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The Illawarra Regional Strategy 2006-31
The Illawarra Regional Environmental Plan No. 1
The Shellharbour Local Environmental Plan 2000 (SLEP)
The Shellharbour Rural Local Environmental Plan 2004
The Wollongong Local Environmental Plan 1990
The Draft Wollongong Local Environmental Plan 2009 (awaiting gazettal)
The Draft West Dapto Local Environmental Plan 2009 (awaiting gazettal)

Maps

Department of Lands 2006. Albion Park 90281N 1:25 000 Scale Topographic Map.
Department of Lands 2006. Robertson 90284N 1:25 000 Scale Topographic Map

Images

Figures 1.1 and 1.2 © Delfin Lend Lease Ltd 2009/2010.
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APPENDIX A AHIMS RESULTS

This information is not suitable for public display and has therefore been removed from this report. The tables and map layouts have been left blank to indicate that information has been removed.

APPENDIX A.1 MAPS

Table A.1 Site Feature Codes used in Figure A.1

AHIMS Site Feature Code	Site Feature
AFT	Artefact
SHL	Shell
TRE	Modified Tree (Carved or Scarred)
ART	Art Site (Pigment or Engraved)
PAD	Potential Archaeological Deposit
GDG	Grinding Groove
STA	Stone Arrangement

This information is not suitable for public display.

Figure 5.1



Locality Map and AHIMS Site Search Results

0 1 km



APPENDIX A.2 TABLES

Table A.2 Sites in the immediate vicinity of the study area

[illegible]

APPENDIX B STAKEHOLDER CONSULTATION

APPENDIX B.1 STAKEHOLDER REGISTRATION OF INTEREST

Krissy Moore

From: S Robinson [srobinson@exemail.com.au]
Sent: Monday, 2 November 2009 5:34 PM
To: krissy@australarchaeology.com.au
Subject: FW: Expression of Interest

FYi

Yours in UNITY

Sharralyn Robinson
Illawarra Local Aboriginal Land Council
CEO
Ph: 42 26 3338
Fax: 42 26 3360
M: 0410 125463



I acknowledge the traditional owners and custodians of the land I work on as the first people of this country.

From: S Robinson [mailto:srobinson@exemail.com.au]
Sent: Monday, 2 November 2009 5:32 PM
To: "krissy@australarchaeology.com.au"
Subject: Expression of Interest

Hi Krissy

Thankyou for sending the information regarding the Aboriginal Archaeological and Cultural Heritage Calderwood project.

The Illawarra Local Aboriginal Land Council as a key stakeholder in the protection and preservation of Aboriginal Culture and Heritage would like to express an interest in this project.

Yours in UNITY

Sharralyn Robinson
Illawarra Local Aboriginal Land Council
CEO
Ph: 42 26 3338
Fax: 42 26 3360
M: 0410 125463



I acknowledge the traditional owners and custodians of the land I work on as the first people of this country.



**Wollongong Northern Districts
Aboriginal Community**

15th October 2009

Secretary: Ms Karen Gough
38 Lachlan Street
Thirroul NSW 2515
T: 02-42686283
E: wombarra@hotmail.com

To: Krissy Moore
Austral Archaeology Pty Ltd
Shop 1, 92 Percival Road
Stanmore NSW 2048

Re: Aboriginal Heritage Project, Calderwood NSW

Dear Krissy,

I am writing to register an interest in the project on behalf of members of Wollongong Northern Districts Aboriginal Community group (WNDAC).

Several of our members have a strong cultural connection to the Illawarra/Shellharbour area and may have cultural information that is relevant to the Calderwood project.

Yours sincerely,

Karen Gough
(Secretary WNDAC)

APPENDIX B.2 STAKEHOLDER RESPONSE TO METHODOLOGY

Krissy Moore

From: S Robinson [srobinson@exemail.com.au]
Sent: Thursday, 26 November 2009 11:21 AM
To: krissy@australarchaeology.com.au
Subject: RE: Calderwood Urban Development Information Pack
Attachments: Let Terms and conditions Survey 09.doc

Hi Krissy

Thankyou for forwarding the information pack regarding the Calderwood project.

This site may provide evidence of past Aboriginal occupation, a source of information a place of our Ancestors. Within the larger landscape of the study area, and around areas of similar topography between the Escarpment and coastal plain there are several registered Aboriginal sites.

The Illawarra local Aboriginal Land Council welcomes the opportunity to participate in the assessment of this parcel of Country. Once informed of Dates, Days and Times we can arrange Aboriginal site Officers to participate in the Field assessment in December and January 2010.

Please find attached a copy of the ILALC terms and Conditions outlining our Insurance Coverage and fee structure.

If you require any further information regarding this matter, please don't hesitate to contact me on the number listed below.

Note: Krissy for your information, I am aware that at this stage the WNDAC does not have the relevant structures in place to participate in Aboriginal Site Work.

Yours in UNITY

Sharralyn Robinson
Illawarra Local Aboriginal Land Council
CEO
Ph: 42 26 3338
Fax: 42 26 3360
M: 0410 125463




I acknowledge the traditional owners and custodians of the land I work on as the first people of this country.

A response from WNDAC was not received. Please see consultation log for details.

APPENDIX B.3 CULTURAL INFORMATION OBTAINED DURING CONSULTATION

This appendix has been removed at the request of the Illawarra Local Aboriginal Land Council. However, the cultural information provided in Section 8.4 of this report has been deemed appropriate for public display and therefore has been retained.

APPENDIX B.4 STAKEHOLDER RESPONSE TO DRAFT REPORT



Illawarra Local Aboriginal Land Council

3 Ellen Street WOLLONGONG NSW 2500 Ph: 42263338 Fax: 42263360

16 February 2010

Austral Archaeology Pty Ltd
Attn: Krissy Moore
Shop 1, 92-96 Perceval Road
STANMORE NSW 2048

Dear Krissy

Calderwood draft Aboriginal Archaeological and Cultural Heritage Assessment Report

Thankyou for forwarding the draft Aboriginal Archaeological and Cultural Heritage assessment report. I have reviewed the report and wish to make the following comments:

- The ILALC agrees with the recommendations within the report noting 10.2 (7) and recommending that an Aboriginal Site Officer attend also should any unrecorded Aboriginal Archaeological material be encountered.
- As a large number of artefacts were found during the field study, it is recommended that an Aboriginal Site Officer be present to monitor any excavation or construction work carried out on this development site.
- All Cultural information provided by the ILALC Site Officers is confidential, this information must be held in confidence by Austral Archaeology Pty Ltd, but cannot be included in this report as this information is not for public knowledge.

If you require any further information regarding these comments, please don't hesitate to contact me on the number listed below.

Yours in Unity

Sharralyn Robinson
CEO
PH: 42 26 3338
FAX: 42 26 3360
M: 0410 125 463

From: WNDAC Secretary
38 Lachlan Street,
Thirroul NSW 2515



**Wollongong Northern Districts
Aboriginal Community**

19th February 2010

To: Krissy Moore, Austral Archaeology

RE: CALDERWOOD PROJECT- ABORIGINAL
ARCHAEOLOGICAL AND CULTURAL HERITAGE ASSESSMENT.

Dear Krissy,

Thank you for providing WNDAC with a copy of the draft Aboriginal Archaeological and Cultural Heritage Assessment report for the Calderwood Urban Development Project. On the whole we think the report is thorough and written respectfully, which we appreciate.

We offer the following comments and some further historical references for your consideration.

Archaeology Study

We are happy with the fieldwork component of the study which has identified 34 previously unregistered Aboriginal archaeological sites. We agree with your recommendation that parts of the study site warrant further archaeological testing in the areas you identified as PADs 02-03-04 and 05.

We would like you to follow up your theory that CP-PAD-05 (containing more than 60 artifacts *in situ*) is a possible primary knapping location, and CP-PAD-03 (containing 11 artifacts, *in situ*) might be a secondary flake reduction location.

Our members would also like to know more about two of the isolated finds, CP-IF-04 (stone axe) and CP-IF-05 (grinding pestle).

Stone Tools

The two “whole” stone tools you found are fundamentally important Aboriginal cultural implements and can have various cultural meanings.

With regard to the grinding stone- this tool is primarily associated with important women’s work and was used to process wild seeds into flour for making a seed-cake which is baked in ashes. These nutritious cakes were an important local Aboriginal food source.

Local information about seeds used as a traditional food resource was given by Rodney Mason to DEC for *Murni Dhungang Jirrar- Living in the Illawarra*, (DECC 2005) and quotes him (page 12):

“The combining of different parts of plants such as flower petals, seeds and leaves provided nutritionally balanced meals”.

Plant Resources

Seeds of some plant species that were used in the Illawarra include: Kurrajong (particularly high in protein fat and carbohydrates (p 44), Coast Tea Tree (medicine made from seed capsules and leaves crushed (p 49), Spiny Headed Mat-rush (flour for damper p 52), Banglow Palm (seeds eaten after crushing, washing and soaking for a week to remove toxins and baking p 69), Turpentine (seeds ground and eaten p 76), Two-veined Hickory (p 82) and Wattle (p 83).

A cross referencing with a Flora and Fauna study for the site will show if any of these species are still present within the site. Areas where they occur should be further investigated. The Calderwood Project area includes the lower part of Johnson’s Spur, which the ILALC site officer identified as a travel route called *Merrigong*, which means “barter”.

A significant amount of natural vegetation remains in this area and we believe it has a Nature Conservation zoning in Shellharbour City Council. The area retains a high Aboriginal cultural significance that is compatible with a Conservation Zone for important local natural resources.

Satellite images of the area show that Johnsons’ Spur is an important part of the natural green corridor linking Macquarie Pass National Park (which is linked to Lake Avon in the north and the Burrawangs to the west) with the Budderoo National Park to the south of Jamberoo.

Mill and Grindstone

A very interesting discussion of the Aboriginal cultural significance of the mill and grindstone tool is given by Annette Hamilton, Professor of Anthropology and Comparative Sociology at Macquarie University, in Chapter 3 of *Traditional Aboriginal Society* (1980). Based on her field research with Western Desert Aboriginal women, Hamilton says:

“The grindstone and mill was the exclusive possession of women and were passed on from female siblings to their daughters, as collective property, each set being located at a particular habitation site adjacent to the main water source in a grass-seed bearing area... The heavy base stones were not usually carried from camp to camp. They were left behind in particular areas and belonged to groups of kinswomen who were alone entitled to use them”.

(Reference: Hamilton, Annette, Dual Social System: Technology, Labour and Women’s Secret Rites in the Eastern Western Desert of Australia (first published in *Oceania*, 51, 1 (1980), page 4-19). Re-published in: Edwards, W.H., (editor), *Traditional Aboriginal Society*, Macmillan Company of Australia, Crows Nest, 1987, (Chapter 3 pages 34-52), Page 38-39.)

(We acknowledge there is no certainty that the same traditional customs were practiced by Illawarra Aboriginal women in relation to grindstones, so you do not need to include it in this report. We include it to show a line of inquiry that Aboriginal researchers may wish to follow up.)

Care of Artefacts

Although the stone tools were found in a “disturbed state” (near a vehicle track on the eastern part of study area 6) which gives them limited archaeological value, they have very high cultural value in themselves. They help tell us some things about Aboriginal use of the site and further analysis could yield information about where they came from, if they were made locally or carried in and from where, and how they are linked to the Travel and Trade routes that exist in and around the project site.

We think it is most likely that the base grinding stone was disturbed from a nearby place on the site and is “from” the site. A natural carrier, such as flood waters, may have moved the tools within the site or they were moved after 1816, when the grassy fields around the Macquarie Rivulet in the Calderwood area became used as a paddock for European animals.

You give some information about the type of stone used (basalt) and dimensions. Could you please add their weight and perhaps a drawing or photos? Further information of this kind has great educational value for the Aboriginal community. It can assist to teach young sites officers about artifact identification and allows comparison with stone implements found at other places, such as Sandon Point, Bellambi Point, Bass Point and other known stone tool-making sites in the Illawarra.

We think it is very important these stone tools are looked after and kept in a safe place for further study by Aboriginal researchers in the future. Your recommendation for a Care and Control of artifacts strategy for all archaeological material recovered during excavation and surface collection at Calderwood is appropriate for this site.

We also agree that all maps and GPS coordinates for the locations of Aboriginal sites and any other sensitive cultural information should be placed in confidential appendices that are not to go on public display. The restriction should include Figure 5.1 (AHIMS Search Results).

Cultural Heritage

We particularly like the inclusion of an Aboriginal historical background section in your report, which identifies early contact history as an important theme when considering the cultural heritage of Calderwood.

Two of the first five land grants for the Illawarra included:

1816 George Johnston snr, 1500 acres NW side of Macquarie Rivulet and
1816 Andrew Allan, 700 acres South side of Macquarie Rivulet.

The other first land grants were on the coast because access by sea was how Europeans got into the Illawarra until an over-land route was found. (*A History of Aboriginal People of the Illawarra 1770-1970*, DECC, 2005, page 14)

Your mapping of previous archaeology confirms that Aboriginal camps were located at several places along the Tongarra (Marshall Mount Creek) and Macquarie River (rivulet).

As well, two of the 19 main Aboriginal camps mentioned in the 1838 Wollongong Blanket Census were at Tongarra and Thampa. Thampa was one of the biggest Aboriginal camps at the time which shows these camps persisted into the transitional historical period.

(*A History of the Aboriginal People of the Illawarra 1770-1970*, DECC, 2005, page 23 and Organ (1990) page 224-5)

Cultural Landscape

The Calderwood development area, as you note, lies between two Traditional Aboriginal travel routes.

The Macquarie River was one of the main routes traditionally used by Aboriginal people to go back and forth between Lake Illawarra and the Southern Highlands, Kangloon, Robertson and Moss Vale areas. The other main east-west routes across the Illawarra Escarpment were at Bong Bong west of Dapto and at Bulli Pass. They are the same routes used by Europeans to enter the Illawarra with the help of Aboriginal guides. ('Early Contact Map' in DECC 2005 A History of...).

Calderwood Project area lies between two arms of the Macquarie Rivulet, with the northerly arm named Marshall Mount Creek and between them is the escarpment foothill landform called Johnson's Spur. The Calderwood land includes parts of the spur and is west of where the Macquarie Rivulet and Marshall Mount Creek join up and Fraser's Creek converges before entering south Lake Illawarra together as the Macquarie Rivulet. Aboriginal camps existed all along the riverbanks and the Lake.

We would like to know when and why the Macquarie River came to be called a Rivulet. Flooding of the river can be quite extreme and in recent years has posed some problems for road users and residents of the area.

Aboriginal Place Names, Words

Some recorded Aboriginal names for creeks and areas close to Calderwood include: (Organ (1990) page references)

The most northern branch of the Macquarie Rivulet, known as Johnston's Creek - *Yarra Yarra* (p462)

Yarrania, *Yarra Yarra*, Johnston's Creek, a devil. (Recorded 1910-30 by Francis McCaffrey, Appendix 3 of Organ (1990) p486)

Marshall Mount – *Neurandurley* (p463) or *Murrindarry* (p390)

Marshall Mount Creek – *Tongarra* (p465)

Terry's Meadows – *Thampa* or *Tupma* (p463) or *Tupnea* (p483, 486)

Yellow Rock – *Goongar* – a big lizard (p486)

Tullumbar- King of Tongarra (p488)

Tongarra – means “tame man killed the wild man” (p 391) Queen Rosie

Coomonderry - a small range or spur (p487)

Your report mentions the waterfall below Macquarie Pass. This very special place has great Aboriginal significance and several members of our group are familiar with this waterfall and have visited it.

I recently came across a possible local Aboriginal name for it. The Reverend W.B. Clarke was an Anglican Minister and geologist who visited the Illawarra in 1840 and recorded the names of many Aboriginal people, words and place names in his diaries. He gives an Aboriginal name for a waterfall near Macquarie Pass as ‘*Segingouera*’. (p254). (The name is not in current use and there may be good reason for that which local Aboriginal language holders could explain.)

European Historical records

While there can be doubts about the reliability of non-Aboriginal accounts of Aboriginal people and culture, we suggest these other historical references be considered because Aboriginal history needs to be written back into Australian history as much as possible.

Some European reports mention particular Aboriginal people by name or tribal group and where a translation between Aboriginal language speakers is required. Details like these can give insights to the Aboriginal society of the region and the Aboriginal people occupying or travelling through the Calderwood-Macquarie River valley area.

Throsby’s Travel Routes

Particularly relevant to the Calderwood area is Dr Charles Throsby, who wrote extensive notes and descriptions of the country he passed through as well as his many encounters with Aboriginal people along the way.

In 1818, Dr Charles Throsby, the surveyor James Meehan and a party which included the Aborigines Bundle and Broughton, attempted to travel overland from Liverpool to Jervis Bay. In his ‘*Journal of a Tour of Discovery to Jervis Bay, 3 March to 13 April, 1818*’ Throsby gives a graphic description of his descent down Macquarie Pass and the great difficulty they had in crossing the Macquarie River.

(Extracts in M. Organ, *Illawarra and South Coast Aborigines 1770-1850*, Aboriginal Education Unit, Wollongong University, 1990, pages 95-96)

Throsby names two of his local Aboriginal guides as Timelong and Munnaa, who met up with him near Sutton Forest and accompanied him to the coast. Throsby says: *"They are 2 Natives whom I have seen at Five Islands. Munnaa is one of two strangers whom myself and Colonel Johnston had met at the River Macquarie, Five Islands, the first time the Colonel was there, and which was the first time he had seen a white man. On our meeting them they had many jagged spears etc but on my telling them (through Bundell) that the Governor required the Natives not to carry spears when with white people, they very readily consented to leave them, in fact threw them away and assured me that the carts and other things we left would be safe."*

After descending the Macquarie Pass on horseback and with rain setting in, the party camps beside the river for the night. In the morning he goes out *"to look at the creek towards its source, found it formed by very inconsiderable streams and think it does not extend any great distance, the water falling to the right, it is probable that by keeping more to the eastwards, the pass we came down may be avoided."*

(Q: Is Dr Throsby steering future travelers to use Johnson's Spur, Merrigong, rather than the Macquarie Pass? If so, why did the Aboriginal guides lead the party down a more difficult part of the pass rather than use the easier local Aboriginal track that comes down Johnson's Spur?)

Throsby also writes of an Aboriginal informant who tells him about the source of the Macquarie River : *"An old Native with a wife and eight children came to us at this place, tells me this river rises out of a piece of forest grounds close at the back of Five Islands Mountain which ground I sent Joseph Wild to examine about 12 months since. He informs me he met the old Man and Family there and that the land from whence this river takes its sources is a very large piece of excellent forest and that the sources of it and those of the Macquarie River at Five Islands is only separated by the range of the Macquarie Mountains."*

(We note the difference here with your report that says the headwaters of Macquarie Rivulet are somewhere near Robertson.)

Another view of local Aboriginal identities comes a few years later from Dr Throsby's nephew, Charles Throsby Smith, who settled in the Wollongong district in 1823. Throsby-Smith's memoir includes mention

of “‘Old Bundle’, a chief who claimed Wollongong as his particular domain, and ‘Old Timberry’, who ruled another portion of the tribe; but these chiefs and their adherents were by no means confined to particular localities. Timberry, however, claimed Berkeley. They roamed through the district. At this time they were at war with the Kiama and Shoalhaven blacks.” (Throsby-Smith’s 1863 reminiscences published in *Illawarra Mercury*, 3 October 1876. Extract in Organ (1990) page 133).

Camps

You mention Henry Osborne, who settled at Marshall Mount in 1831. He reported skirmishes breaking out between Aboriginal groups along the banks of Marshall Mount Creek. He also says there were a lot of Aborigines around and “every Christmas it was their custom to camp opposite to where the school now stands”. (Organ (1990) page 171).

We understand the area near the old school site is recognized by DECC as a post-European Aboriginal camp site, one of three such sites in the Calderwood Project study area. We think it was a traditional Aboriginal camp site for large seasonal gatherings.

Reverend James Backhouse, a Quaker Minister who visited the Illawarra, Shoalhaven and Bong Bong areas in 1836. He stayed with Henry Osbourne at Marshall Mount and noticed the local Aboriginal people : “the females had their hair ornamented with kangaroo’s teeth twisted into the ends of the ringlets with some sort of wax... all the men had the cartilage of the nose perforated, through which they wear a bone..” (Organ p205 and 208)

Tullimbar

In 1898 Mr John Fraser, J.P. of Bushgrove, Tullimbar related the story of “**King Tullimbar**”. (Organ (1990) page 465-466). Fraser says:

“Since the early days of settlement in the Macquarie Valley (now having the town of Albion Park as a centre) an Aboriginal named “Tullimbar” or “Tullumbar” was the recognised king of the Aboriginal tribe of the locality “Tongarra”. The tribe had their main centre in Tullimbarr, now known as Tongarra, in the upper portion of the Macquarie Valley. The main stream through the farm known as Tongarra and another part of the homestead was known as Tongarra by the Aborigines.”

Fraser also says: *“The favourite camping place of the “Blacks” during the early settlement of the Macquarie Valley by Europeans were on the banks of the river, near what subsequently became the position of the Main Road, the slope of the hill west of the “churches” of modern days, and on the site of Mr John Marer’s property, and on the north of the river so named by that gentleman “Bushgrove”.*

Burials

Fraser’s notice of Tullimbar may have been written in response to the death of the Aboriginal chief. Your report says the Calderwood area has “some association with burial practice”. More specifically, you could mention that Tullimbar was given a traditional burial on the Macquarie Rivulet at Albion Park in the late nineteenth century. That funeral was witnessed by E.H. Weston who recorded aspects of the Illawarra burial traditions that were used. (DECC “A History...page 34)

Aborigines and Farming

The Macquarie Valley, Calderwood, Albion Park and Terry’s Meadows provided prime grazing and fertile farmlands for the Illawarra region and the Calderwood Project land is currently still zoned as Agricultural land. Many Aboriginal families worked on farms in the Illawarra. Elders’ interviews and oral history projects on the south coast have shown that seasonal work on farms continued to be an extremely important source of income for many Aboriginal families up until very recently.


There is no additional cultural knowledge from the experience of WNDAC members that we wish to include in the report. We agree with the recommendations of the draft report and thank you for the opportunity to comment on it.

Sincerely, Karen Gough


References:

Organ, M. *Illawarra and South Coast Aborigines 1770-1850*, Aboriginal Education Unit, Univeristy of Wollongong, 1990.
DECC, *A History of Aboriginal People of the Illawarra 1770 to 1970*, 2005 and
DECC, *Murni Dhungang Jirrar, Living in the Illawarra*, 2005.
Edwards, W. H. (editor) *Traditional Aboriginal Society*, Macmillan, Australia, 1987.

APPENDIX B.5 NNTT SEARCH RESULTS



National
Native Title
Tribunal



6 October 2009

Krissy Moore
Archaeologist
Austral Archaeology Pty Ltd
Shop 1, 92-96 Percival Road
Stanmore NSW 2048

**New South Wales and
Australian Capital Territory
Registry**
Level 25, 25 Bligh Street
Sydney NSW 2000
GPO Box 9973
Sydney NSW 2000
Telephone (02) 9235 6300
Facsimile (02) 9233 5613

Our Reference: 3066/09/kc
Your Reference: 9030 Calderwood

Dear Ms Moore

Native Title Search Results of Wollongong & Shoalhaven Local Government Areas

Thank you for your letter of 28 September 2009.

My search on 6 October 2009 found:


Wollongong LGA

Register Type	NNTT Reference Numbers
National Native Title Register	NN05/11
Register of Native Title Claims	NC98/23
Unregistered Claimant applications	Nil
Register of Indigenous Land Use Agreements	Nil

Shoalhaven LGA

Register Type	NNTT Reference Numbers
National Native Title Register	NN05/15 & NN04/11
Register of Native Title Claims	Nil
Unregistered Claimant applications	Nil
Register of Indigenous Land Use Agreements	Nil

I have included extracts from the National Native Title Register and Register of Native Title Claims, mapping of the application areas and a NNTT Registers fact sheet to help you understand the search result.



Resolution of native title issues over land and waters.

Freecall 1800 640 501
www.nntt.gov.au

Please note that there may be a delay between a native title determination application being lodged in the Federal Court and its transfer to the Tribunal. As a result, some native title determination applications recently filed in the Federal Court may not appear on the Tribunal's databases.

If you need more information please call me on 1800 640 501.

Yours sincerely



Kashana Cohen-McMeekin

Trainee

Telephone (02) 9235 6371

Facsimile (02) 9235 5613

Email kashanac@nswtt.gov.au

Encl



Searching the NNTT Registers in New South Wales

Search service

On request the National Native Title Tribunal will search its public registers for you. A search may assist you in finding out whether any native title applications (claims), determinations or agreements exist over a particular area of land or water.

In New South Wales native title cannot exist on privately owned land including family homes or farms.

What information can a search provide?

A search can confirm whether any applications, agreements or determinations are registered in a local government area. Relevant information, including register extracts and application summaries, will be provided.

In NSW because we cannot search the registers in relation to individual parcels of land we search by local government area.

Most native title applications do not identify each parcel of land claimed. They have an external boundary and then identify the areas not claimed within the boundary by reference to types of land tenure e.g., freehold, agricultural leasehold, public works.

What if the search shows no current applications?

If there is no application covering the local government area this only indicates that at the time of the search either the Federal Court had not received any claims in relation to the local government area or the Tribunal had not yet been notified of any new native title claims.

It does not mean that native title does not exist in the area.

Native title may exist over an area of land or waters whether or not a claim for native title has been made.

Where the information is found

The information you are seeking is held in three registers and on an applications database.

National Native Title Register

The National Native Title Register contains determinations of native title by the High Court, Federal Court and other courts.

Register of Native Title Claims

The Register of Native Title Claims contains applications for native title that have passed a registration test.

Registered claims attract rights, including the right to negotiate about some types of proposed developments.

Register of Indigenous Land Use Agreements

The Register of Indigenous Land Use Agreements contains agreements made with people who hold or assert native title in an area.

The register identifies development activities that have been agreed by the parties.

Application summaries

An application summary contains a description of the location, content and status of a native title claim.

This information may be different to the information on the Register of Native Title Claims, e.g., because an amendment has not yet been tested.

How do you request a search?

A search request form is available on the Tribunal's web site at:
<http://www.nntt.gov.au/registers/search.html>
This form says how much searches cost.
Mail, fax or email your request to the Tribunal's Sydney registry, identifying the local government area/s you want searched.

Email: SydneySearch@nntt.gov.au
Fax: (02) 9233 5613
Address: GPO Box 9973, Sydney NSW 2001
Phone: (02) 9235 6300

The detailed NNTT Search Results are not suitable for public display and have therefore been removed from this report.

APPENDIX B.6 REGISTRAR OF ABORIGINAL OWNERS RESPONSE



11-13 Mansfield Street
Glebe NSW 2037
PO Box 112, Glebe NSW 2037
T: 02 9562 6321 F: 02 9562 6350

Ms Krissy Moore
Archaeologist, Austral Archaeology Pty Ltd
Shop 1, 92 Percival Rd,
Stanmore NSW 2048

22 October 2009

Dear Ms Moore

Re: Request - Search for Registered Aboriginal Owners

I refer to your letter dated 13 October 2009 regarding Aboriginal archaeological and cultural heritage assessment in the Illawarra area.

I have searched the Register of Aboriginal Owners and the subject land does not appear to have Registered Aboriginal Owners pursuant to Division 3 of the *Aboriginal Land Rights Act 1983* (NSW).

I trust that you are in contact with the Illawarra Local Aboriginal Land Council. The land council may be able to assist you with information and contact details for other interested groups.

Yours sincerely

Courtney Field
Assistant Research Officer
Office of the Registrar, *Aboriginal Land Rights Act* (1983)

APPENDIX B.7 CONSULTATION LOG

Date	Method	From	To	Notes
15/10/2009	Post	WNDAC	Austral	Registration of interest
2/11/2009	Email	ILALC	Austral	Registration of interest
3/11/09	Phone	Austral	ILALC	Called to discuss ILALC interest in project. Left a message.
4/11/09	Phone	Austral	WNDAC, ILALC	Called to discuss interest in project. Left message as bad time to talk in both cases.
13/11/2009	Phone	Austral	WNDAC, ILALC	Called to discuss interest in project. Chat with WNDAC about availability of stakeholders – was told that the first half of January is bad as office closes and ILALC probably the same. Called ILALC but busy with another call, will call back on Monday.
16/11/2009	Phone	Austral	ILALC	CEO in meeting. Will call back.
16/11/2009	Phone	ILALC	Austral	CEO called asking for a map of the area to clarify location. Their office closure will be 22 nd December to 4 th January. Fieldwork is OK for December and January. She looks forward to receiving our methodology.
16/11/2009	Phone	Austral	WNDAC	No answer.
17/11/2009	Phone	Austral	WNDAC	No answer.
20/11/2009	Email	Austral	WNDAC ILALC	Emailed copy of infopack to groups. Spoke to WNDAC re: infopack and left message for ILALC.
23/11/2009	Phone	Austral	WNDAC ILALC	Called re: receipt of infopack. WNDAC: out of office, ILALC: left message.
24/11/2009	Phone	Austral	ILALC	CEO no chance to look at yet. Will provide email response tomorrow. Area is significant.
24/11/2009	Phone	Austral	WNDAC	No chance to look at yet. Having meeting to discuss infopack tomorrow. Will respond by the end of the week.
26/11/2009	Email	ILALC	Austral	ILALC sent response to methodology and schedule of rates. All OK.
30/11/2009	Phone	Austral	WNDAC	WNDAC was happy with the infopack and will send us an email. Also, WNDAC does not have the insurance to cover people for site work and so will not be able to participate in the field assessment. WNDAC will of course still be involved in the review of literature etc.
30/11/2009	Phone	Austral	ILALC	ILALC is OK for fieldwork on the 7 th – 9 th and 17 th – 18 th December. I will email the CEO re: these dates and she will organise 2 field reps. I said there will be a small delay on getting fieldwork infopack approved. All OK.
7 th – 9 th / 12/2009	In person	Austral	ILALC	Field Assessment with Aaron Broad and John Pagett. Phone calls with S. Robinson.
12/1/2010	Email	Austral	ILALC	Confirming fieldwork
12/1/2010	Phone/Email	Austral	ILALC	Confirming fieldwork – left message with receptionist as CEO out of office.
12/1/2010	Email/phone	ILALC	Austral	Phone conversation, then email confirming field reps for 13 th Jan.
15/1/2010	Email/phone	ILALC	Austral	Phone conversation, then email confirming field reps for 18 th Jan.
13 th – 15 th / 1/2010	In person	Austral	ILALC	Field Assessment with Neville Maher and Roy Stewart. Phone calls with S. Robinson.
18 th – 20 th /	In person	Austral	ILALC	Field Assessment with Margaret Mongta

Date	Method	From	To	Notes
1/2010				and Jay Marsden. Phone calls with S. Robinson.
22/1/2010	Email	Austral	ILALC	Email following up on phone call from day before. Sent copy of site recordings to inform ILALC report. Sent copy of cultural information obtained through consultation for ILALC's review. Sent correction to timesheets for ILALC Site Officers.
25/1/2010	Email	Austral	ILALC	Send invoicing details to ILALC. Also information for Jay Marsden re: resources on DECCW website.
25/1/2010	Email	ILALC	Austral	Thankyou email
25/1/2010	Email	Austral	ILALC	You're welcome, also chasing up OK for cultural information obtained during consultation.
9/2/2010	Email	Austral	ILALC, WNDAC	Sent review copy of report to ILALC and WNDAC by email. Mentioned deadline of 2 nd March 2010. Mentioned specific points which we are seeking comment on.
16/2/2010	Email	ILALC	Austral	Received email with attached letter of comments on report.
16/2/2010	Phone	Austral	ILALC	Called ILALC to clarify comments. Left message.
16/2/2010	Phone	Austral	WNDAC	Called WNDAC to check how they felt about the report. Karen Gough said they will have a meeting soon and get a response to me by next week. She asked for site numbers for stone axe and grinding pestle mentioned in report, noted that WNDAC might associate the pestle with women's work. I provided more information about site context etc.
17/2/2010	Phone	ILALC	Austral	S. Robinson returned call. Regarding the public display of info, and even the inclusion of cultural information in a confidential appendix: the LALC feels that it's OK for Austral to have this information on file, but they feel it should not be included in the report (even in a confidential appendix) because no one can guarantee who will have access to the report once it has been filed in the DoP or DECCW archives. However the cultural information provided in the text is OK.
19/2/2010	Email	WNDAC	Austral	Received email with attached letter of comment.
19/2/2010	Email	Austral	WNDAC	Sent email thanking for response.
26/2/2010	Email	Austral	WNDAC	Sent email addressing comments and including extra photos of certain artefacts WNDAC has interest in.

APPENDIX C SITE TYPE DEFINITIONS (NPWS 1997)

Appendix 3 Aboriginal site types

An Aboriginal site is any place which has the physical remains of prehistoric occupation, or is of contemporary significance to the Aboriginal community. Sites include:

1. Occupation sites (shell middens, rockshelters and open camp sites)
2. Aboriginal Reserves and Missions
3. Rock paintings
4. Rock engravings
5. Grinding grooves
6. Quarries
7. Ceremonial grounds
8. Stone arrangements
9. Carved and scarred trees
10. Burials
11. Natural sacred sites

1. Occupation Sites

Evidence of human occupation, which includes food remains, stone tools, baked clay, fire-blackened and fire-cracked stones and charcoal, is found in a range of sites known collectively as occupation sites.

- *Shell middens.* These sites are found on the coastline and along the edges of rivers and lakes. It is a deposit composed of the remains of edible shellfish and also usually contains fish and animal bones, stone tools and campfire charcoal.
- *Rock shelters with archaeological deposit.* In rock outcrops such as sandstone and granite, overhangs sometimes form creating useable shelters. Sediments from fires, roof fall, discarded stone tools and food remains form a deposit protected within the shelter and this deposit can be excavated by archaeologists to study patterns of Aboriginal life.
- *Open camp sites.* These sites are mostly surface and associated sub-surface scatters of stone artefacts, sometimes with fireplaces. They exist throughout the landscape and are the most common site type in rural areas. While found in all environmental locations larger and denser sites tend to be found on river banks and lower slopes facing water courses, as well as ridgelines and other areas that offer movement routes. The study of open sites can assist in understanding patterns of Aboriginal landuse.

2. Aboriginal Reserves and Missions

These places are very important to Aboriginal people today. Although Aboriginal people were often moved to reserves by force and were restricted by harsh regulations, the reserves became home to many people, where they and their families were born, lived and died. Historic

cemeteries at many reserves are still cared for by the local Aboriginal community.

3. Rock Paintings

Aboriginal paintings are found on the ceilings and walls of rockshelters which occur wherever suitable rock surfaces and outcrops exist. Figures include humans, kangaroos, emus, echidnas, grid patterns, animal tracks, boomerangs, axes, hand stencils and other motifs. Paintings are made with white, red, yellow and black pigments. The motifs may be drawn, painted or stencilled. and charcoal drawings are common as well.

4. Rock Engravings

These occur usually where there is a suitable exposure of fairly flat, soft rock or in rock overhangs. The outlines of motifs were made by hitting the rock surface with a sharp stone to make small holes or pits. Sometimes the pits were jointed to form a groove, by rubbing with a stone. People, animal shapes and tracks are common as well as non-figurative designs such as circles.

5. Grinding Grooves

Grooves are located on flat rock exposures close to a stream or rock hole. They vary in size but are generally long (about 30-40cm in length) and elliptical in shape. Stone axes were ground into the softer stone allowing a working edge to be created or sharpened. Deeper grooves may have been used to work spears or other thin implements.

6. Quarries

Quarry sites occur wherever there are outcrops of siliceous or igneous rock. Stone material was used in creating stone tools which in turn were used to work wood and provide people with tools to assist in hunting and gathering activities. Siliceous rock is easily flaked and made useful cutting and scraping tools whereas igneous rock was preferred for edge-ground tools, particularly axes.

7. Ceremonial grounds

These sites were used for initiation ceremonies, marriages, tribal meetings and other important functions and are of great significance to Aboriginal people. Bora rings, which are one or more raised earth rings, were used for male initiations.

8. Stone arrangements

These range from simple stone mounds to complex circles and pathways. Arrangements are found throughout inland New South Wales as well as the coast, where fish traps were sometimes constructed.

9. Carved and scarred trees

Tree bark was used for constructing canoes, shelters, coolamons and shields. Distinctive scars are left from bark removal and can usually be differentiated from natural scars. Carved trees are more distinctive exhibiting patterns etched into the wood of the tree. They can occur throughout the state although clearing and forestry practises have greatly reduced numbers.

10. Burials


Aborigines feel equally as respectful about prehistoric burials as modern cemeteries. As Aborigines have lived in Australia for over 50 000 years burials are seen as part of a continuing culture and tradition as well as offering valuable archaeological information. The dead were sometimes cremated, sometimes placed in trees or rock ledges and sometimes buried. Burials exist throughout New South Wales and can be accidentally uncovered in construction work or become exposed through erosion. It is important that if a skeleton is found it be reported to the police, to a representative of the National Parks and Wildlife Service and to the relevant Aboriginal community group.




11. Natural sacred sites




Many features of the landscape, such as mountains, rocks, waterholes etc., are regarded as sacred sites by Aborigines. They are places associated with Dreamtime ancestors and usually can only be identified by Aboriginal people. They retain a high significance to Aborigines.




APPENDIX D FIELD RECORDINGS AND SITE CARDS




APPENDIX D.1 SURVEY UNIT RECORDINGS




Survey Unit: Survey Unit 1	
Description: The land between the northern boundary of the Calderwood Project and the north bank of Marshall Mount Creek.	
Lot/DP Information: The Survey Unit contains parts of Lot 1 DP 1044038 (440 North Macquarie Road), Lot 2 DP 158988 (Marshall Mount Road), Lot 22 DP 809156 (320 Calderwood Road), Lot 2 DP 2534 (448 Calderwood Road) and Lot 2 DP 608238 (317 Calderwood Road).	
Survey unit area: 117.437 ha	<p><i>D.1.1: View north east over Survey Unit 1. Photo © Austral Archaeology Pty Ltd 20/1/2010.</i></p>
Hydrology: Marshall Mount Creek (3+ order) and its lower order tributaries are present within this survey unit (see Figure 3.2).	Landform Unit: <ul style="list-style-type: none"> • Creek bank • Creek flat • Gently rising slopes
Current land use: Horse agistment, paddock, training tracks and rural residential. Soil type: Dark brown loamy soil.	Vegetation/ground cover: Thick low pasture grass GSV: Zero except in areas of exposure
Disturbance type: <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	Degree of disturbance: <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
Aboriginal sites? CP-S-15, CP-IF-17 & CP-IF-18	Natural resources: River resources
Other Comments/Descriptive notes: Other than the three sites (CP-S-15, CP-IF-17 & CP-IF-18), no areas of archaeological potential or cultural sensitivity were observed within this survey unit.	




Survey Unit: Survey Unit 2	 <p><i>D.1.2: View north over Survey Unit 2 showing zero ground surface visibility. Photo © Austral Archaeology Pty Ltd 9/12/2009.</i></p>
Description: The land between the south bank of Marshall Mount Creek and Calderwood Road.	
Lot/DP Information: This Survey Unit contains parts of Lot 112 DP 851153 (258 Calderwood Road), Lot 10 DP 619547 (368 Calderwood Road), Lot 22 DP 809156 (320 Calderwood Road), Lot 2 DP 2534 (317 Calderwood Road), Lot 2 DP 608238 (317 Calderwood Road) and Lot 21 DP 809156 (342 Calderwood Road).	
Survey unit area: 103.696 ha	
Hydrology: Marshall Mount Creek (3+ order) and its lower order tributaries are present. The tributaries run down slope from the south to meet the Creek (see Figure 3.2).	Landform Unit: <ul style="list-style-type: none"> • Creek bank • Creek flat • Gently rising slopes
Current land use: Horse agistment, rural residential, paddock. Soil type: Dark brown loamy soil.	Vegetation/ground cover: Thick short paddock grass and areas of patchy scrub with grassy overgrowth. GSV: Very poor to fair.
Disturbance type: <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	Degree of disturbance: <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
Aboriginal sites? CP-S 4	Natural resources: Cabbage tree palm, river resources
 <p><i>D.1.3: View west over dam exposure in Survey Unit 2. Photo © Austral Archaeology Pty Ltd 9/12/2009.</i></p>	 <p><i>D.1.4: View west looking to opposite bank of Marshall Mount Creek in Survey Unit 2 showing eroded creek terrace exposure. Photo © Austral Archaeology Pty Ltd 9/12/2009.</i></p>
<p>Other Comments/Descriptive notes: No areas of archaeological potential or cultural sensitivity other than the site CP-S-4 were observed within this survey unit.</p> <p>342 Calderwood Road (Lot 21 DP 809156) could not be accessed during the survey. Although very small, the property contains a large dam exposure and is located on a landform where other artefacts have been found in such exposures. It was not possible to adequately observe the dam from the fence line and thus it cannot be said that there is no archaeological material present in the property. Therefore, potential remains for archaeological sites to be present within this area. If present, the site/s would most likely take the form of isolated finds or open artefact scatters within the disturbed context of the dam walls and exposure.</p>	




Survey Unit: Survey Unit 3	 <p><i>D.1.5: View northwest over paddock in Lot 1 DP 608238 in Survey Unit 3, showing zero GSV and thick low pasture grass. Photo © Austral Archaeology Pty Ltd 19/01/2010.</i></p>
Description: The land between the south bank of Marshall Mount Creek and Calderwood Road.	
Lot/DP Information: The Survey Unit contains parts of Lot 5 DP 259137 (North Macquarie Road), Lot 4 DP 259137 (299 North Macquarie Road), Lot 1 DP 998349 (379 Calderwood Road), Lot 2 DP 608238 (317 Calderwood Road) and Lot 1 DP 608238 (347 Calderwood Road).	
Survey unit area: 130.856 ha	
Hydrology: Lower order tributaries of Marshall Mount Creek run down slope to the north from Johnstons Spur towards Marshall Mount Creek, crossing through this Survey Unit (see Figure 3.2).	Landform Unit: <ul style="list-style-type: none"> • Creek flat • Gently rising slopes • Hill slopes
Current land use: Paddock, rural/residential, horse agistment, cemetery Soil type: Dark brown loamy soil	Vegetation/ground cover: Thick low pasture grass, occasional stands of trees along drainage lines GSV: Very poor to poor
Disturbance type: <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	Degree of disturbance: <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
Aboriginal sites? CP-S-06/CP-PAD-02, CP-S-07, CP-IF-13, CP-S-08, CP-IF-14, CP-IF-15, CP-IF-16, CP-S-11/CP-PAD-04, CP-IS-12, CP-S-13	Natural resources: River resources
 <p><i>D.1.6: View north over dam showing minimal exposure, in Lot 1 DP 608238 in Survey Unit 3 Photo © Austral Archaeology Pty Ltd 19/01/2010.</i></p>	 <p><i>D.1.7: View south showing exposure along access track and drinking troughs in Survey Unit 3 Photo © Austral Archaeology Pty Ltd 19/01/2010.</i></p>
Other Comments/Descriptive notes: The Survey Unit contains the parts of the following lots which lie between Calderwood Road and Johnstons Spur: Other than the recorded sites and areas of potential archaeological deposit (CP-S-06/CP-PAD-02, CP-S-07, CP-IF-13, CP-S-08, CP-IF-14, CP-IF-15, CP-IF-16, CP-S-11/CP-PAD-04, CP-IS-12 & CP-S-13) no areas of archaeological potential or cultural sensitivity were highlighted.	

Survey Unit: Survey Unit 4	
Description: Johnstons Spur.	
Lot/DP Information: The Survey Unit contains parts of Lot 4 DP 259137 (299 North Macquarie Road), Lot 1 DP 259137 (129 North Macquarie Road), Lot 2 DP 259137 (159 North Macquarie Road), Lot 1 DP 998349 (379 Calderwood Road), Lot 3 DP 259137 (221 North Macquarie Road) and Lot 1 DP 608238 (347 Calderwood Road).	
Survey unit area: 92.589 ha	<i>D.1.8: View southeast showing cleared section of Survey Unit 4 within Lot 4 DP 259137. Photo © Austral Archaeology Pty Ltd 14/01/2010.</i>
Hydrology: Lower order tributaries of Marshall Mount Creek (to the north) and the Macquarie Rivulet (to the south) originate along the high points of the Spur and run down slope to join these 3+ order streams (see Figure 3.2).	Landform Unit: <ul style="list-style-type: none">• Slopes• Ridge crest
Current land use: Cattle paddock, un-used land Soil type: Dark brown loamy soils on lower slopes, red clay soil in dam exposure, skeletal soils in the few areas of exposure.	Vegetation/ground cover: Thick low pasture grass, densely overgrown lantana, blackberries, medium to large native trees GSV: Very poor except in areas of exposure
Disturbance type: <ul style="list-style-type: none">• Clearance & track maintenance• Animal traffic• Fluvial disturbance	Degree of disturbance: <ul style="list-style-type: none">• Low to moderate• Low to moderate• Moderate
Aboriginal sites? CP-IF-10, CP-IF-11, CP-PAD-01 & CP-S-09 / CP-PAD-03	Natural resources: Woodland resources, echidna
	
<i>D.1.9: View north to crest of Johnstons Spur in Survey Unit 4, from within Lot 1 DP 259137. Photo © Austral Archaeology Pty Ltd 14/01/2010.</i>	<i>D.1.10: View north west towards Johnstons Spur, from within Lot 1 DP 259137 in Survey Unit 4. Photo © Austral Archaeology Pty Ltd 14/01/2010.</i>
Other Comments/Descriptive notes: Extremely overgrown areas of lantana and other regrowth vegetation prevented complete coverage of the crest of Johnstons Spur as it passed through the properties listed above. Best attempts were made to access clear areas on the Spur wherever possible. Access tracks into the overgrown areas were followed until their end. Ground surface visibility on these tracks was generally very poor. The different levels of vegetation clearance on the properties which covered the crest of the Spur meant that different levels of access were achieved. Wherever possible, areas which were inaccessible from within a particular property were observed from the fence line shared with a more accessible property. This approach led to as much of the Spur being observed as possible. This approach was regularly discussed with ILALC Site Officers and they were satisfied with the methodology. It was agreed that zero ground surface visibility made survey difficult. ILALC Site Officer Aaron Broad was not present on the days when the Spur was surveyed. However during his site visit (covering Survey Units 6, 7, 8, and parts of Survey Unit 2) he observed the Spur from a distance and commented that it would have been a meeting and trading place, called <i>merrigong</i> (meaning “barter”).	

Survey Unit: Survey Unit 5	
Description: Land south of Johnstons Spur to North Macquarie Road.	
Lot/DP Information: The Survey Unit contains parts of Lot 1 DP 259137 (129 North Macquarie Road), Lot 2 DP 259137 (159 North Macquarie Road) and Lot 3 DP 259137 (221 North Macquarie Road).	
Survey unit area: 91.507 ha	<p><i>D.1.11: View south towards Macquarie Rivulet from Lot 1 DP 259137, within Survey Unit 5. Photo © Austral Archaeology Pty Ltd 13/01/2010</i></p>
Hydrology: The lower order tributaries of the Macquarie Rivulet (3+ order), to the south, either originate in or pass through this Survey Unit on the way south from Johnstons Spur to join the Macquarie Rivulet (see Figure 3.2).	<p>Landform Unit:</p> <ul style="list-style-type: none"> • Undulating plain • Foot slopes • Mid slopes
Current land use: Paddock, rural/residential Soil type: Dark brown loamy soil	<p>Vegetation/ground cover: Thick low pasture grass, occasional isolated trees on slopes and thicker vegetation growing along drainage lines. GSV: Very poor</p>
<p>Disturbance type:</p> <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	<p>Degree of disturbance:</p> <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
Aboriginal sites? CP-IF-06, CP-IF-07, CP-S-05, CP-IF-12	Natural resources: None recorded
	
<p><i>D.1.12: View south west over dam in Lot 2 DP 259137, showing exposure on walls. Photo © Austral Archaeology Pty Ltd 13/01/2010.</i></p>	<p><i>D.1.13: View north looking upslope towards house in Lot 3 DP 259137, showing zero GSV. Photo © Austral Archaeology Pty Ltd 13/01/2010.</i></p>
<p>Other Comments/Descriptive notes: Other than the four recorded sites (CP-IF-06, CP-IF-07, CP-S-05 & CP-IF-12), no areas of archaeological or cultural sensitivity were noted within this Survey Unit.</p>	

Survey Unit: Survey Unit 6	
Description: Land to the east of North Macquarie Road, between North Macquarie Road and the Macquarie Rivulet.	
Lot/DP Information: Lot 6 DP 259137 (268 North Macquarie Road), Lot 4 DP 259137 (299 North Macquarie Road) and Lot 1 DP 194903 (240 – 400 Calderwood Road).	
Survey unit area: 88.916 ha	<p><i>D.1.14: View south over paddock in Survey Unit 6 showing small drainage line and zero GSV. Photo © Austral Archaeology Pty Ltd 8/12/2009.</i></p>
Hydrology: The Survey Unit is located on the north bank of the Macquarie Rivulet, at this point a 3+ order stream. Several lower order tributaries intersect the Survey Unit, flowing south to join the Rivulet.	Landform Unit: <ul style="list-style-type: none"> • Creek bank • Creek flat
Current land use: Paddock, rural residential Soil type: Dark brown loamy soil.	Vegetation/ground cover: Thick even paddock grass, heavily overgrown creek banks with native and exotic plants and vines. GSV: Very poor to fair.
Disturbance type: <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	Degree of disturbance: <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
Aboriginal sites? CP-S 2, CP-IF 3, CP-S 3, CP-IF 4, CP-IF 5	Natural resources: Raw ironstone, freshwater mussels; wild yams/native potatoes; paperbark trees; coral trees, eels
	
<p><i>D.1.15: View northwest across cattle pad exposure at entrance to dam in Survey Unit 6. Photo © Austral Archaeology Pty Ltd 8/12/2009.</i></p>	<p><i>D.1.16: View northwest over area of cattle pad and area of exposure in grassed paddock. Photo © Austral Archaeology Pty Ltd 8/12/2009.</i></p>
<p>Other Comments/Descriptive notes: A number of natural resources likely to have been used by past Aboriginal people were identified by ILALC Site Officers Aaron Broad and John Pagett in this area. These were freshwater mussels, wild yams/native potatoes, paperbark and coral trees and eels. ILALC Site Officers noted that although the coral tree is an introduced species it was used for carving by Aboriginal people in the area in recent history.</p> <p>Small amounts of non artefactual raw ironstone were also observed in one area of exposure.</p> <p>Other than the recorded sites (CP-S 2, CP-IF 3, CP-S 3, CP-IF 4 & CP-IF 5), no areas of archaeological or cultural sensitivity were recorded in the Survey Unit.</p>	

<p>Survey Unit: Survey Unit 7</p> <p>Description: Land south of North Macquarie Road and north of the Macquarie Rivulet (southwest corner of Calderwood Project area).</p> <p>Lot/DP Information: The Survey Unit contains Lot 42 DP 878122 (Tongarra Road) and Lot 8 DP 259137 (128 North Macquarie Road).</p> <p>Survey unit area: 47.934 ha</p>	 <p><i>D.1.17: Looking north along drainage line within Survey Unit, from south side of Macquarie Rivulet. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>
<p>Hydrology: The Survey Unit is intersected by the Macquarie Rivulet, at this point a 3+ order stream. Two lesser tributaries intersect the Survey Unit to join the Rivulet, from the north and south.</p>	<p>Landform Unit:</p> <ul style="list-style-type: none"> • Creek bank • Creek flat
<p>Current land use: Horse stud farm.</p> <p>Soil type: Dark brown loamy soil. Very sandy loam soil on creek banks. River pebbles/cobbles in sandy loam soil.</p>	<p>Vegetation/ground cover: Thick paddock grass, thick overgrown weeds, vines and trees along creek banks.</p> <p>GSV: Very poor to fair.</p>
<p>Disturbance type:</p> <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. 	<p>Degree of disturbance:</p> <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe
<p>Aboriginal sites? CP-IF 1 & CP-IF 2.</p>	<p>Natural resources: Raw stone material including river cobbles; petrified wood; freshwater mussels; wild yams/native potatoes; paperbark trees; coral trees, sandstone outcrops; eels</p>
 <p><i>D.1.18: Example of disturbance – material from Macquarie Rivulet bottom dredged up and used to build dam wall. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>	 <p><i>D.1.19: View north from access road into property, looking towards the south bank of the Macquarie Rivulet. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>
<p>Other Comments/Descriptive notes: The majority of the Survey Unit on both banks of the Rivulet is currently occupied by the Coral View horse stud farm (Lot 8 DP 259137). This includes a sealed access road, parking area, and a number of large buildings and sheds, as well as a series of fenced yards with corrugated iron and cement shade areas dotted through the paddocks. The south west corner of the survey unit is occupied by a rural residential lot with a single large dwelling, sealed causewayed driveway, internal fences and associated outbuildings and fences (Lot 42 DP 878122). ILALC Site Officers Aaron Broad and John Pagett identified a range of natural resources (see above) including sandstone outcrops with natural 'potholes' formed by erosion which could have been used by past Aboriginal people. Other than the sites CP-IF 1 and CP-IF 2, no areas of archaeological or cultural sensitivity were observed in this Survey Unit.</p>	

Survey Unit: Survey Unit 8	 <p><i>D.1.20: View southwest over Survey Unit 8 showing zero GSV and thick medium height pasture grass. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>
Description: Land south of Macquarie Rivulet and north of Illawarra Highway (southeast corner of Calderwood Project area).	
Lot/DP Information: The Survey Unit includes Lot 1 DP 996926 (2416 Illawarra Highway).	
Survey unit area: 38.091 ha	
Hydrology: The Survey Unit is located on the south bank of the Macquarie Rivulet. Yellow Rock Creek meets the Rivulet on the west border of the Survey Unit, and Hazelton Creek intersects the south-east corner of the Survey Unit. All are 3+ order streams (see Figure 3.2).	Landform Unit: <ul style="list-style-type: none"> • Creek bank • Creek flat
Current land use: Paddock, rural residential Soil type: Brown loamy soil	Vegetation/ground cover: Thick even paddock grass, heavily overgrown creek banks – native and introduced grasses and trees and lantana GSV: Very poor to fair.
Disturbance type: <ul style="list-style-type: none"> • Clearance • Animal traffic • Fluvial disturbance • House and road construction • Earthworks – dams etc. • Bridge construction 	Degree of disturbance: <ul style="list-style-type: none"> • Low to moderate • Low to moderate • Moderate • Severe • Severe • Severe
Aboriginal sites? CP-S 1	Natural resources: Raw stone material including river cobbles; petrified wood; freshwater mussels; wild yams/native potatoes; paperbark trees; coral trees, sandstone outcrops
	
<p><i>D.1.21: View north along track exposure showing imported road base (including imported lithics), showing zero GSV in paddock. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>	<p><i>D.1.22: View north showing disturbance to creek terrace, including dumping of building materials and cattle pad disturbance. ILALC Site Officers Aaron Broad and John Pagett in foreground. Photo © Austral Archaeology Pty Ltd 7/12/2009.</i></p>
Other Comments/Descriptive notes: Other than the site CP-S-1, no areas of archaeological or cultural sensitivity were observed in this Survey Unit.	

APPENDIX D.2 SITE RECORDINGS (LOCATION AND FEATURE INFORMATION REMOVED AS UNSUITABLE FOR PUBLIC DISPLAY)

Site Name	Site Type	Survey Unit	Size	Site Features	Number of artefacts	Landform Unit	Easting (GDA94 Zone 56)	Northing (GDA94 Zone 56)	Archaeological Potential
CP-IF-01	Isolated Find		<1 m ²		1	Mid-slope			Low
CP-IF-02	Isolated Find		<1 m ²		1	Upper slope			Low
CP-S-01	Open Artefact Scatter		5 m x 2 m		3	Creek terrace			Low
CP-S-02	Open Artefact Scatter		10 m x 20 m		6	Flat			Low
CP-IF-03	Isolated Find		<1 m ²		1	Mid-slope			Low
CP-S-03	Open Artefact Scatter		1 m ²		2	Lower slope			Low
CP-IF-04	Isolated Find		<1 m ²		1	Flat			Low
CP-IF-05	Isolated Find		<1 m ²		1	Flat			Low
CP-S-04	Open Artefact Scatter		5 m x 15 m		3	Flat			Low
CP-IF-06	Isolated Find		<1 m ²		1	Lower slope			Low
CP-IF-07	Isolated Find		<1 m ²		1	Lower slope			Low
CP-IF-08	Isolated Find		<1 m ²		1	Mid-slope			Low
CP-S-05	Open Artefact Scatter		1 m x 10 m		2	Upper slope			Low
CP-IF-09	Isolated Find		<1 m ²		1	Upper slope			Low
CP-IF-10	Isolated Find		<1 m ²		1	Upper slope			Low
CP-IF-11	Isolated Find		<1 m ²		1	Mid-slope/Valley			Low
CP-IF-12	Isolated Find		<1 m ²		1	Mid-slope/Valley			Low
CP-PAD-01	Potential Archaeological Deposit		170 m x 150 m		0	Upper slope			Low
CP-S-06 / CP-PAD-02	Open Artefact Scatter with associated Potential Archaeological Deposit		580 m x 280 m		53	Flat			Moderate - High
CP-S-07	Open Artefact Scatter		30 m x 10 m		3	Flat			Low

Site Name	Site Type	Survey Unit	Size	Site Features	Number of artefacts	Landform Unit	Easting (GDA94 Zone 56)	Northing (GDA94 Zone 56)	Archaeological Potential
CP-IF-13	Isolated Find		<1 m ²		1	Lower slope			Low
CP-S-08	Open Artefact Scatter		20 m x 5 m		4	Flat			Low
CP-IF-14	Isolated Find		<1 m ²		1	Mid-slope			Low
CP-IF-15	Isolated Find		<1 m ²		1	Lower slope			Low
CP-S-09 / CP-PAD-03	Open Artefact Scatter with associated Potential Archaeological Deposit		150 m x 120 m		11	Mid-slope			Moderate – High
CP-IF-16	Isolated Find		<1 m ²		1	Flat			Low
CP-S-10	Open Artefact Scatter		2 m ²		3	Flat			Low
CP-S-11 / CP-PAD-04	Open Artefact Scatter with associated Potential Archaeological Deposit		150 m x 60 m		11	Lower slope			Moderate
CP-S-12	Open Artefact Scatter		20 m x 10 m		5	Mid-slope			Low
CP-S-13	Open Artefact Scatter		20 m x 5 m		3	Lower slope/Flat			Low – Moderate
CP-S-14 / CP-PAD-5	Open Artefact Scatter with associated Potential Archaeological Deposit		400 x 200 m		>60	Flat/Creek terrace			High
CP-S-15	Open Artefact Scatter		2 m x 5 m		2	Mid-slope			Low
CP-IF-17	Isolated Find		<1 m ²		1	Lower slope			Low
CP-IF-18	Isolated Find		<1 m ²		1	Flat/Creek terrace			Low

