short summary of the report;
 - b. provide details of the objects which were fully or partially damaged in the course of undertaking the activities;

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- c. describe any ongoing consultation with or involvement of representatives of local Aboriginal groups in relation to this AHIP;
- d. describe how any protected Aboriginal objects were managed during the period covered by the AHIP;
- e. comment on the effectiveness of mitigation measures that were implemented; and
- f. comment on the effectiveness of the management plan which was in place.

The report must be provided to the DECC office **3 months** prior to the expiration of this AHIP.

The AHIP holder must notify DECC in writing when the activities authorised by this AHIP are completed.

Provision of copies of reports to local Aboriginal groups

43. The AHIP holder must provide a plain English summary of each report provided to the DECC under this AHIP to each local Aboriginal group, within 14 days after each report is provided to the DECC.

Copy of this AHIP to be provided to local Aboriginal groups

44. The AHIP holder must provide a copy of this AHIP to each local Aboriginal group, within 14 days of receipt of the AHIP from DECC.

OTHER GENERAL CONDITIONS

Indemnity

45. The AHIP holder agrees to indemnify and keep indemnified, the Crown in right of NSW, the Minister administering the Act, the Director-General of DECC, and their employees, agents and contractors, in the absence of any willful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from
- a. any damage or destruction to any real or personal property; and
 - b. injury suffered or sustained (including death) by any persons arising out of or in connection with any activities undertaken pursuant to this AHIP.

Release

46. The AHIP holder agrees to release to the full extent permitted by law, the Crown in right of NSW, the Minister administering the Act, the Director-General of DECC and their employees, agents and contractors, in the absence of any willful misconduct or negligence on their part, from all suits, actions, demands and claims of every kind resulting from
- a. any damage or destruction to any real or personal property; and
 - b. injury suffered or sustained (including death) by any persons arising out of or in connection with any activities undertaken pursuant to this AHIP.

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Ongoing obligation to comply with due dates

47. Where a condition of this AHIP specifies a date by which something must be done or ceased to be done, the AHIP holder has a continuing obligation to comply with that condition after that date (subject to any written revocation or variation of the AHIP by DECC).

Written notice

48. Any requirement to provide written notice to the DECC office in this AHIP may be complied with by faxing the notice to the DECC office's fax number or by sending by registered post to the DECC office's address. The DECC office's contact details are specified at the front of this AHIP.

DICTIONARY

In this AHIP, unless the contrary is indicated the terms below have the following meanings:

Aboriginal object(s)	has the same meaning as in the Act
Aboriginal place	has the same meaning as in the Act
Act	means the National Parks and Wildlife Act 1974
AHIMS	means the Aboriginal Heritage Information Management System maintained by DECC
AHIP holder	means each person listed on the cover page under the heading "AHIP issued to"
Application	means the completed application form and all other documents in written or electronic form which accompanied the application when it was lodged or which were subsequently submitted in support of the application.
Authorised officer	means an employee of the DECC who is appointed as authorised officer under s.156B of the Act
Community collection	means the recovery of Aboriginal objects described in Schedule C(2) by representative(s) of the local Aboriginal groups
Damage	in relation to an Aboriginal object or Aboriginal place, unless otherwise specified in this AHIP, includes destruction and defacement
DECC	Department of Environment and Climate Change (NSW)

Aboriginal Heritage Impact Permit



DECC office	means the office listed on the cover page of this AHIP
Director-General	means the Director-General of DECC
Land	means the land described at Schedule A
Local Aboriginal groups	<p>means the following groups:</p> <p><i>Tharawal Local Aboriginal Land Council</i> 220 West Parade, Couridjah, NSW 2571 Contact: Donna Whillock</p> <p><i>Cubbitch Barta Native Title Claimants Aboriginal Corporation</i> 55 Nightingale Road, Pheasants Nest, NSW 2574 Contact: Glenda Chalker</p> <p><i>Darug Custodian Aboriginal Corporation</i> PO Box 81, Windsor, NSW 2756 Contact: Leanne Watson</p> <p><i>Darug Tribal Aboriginal Corporation</i> PO Box 441, Blacktown, NSW 2148 Contact: Sandra Lee</p> <p><i>Darug Aboriginal Cultural Heritage Assessments</i> 90 Hermitage Road, Kurrajong Hills, NSW 2758 Contact: Gordon Morton</p>
Protected Aboriginal objects	means those Aboriginal objects which are described in Schedule B
Protected areas	Means those areas specified in Schedule B(3)
Riparian Protection Works	means those works designed to protect the riparian areas located within the AHIP area and undertaken in accordance with the Oran Park and Turner Road Waterfront Land Strategy, 1 May 2009, prepared by NSW Department of Planning.
Temporary storage location	means a location specified at Schedule D



INFORMATION ABOUT THIS AHIP

Responsibilities of AHIP holder

The AHIP holder is responsible for ensuring the AHIP holder's employees, contractors, sub-contractors agents, invitees are made aware of and comply with the conditions of this AHIP.

Penalties for breach of the Act

Significant penalties can be imposed by a court for failure to obtain or breach of an AHIP. The DECC can also issue penalty notices.

Responsibility for obtaining all approvals and compliance with applicable laws

The AHIP holder is responsible for obtaining and complying with all approvals necessary to lawfully carry out the work referred to in this AHIP, including but not limited to development consents.

Other relevant provisions of the National Parks and Wildlife Act

Newly identified Aboriginal objects need to be notified to the Director-General under s.91 of the Act using the form available on www.environment.nsw.gov.au

Stop work orders and interim protection orders may be issued in certain circumstances to protect Aboriginal objects or places.

Obligation to report Aboriginal remains under Commonwealth laws

The AHIP holder may have additional obligations to report any discovery of Aboriginal remains under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth).

Exercise of investigation and compliance powers

Officers appointed or authorised under the Act may exercise certain powers and functions, including the power to enter land.

Duration of AHIP

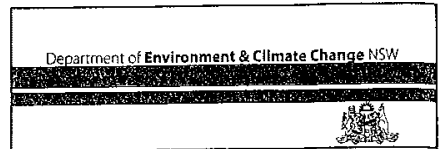
This AHIP remains in force for the period specified in the AHIP.

Variation of AHIP

The AHIP holder may apply to the DECC office in writing for a variation of any conditions of an AHIP. Requests for variations may need to be accompanied by evidence of further consultation with interested parties including Aboriginal stakeholders and in some cases may include payment of fees. The conditions of an AHIP may be varied at any time at the discretion of the Director-General. The AHIP holder may appeal a decision of the Director General to vary the conditions of the AHIP.

Transfer of AHIP

Aboriginal Heritage Impact Permit



An AHIP is not transferable. The surrender or revocation of an existing AHIP could occur at the same time an AHIP is issued to a new AHIP holder.

Revocation of AHIP

An AHIP may be revoked at any time at the discretion of the Director General. Prior to revoking the AHIP, the AHIP holder will be given notice and an opportunity to make submissions. The AHIP holder will be notified in writing of the final decision. The AHIP holder may appeal a decision to revoke the AHIP.

Entry to land

An AHIP does not automatically entitle its holder to enter land for the purpose of conducting work related to the AHIP. The AHIP holder is responsible for obtaining permission to enter land from the owner and/or occupier of the land.

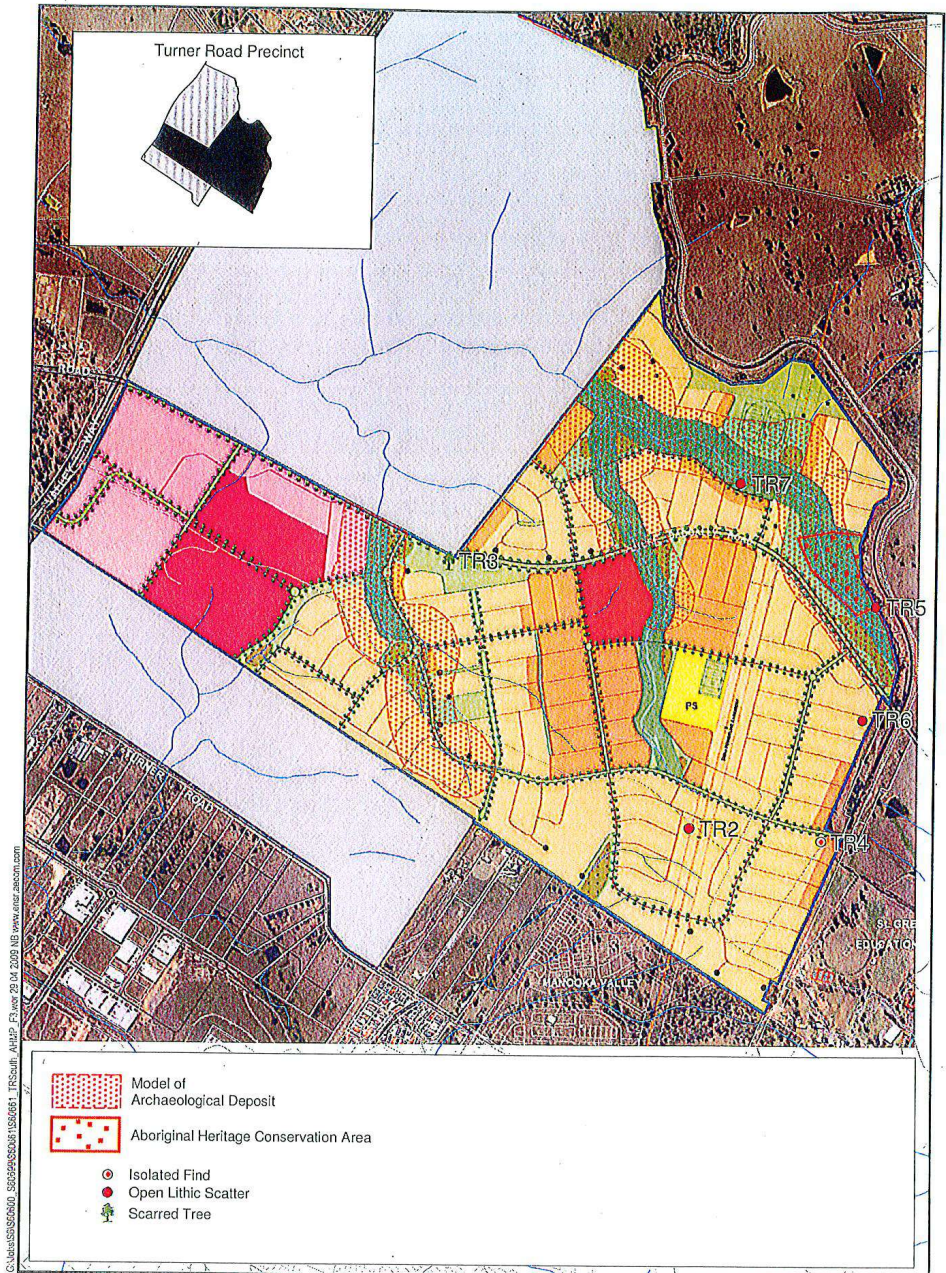
Disclosure of information pursuant to lawful requirement

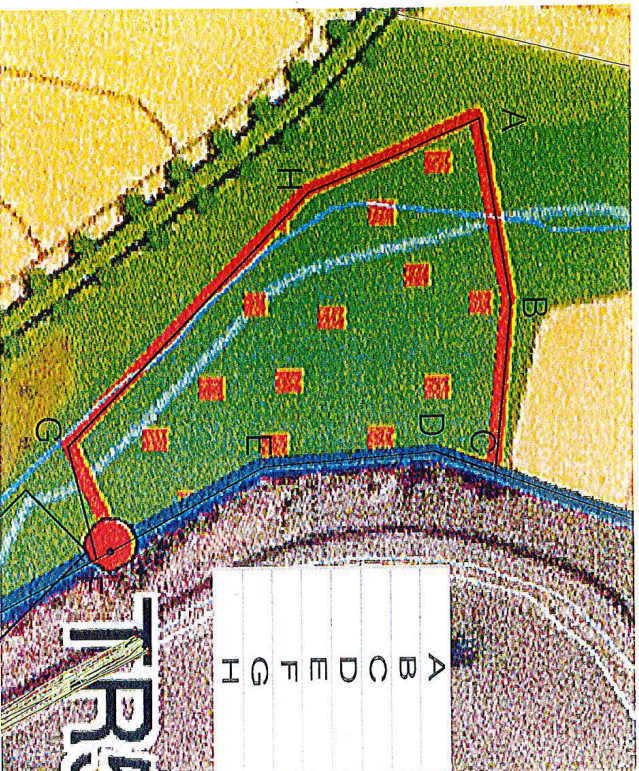
This AHIP does not prevent the disclosure of any information or document in DECC's possession in accordance with any lawful requirement.

Making copies of reports

By providing a report, the AHIP holder acknowledges that DECC can use the information in that report to inform its regulatory functions, note details of that report in AHIMS and include a copy of the report in its library which may be available to members of the public.

DECC is able to make copies of any reports provided to DECC under this AHIP.





A	295289	6232691
B	295395	6232709
C	295494	6232700
D	295481	6232665
E	295489	6232566
F	295541	6232469
G	295476	6232453
H	295330	6232593

Projection AGD66
Coordinates (AMG)

ATTACHMENT 2B- PLAN OF TR-1

Variation of Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

Your reference:
Our reference: AHIMS No. 3112 / FIL06/16729 – SF16/10922
Notice number: C0001979
Contact: Fran Scully (02) 9995 6830

DART WEST DEVELOPMENTS PTY LIMITED
PO BOX 228
NARELLAN
NSW 2567

NOTICE OF VARIATION OF ABORIGINAL HERITAGE IMPACT PERMIT NO. 1101808

Issued pursuant to section 90D(5) *National Parks and Wildlife Act 1974* (NPW Act)

BACKGROUND

- A. Dart West Developments Pty Ltd (the applicant) applied to the Office of Environment and Heritage (OEH) to vary Aboriginal Heritage Impact Permit No. 1101808 (the AHIP) granted under section 90D of the NPW Act. The AHIP authorises the carrying out of harm to certain Aboriginal objects within Turner Road South, part of the Turner Road Precinct of the South West Growth Centre.
- B. OEH received the application on 4 March 2016.
- C. OEH has considered the matters set out in section 90K of the NPW Act.

VARIATION OF ABORIGINAL HERITAGE IMPACT PERMIT

- 1. OEH has decided to grant this variation. By this notice OEH varies AHIP No. 1101808 in the following manner:

Variation

Duration of AHIP on Page 6 of 16, which states that:

3. Unless otherwise revoked in writing, this AHIP remains in force for **7 years** from the date of commencement.

is replaced by:

3. Unless otherwise revoked in writing, this AHIP remains in force for **7 years** from the date of extension, that is until **30 June 2023**.

Variation of Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

2. You must provide a copy of this AHIP variation notice to each Registered Aboriginal Party referenced in AHIP number 1101808, within 14 days.

S. Harrison

SUSAN HARRISON

Senior Team Leader Planning

Greater Sydney Region

(by Delegation)

Date: 30 June 2016

INFORMATION ABOUT THIS VARIATION NOTICE

- Details provided in this notice will be available on OEH's Public Register in accordance with section 188F of the NPW Act.
- You should read this Variation Notice carefully and ensure that you continue to comply with all conditions of the original AHIP 1101808 issued on 2 July 2009, as amended by this Variation Notice. The format of this Variation Notice requires that it must be read in conjunction with the original AHIP.

When this notice begins to operate

- The variations to the AHIP specified in this notice begin to operate immediately from the date of this Variation Notice, unless another date is specified in this notice.

Variation of this notice

- This Variation Notice may only be varied by subsequent notices issued by OEH.

Appeals against this decision

- You can appeal against this decision to the Land and Environment Court. The deadline for lodging the appeal is 21 days after the date that this notice was issued.

Appendix C. Extensive AHIMS Search Results

Jacobs Group (Australia) Pty Ltd - North Sydney

Date: 22 June 2022

Level 7 177 Pacific Highway
North Sydney New South Wales 2060

Attention: Alexandra Seifertova

Email: alexandra.seifertova@jacobs.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -34.031, 150.7723 - Lat, Long To : -34.0221, 150.7878, conducted by Alexandra Seifertova on 22 June 2022.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

8	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : SINSW

Client Service ID : 694520

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-3561	TR-5	AGD	56	295536	6232477	Open site	Valid	Artefact : 3		102190
	<u>Contact</u> T Russell	<u>Recorders</u>	Jo McDonald Cultural Heritage Management see GML							
								<u>Permits</u>	2792,3112	
52-2-3562	TR-6	AGD	56	295497	6232129	Open site	Valid	Artefact : 5		102190
	<u>Contact</u> T Russell	<u>Recorders</u>	Jo McDonald Cultural Heritage Management see GML							
								<u>Permits</u>	3112	
52-2-3563	TR-7	AGD	56	295109	6232857	Open site	Valid	Artefact : 257		102190
	<u>Contact</u> T Russell	<u>Recorders</u>	Jo McDonald Cultural Heritage Management see GML							
								<u>Permits</u>	3112	
52-2-3564	TR-8	AGD	56	294955	6232941	Open site	Valid	Modified Tree (Carved or Scarred) : 1		102190
	<u>Contact</u> T Russell	<u>Recorders</u>	Jo McDonald Cultural Heritage Management see GML							
								<u>Permits</u>		
52-2-3724	TR1 (Campbelltown)	GDA	56	295440	6232910	Open site	Valid	Artefact : 171		
	<u>Contact</u>	<u>Recorders</u>	AECOM Australia Pty Ltd - Sydney							
								<u>Permits</u>		
52-2-3727	TR Transect G	GDA	56	294630	6233120	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	AECOM Australia Pty Ltd - Sydney							
								<u>Permits</u>		
52-2-3728	TR Transect H	GDA	56	295370	6232950	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	AECOM Australia Pty Ltd - Sydney							
								<u>Permits</u>		
52-2-3747	CG-OCS-08	GDA	56	295719	6232719	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Miss.Melanie (Duplicate of #6086) Thomson							
								<u>Permits</u>	4303	

** Site Status

Valid - The site has been recorded and accepted onto the system as valid

Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.

Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground

Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 22/06/2022 for Alexandra Seifertova for the following area at Lat, Long From : -34.031, 150.7723 - Lat, Long To : -34.0221, 150.7878. Number of Aboriginal sites and Aboriginal objects found is 8

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

**Appendix D. Site Induction Information Sheet on Aboriginal
Heritage Matters**



Site Induction Information Sheet on Aboriginal Heritage Matters

Introduction

As part of the planning for Gregory Hills and Central Hills Business Park, significant research has been undertaken into the history of Aboriginal activity on the two sites. This work involved extensive archaeological investigations and consultation with a wide range of Aboriginal groups. The work was undertaken over the period of 2007 – 2009.

This work informed a planning response to Aboriginal heritage matters, including the identification of sites of significance, detailed documentation of the site history, determination of cultural heritage values and establishment of an Aboriginal heritage protection area. An Aboriginal Heritage Management Plan is also being prepared to guide future activities on the sites.

An Aboriginal Heritage Impact Permit (AHIP) has been issued to Dart West Developments to enable development to proceed on both sites. The AHIP contains a range of conditions, including conditions requiring visitors to the site such as contractors and consultants to be made aware of the Aboriginal heritage issues relating to the site. This document addresses that condition. All consultants and contractors must review this document and be aware of the Aboriginal heritage issues and ensure their activities on site pay due regard to these issues.

Aboriginal Cultural Heritage Values

The Aboriginal heritage values identified for the land subject to this AHIP relate to the presence of archaeological evidence of past Aboriginal activity. Aboriginal sites have been identified through surface surveys and archaeological excavations. Specific scientific aspects of Aboriginal heritage include:

- a pre-contact landscape of extensive but low intensity Aboriginal activity with evidence of strategic defensive positioning of camp sites within a cultural interaction zone between different language groups;
- pre-contact Aboriginal activity evident in the widespread stone artefacts present within the topsoil up to 300m from major creeks and 100m from minor watercourses;
- pre-contact artefact manufacturing areas evident in stone artefact concentrations on areas with good outlook over the adjacent creek valleys;
- Aboriginal campsites in elevated areas over 150m away from creeks in areas with good outlook over the major creek valleys;
- inter-regional cultural connections demonstrated in the presence of small quantities of silcrete artefact raw material from a source 100km to the south and connections to the raw material sources to the north through the presence of large proportions of distinctive silcrete stone from sources 15 km to the north; and
- a scarred tree which indicates pre-contact Aboriginal implement manufacture.

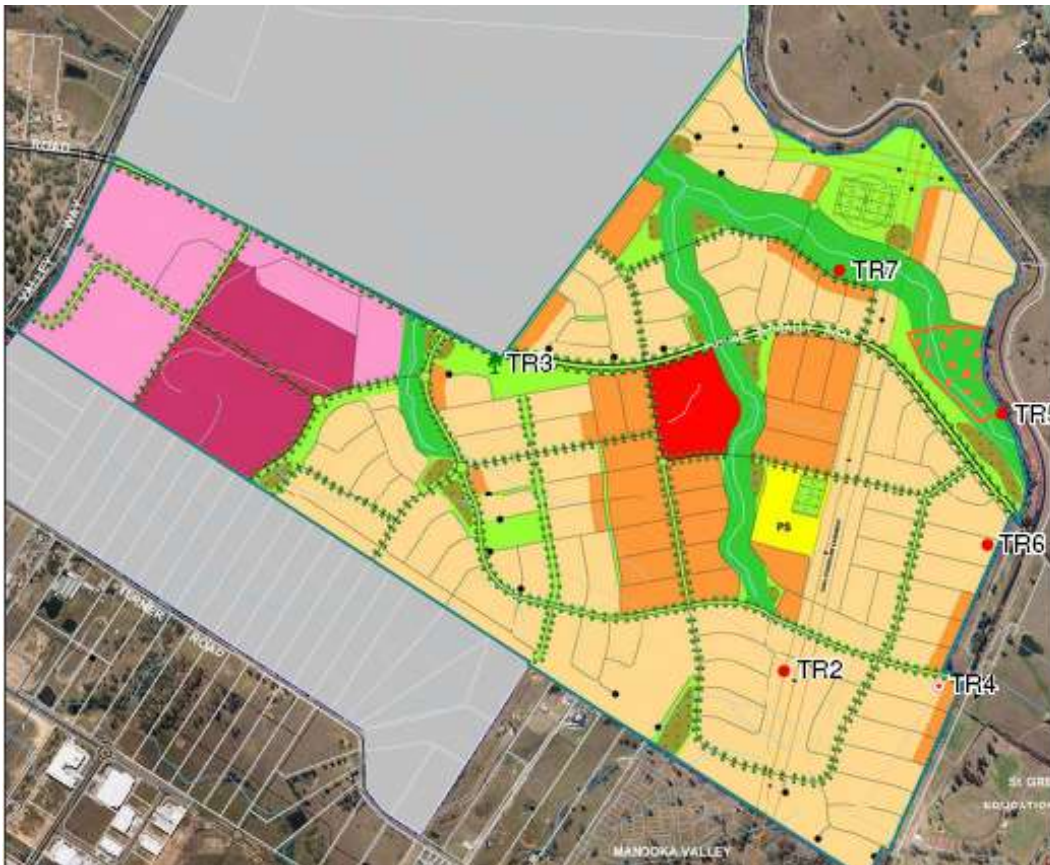
(Source: AECOM Draft Aboriginal Heritage Management Plan – February 2009)

Aboriginal heritage sites with archaeological evidence are all of value to the Aboriginal community through the tangible connection that it represents with pre-European Aboriginal cultural life. Aboriginal stakeholder groups were invited throughout the comprehensive assessment project to identify Aboriginal community values of the study area. The Aboriginal community heritage value was identified by Glenda Chalker as:

“The sites, places and the landscape are all significant to the Cubbitch Barta people, they are our link from our forefathers to us in the present, and our link to future generations.”

Remaining Areas of Significance

The AHIP identifies a number of sites which were collected prior to construction commencing. After this collection, three sites of significance will remain on the Gregory Hills site, as shown in the plan below.



TR3 is a scarred tree which will be incorporated into Thomas Donovan Park. No excavation of construction is to be undertaken within 15m of this tree. No material is to be stored within the protective fencing surrounding this tree. TR5 is an open artefact scatter which is located inside the boundary of the Aboriginal heritage protection area TR1 (shown as the red dotted area near TR5). A management plan for this area is being prepared. Protective fencing will be installed in the interim and consultants and contractors are not to enter the fencing without prior permission of Dart West Development and are to be accompanied at all times by an employee of Dart West Developments. The remaining sites (TR2, TR4, TR6 and TR7) were collected prior to construction commencing.

If a consultant or contractor is uncertain of their obligations at any time while on site, they should contact David Taylor, General Manager, Dart West Developments, on 0425 343 671.

Prepared by Dart West Developments (Version 1 – 20 July 2009)