

Aboriginal Heritage Management Plan for Site # 45-5-2491

Assessment report

Summary

This report was commissioned by Landcom, who are progressing design concepts for mixed-use development at North Penrith (Figure 1) under Part3A of the *Environmental Planning and Assessment Act, 1979*. An Aboriginal archaeological site (AHIMS # 45-5-2491) has been recorded within this development area and previous recommendations have indicated that this should be set aside as a conservation area (Brayshaw 1993, AMBS 2001).

Objectives

The Brief for this report was as follows:

- ✎ Review updated development plans and DGRs for the North Penrith site;
 - ✎ Conduct an AHIMS register site search to confirm that no other Aboriginal sites occur within the development area;
 - ✎ Review previous archaeological studies within the study area and locally;
 - ✎ Consult with the Aboriginal community in accordance with the DECCW 2010 Aboriginal Cultural Heritage Consultation Guidelines;
 - ✎ Visit the registered AHIMS site with the Aboriginal stakeholders;
- Produce a comprehensive Aboriginal Heritage Impact Assessment incorporating comments by the Aboriginal community.

Methods and findings

The management strategy now proposed for site #45-5-2491 is predicated on a landscape-based philosophy. This approach advocates conserving archaeological landscapes based on landscape parameters and on the basis of their archaeological sensitivity (McDonald 1996).

- ✎ No land within the current study area has been identified as worthy of conservation;
- ✎ Most of the current study area has been assessed as having low-no archaeological potential. Further archaeological works will not be required in these areas;
- ✎ A small area of the subject land is assessed as having moderate potential archaeological deposit.

The area of land with moderate potential is too small to warrant archaeological investigation. This area coincides with the proposed area of retained vegetation. Based on ecological ground this area will be protected and hence those parts of site 45-5-2491 in the best condition will be preserved by the proposed development.

Aboriginal community Consultation

All registered and self-identified Aboriginal stakeholders were invited to inspect the registered site (Appendix 1). Representatives of Deerubbin LALC (Steve Randall), DTAC (John Riley), DCAC (Justine Copland), DACHA (Celestine Everingham), DLO (Gordon Workman) and Yarrawalk (Scott Franks) attended the site inspection on Wednesday 4th August 2010.

Conclusions

1. There are no Zone 1 (high potential) lands around registered site #45-5-2491, therefore no part of this site warrants conservation. Given the small size of the area identified with surface stone artefacts, our increased knowledge of open sites in the region over the last decade, and the lack of integrity of this landscape, this site is assessed as being a poor candidate for conservation effort;
2. The identified surface site has only a small area of associated Zone 2 (moderate potential) PAD. Given the small size of this identified sensitive area, this is not considered worthy of sub-surface archaeological investigation;
3. Because of the ecological value of the larger trees and the presence of identified artefacts, Landcom proposes to restrict the development of the site by the inclusion of an 88B instrument over the retained vegetation. This will preserve any archaeological deposit with moderate potential below the larger trees; and,
4. The remainder of the registered site is assessed as having low-no archaeological potential (Zone 3/4). This should be considered developable without archaeological constraint. There is no requirement for further archaeological investigation within these parts of the study area.

Recommendations

It is recommended that:

1. Landcom should consider the views of the Aboriginal community when determining the management regime and interpretation of site #45-5-2491;
2. In the future detailed planning stage proposed for the North Penrith Development area, Landcom should assess the Aboriginal heritage values associated with the two historic properties in this development area (Thornton Hall and setting and the Combewood outbuildings) as previous studies have not included an Indigenous assessment of these two properties.

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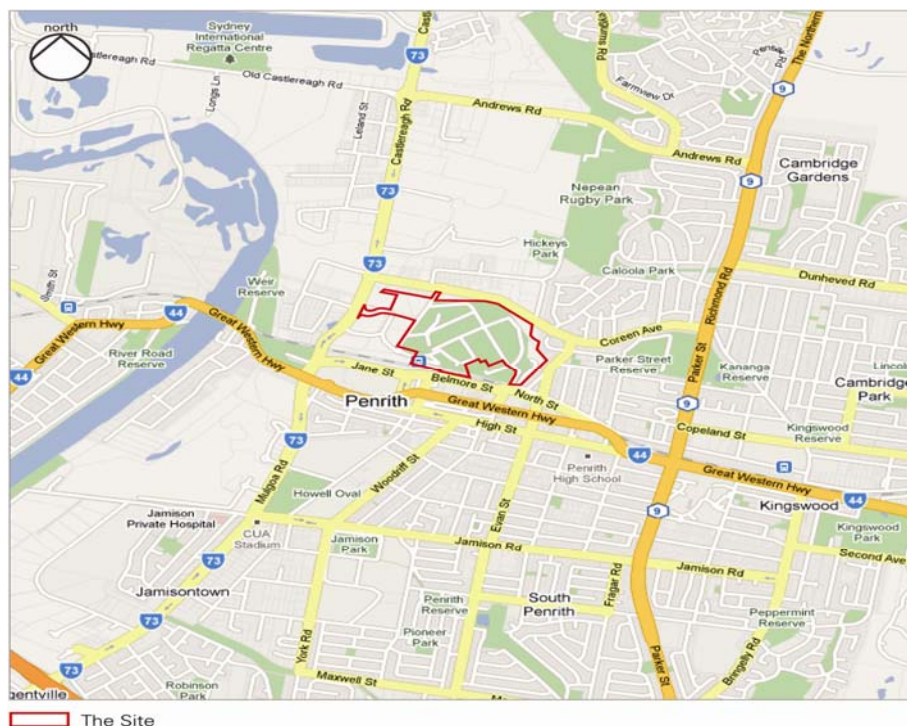
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1. Objectives of assessment

At a glance

An Aboriginal archaeological site (AHIMS# 45-5-2491) has been recorded within the North Penrith development area (Figure 1) and previous recommendations have indicated that this should be set aside as a conservation area (Brayshaw 1993, AMBS 2001). This report undertakes a current assessment of this site and defines appropriate management recommendations.

Figure 1: Local context of the North Penrith development site.



Landcom is preparing an environmental assessment for a Project Application at North Penrith to facilitate Infrastructure and Early Works, including site preparation, infrastructure and roads (Figure 2).

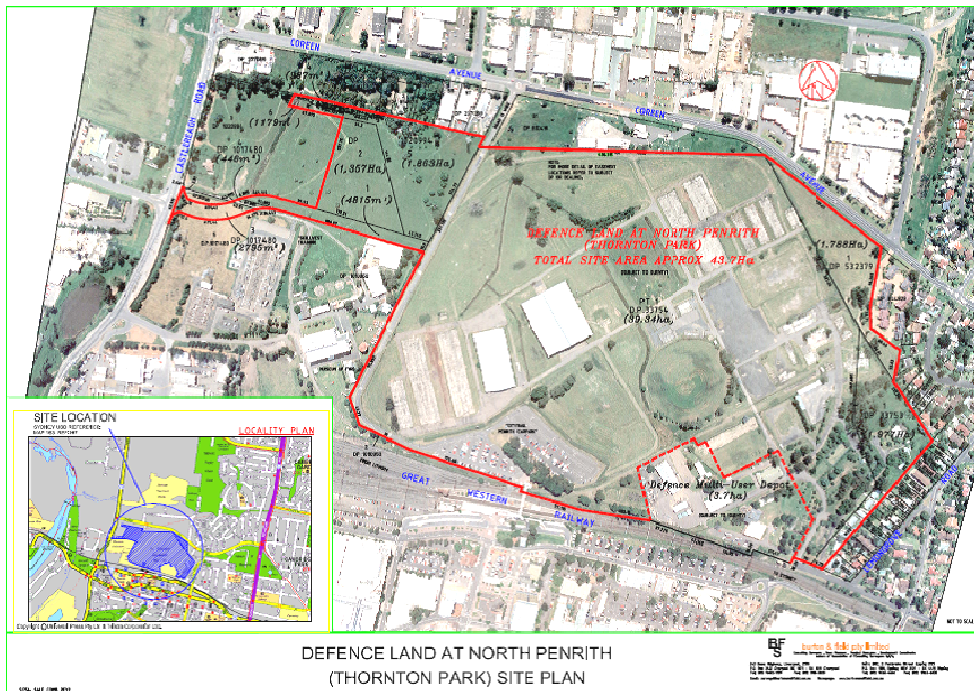
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- ☞ Review updated development plans and DGRs for the North Penrith site;
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- ☞ Review previous archaeological studies within the study area and locally;
- ☞ Consult with the Aboriginal community in accordance with the DECCW 2010 Aboriginal Cultural Heritage Consultation Guidelines;
- ☞ Visit the registered AHIMS site with the Aboriginal stakeholders;
- ☞ Produce a comprehensive Aboriginal Heritage Impact Assessment incorporating comments by the Aboriginal community.

Report authorship

This report was written by Jo McDonald.

Figure 2: The North Penrith Site Plan.



2. Site analysis

At a glance

The North Penrith project site is around 40 hectares of largely vacant land north of the Penrith CBD. The study area for current report is restricted to the north-eastern end of the larger North Penrith Site. The field inspection focussed only on the previously recorded site and its immediate surrounds.

The site

The North Penrith project site is around 40 hectares of largely vacant land north of the Penrith CBD. It was previously an army base and is well serviced. It retains one building on the Commonwealth Heritage List and has some Aboriginal heritage artefacts. Adjoining land use includes an army depot, a museum, industrial uses, a rail line and residences.

The project

Landcom proposes a mixed-use development of around 900 dwellings including affordable housing and aged housing (Figure 3). The village centre will provide around 4,000m² of retail and 9,000m² of commercial uses. There will be approximately 7ha of open space and 2ha for industrial use. The project will have elements of a transit-oriented development with high quality urban design. It will create 770 direct and 1,100 flow-on jobs.

The planning process

The project will develop in stages over five to seven years. The land will need to be rezoned to permit the intended uses. This requires listing the area as a State Significant Site and having it dealt with as a Major Project under the State's planning laws. This planning process is proceeding under Part 3A of the *Environmental Planning and Assessment Act, 1979*. Landcom is preparing an environmental assessment for a Project Application to facilitate Infrastructure and Early Works, including site preparation, infrastructure and roads.

The study area for current report is restricted to the north-eastern end of the larger North Penrith Site. The field inspection focussed only on the previously recorded site and its immediate surrounds. Because of the high levels of disturbance around the registered site, its boundaries are defined by artificial landmarks (the rear fences of residential lots, internal boundary fences of the military facility and a ploughed paddock). Previous studies (Brayshaw 1994, GML 2010) have dealt in more detail with the broader site context.

Vegetation

Originally, the Cumberland Plain contained a complex of woodland and forest associations adapted to the mostly clayey soils. Post-contact land uses have impacted heavily on the indigenous vegetation across the Cumberland Plain, including the study area. North Penrith development area consists of cleared and revegetated grassland, some wooded areas (mostly exotic trees), and dense exotic weed growth. It has been heavily modified by its use as an army depot.

The current study area, which includes Aboriginal site 45-5-2491, is cleared and grassed. There is a stand of larger trees (*Eucalyptus moluccana*) although few of these would appear to be older than 50 years in age. At the time of the current site visit the area had been mown, except around the stands of trees.



Plate 1: View of site 45-5-2491 from the open paddock south east of the main site.

Geology and topography

The study area is located c.1.5km west of the Nepean River. The registered site is on a very flat floodplain, which rises to a low ridgeline immediately to the east. The registered site is on Bringelly shale geology; very close to the boundary with the Cranebrook Terrace – a significant pluvial deposit which has good potential for early human occupation. Artefacts found within this landscape have been dated to between 40-47,000 years ago (Nanson *et al.* 1987: 77). Thick basal gravels were deposited across the Terrace almost contemporaneously with a sandy clay overburden until about 40,000 years ago; after which this landscape became more stable. The majority of the North Penrith site – which is very flat – is at the edge of a zone identified by the geomorphological work (Nanson *et al.* 1987: Figure 3) as potentially being 40-45,000 years old; with obvious implications for early human occupation sites in this part of Sydney.

Stream Order

Stream order has been used as a fundamental aspect of the predictive model for Aboriginal site location on the Cumberland Plain for some time (McDonald and Mitchell 1994). This method identifies the smallest tributary streams as first order streams and the classification continues stepwise downstream. Two first order streams join at a first order node to form a second order stream; two second order streams join at a second order node to form a third order stream and so on.

The logic behind the stream order model is that in any particular climate and landscape a threshold catchment area is probably necessary to allow permanent stream flow or the

establishment of waterholes with extended longevity (i.e. months to years). In the context of the Cumberland Plain with an average annual rainfall of between 700 and 900mm, the critical point where these conditions are met appears to be at the junction of two second or third order streams (second and third order nodes).

The current study area is located within a heavily modified landscape wherein it is difficult to assess the original stream layout. Site 45-5-2491 would appear to be located c.300m from Boundary Creek, a westerly flowing 2nd order stream which drains the area to the north of the larger North Penrith Site. The Nepean River is located less than 2km west of the site; and Peach Tree Creek, a third order stream flows into the Nepean around 1.6km west of the site. Brayshaw (1994:15) noted that there is a straight cut drainage channel cut through the flat land close to the site (along the line of the current fenceline); this suggests that the land here may have been prone to inundation, prior to the modified hydrology.

European Land use

As indicated already, the study area has undergone significant modification since European settlement. The 1961 aerial photo (Figure 3) illustrates that most of the study area had been cleared, and oral history indicates that this was used for more than 30 years as an orchard (Brayshaw 1994: 15). The area where most artefacts are visible on the surface today was, in 1961, a dam (Figure 3). The artefacts on the surface now – are where the dam wall would have been – meaning that the original context for these has been lost.

Figure 3: The study area showing previous landuse disturbance in the vicinity of the identified artefacts. On right is a 1961 air photo showing the site context for the registered site (from AMBS 2001: Figure 4).

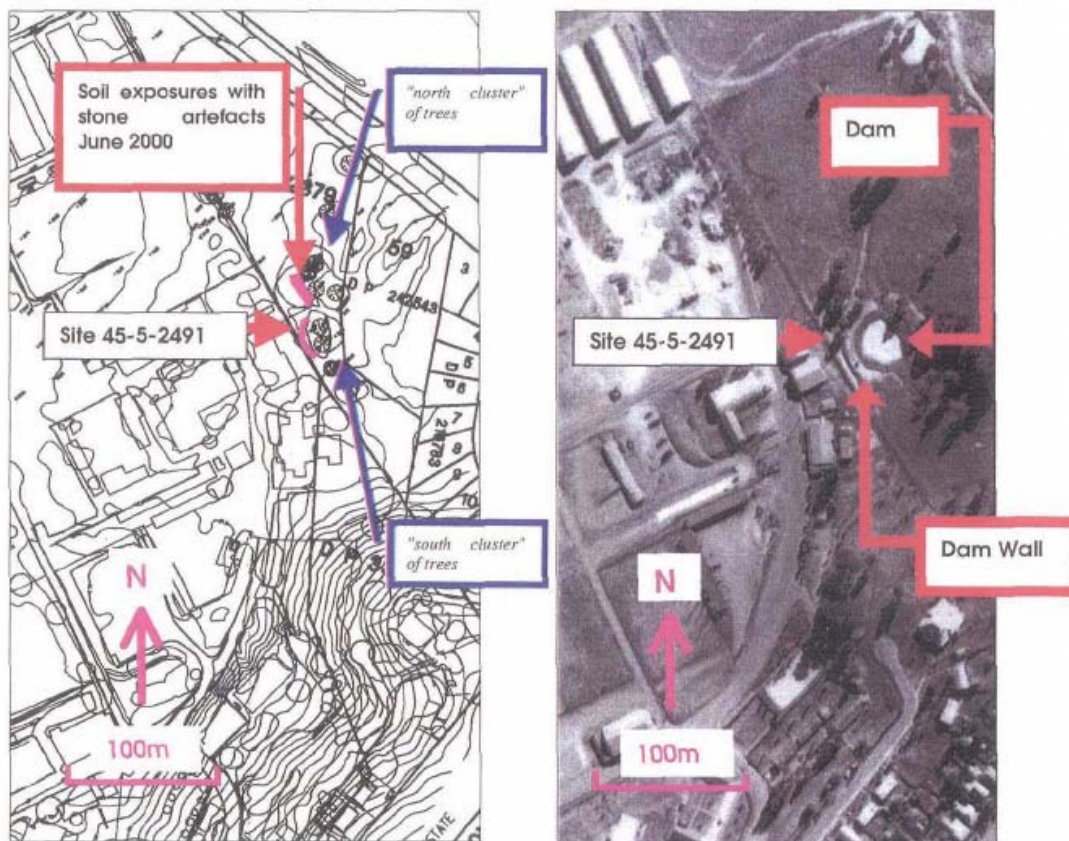


Figure 4: North Penrith Concept Plan. Indicative location of site 45-5-2491 circled in yellow.



3. Archaeological Context

Ethnohistorical Evidence for the Cumberland Plain

On 22nd April 1788, Governor Phillip ordered the first major inland expedition crossed the Cumberland Plain. At this time, evidence of Aboriginal people was seen 'everywhere' in the form of huts, camp fires, burning trees and partially eaten food (Flannery 1996:91). Barrallier, in his expedition through *Darug* and *Gandangara* territory in the early 19th century, describes the swamps in the Nepean River area as being excellent sources of fish, shellfish and 'enormous' eels. He states that:

the people from this area usually fed upon opossum and squirrels, which are abundant in that country, and also upon kangaroo rats and kangaroo, but they can only catch this last one with the greatest trouble, and they are obliged to unite in great numbers to hunt it (Barrallier 1802 [1975]: 2-3).

Such a kangaroo hunt, with a large group using fire, spears and 'tomhawks' was described near Menangle Swamp. The participants were spaced at '30 paces ... [and] formed a circle which contain[ed] an area of 1 or 2 miles' (Barrallier 1802[1975]: 3). Based on this description, in the order of 100 people may have been involved in this hunt, suggesting that such activities may have involved co-operation between several bands.

Lizards and grubs, 'particularly those which are found in the trunks of trees' were also documented as part of the diet (Barrallier 1802[1975]: 6, Collins 1798[1975]:462). For the purpose of collecting these grubs (*Cahbroga*) a specific utensil was used, this being described as:

a switch about twelve inches long and the thickness of a fowl's feather ... One of the extremities of this stick is provided with a hook. ... [which is used upon finding evidence of these grubs in the bark of trees having] widen[ed] the hole ... with their axe ... dip their switch into the hole, and, by means of the hook, draw it out, and eat it greedily. (Barrallier 1802 [1975]: 6).

Other specialized, inland, adaptations to localized resources include the 'squirrel traps' in hollow trees and 'decoys for the purpose of ensnaring birds' (Tench 1793[1961]: 154-5). These decoys were assessed as having great utility as they were full of quail feathers. Early accounts remarked on the facility with which men of the inland tribes climbed trees (Hunter 1793, Tench 1793, Collins 1798, Barrallier 1802). This was done for the purpose of obtaining possums (usually with assistance of smoke) and was achieved by cutting notches for toeholds 'with a stone hatchet' (Hunter 1793[1968]: 430; Tench 1793[1961]: 233). Possums and other tree dwelling animals were indeed the staple of the woodland tribes and that edge-ground hatchets were identified as the dominant subsistence item in the inland toolkit.

At the time of contact, Aboriginal dwellings on the Cumberland Plain were described as being made of the bark of a single tree, bent in the middle and placed on its two ends on the ground 'exactly resembling two cards, set up to form an acute angle' (Collins 1798[1975]: 460; Tench 1793[1961]: 154) and only large enough to house one person (Collins 1798[1975]: 460). These shelters (*gunyahs*) would be grouped together, up to a total of nine (Barrington 1802: 20).

It is not clear from the early accounts what sort of family or social groupings might have been expected in these camps, nor the spatial arrangement of these. It is also unclear for how long such camps would have been occupied, whether these were base or transient camps.

Archaeology in the Sydney Region

The first human colonisation of the Australian continent is generally accepted as occurring c. 43-45ka (O'Connell & Allen 2004). Evidence from archaeological excavations has demonstrated that the Sydney region has been populated for the last 30,000 years. Early excavations from the Blue Mountains and south coast gave initial occupation dates of c. 22,000 BP (Kings Tableland, Blue Mountains) and c. 20,000 BP (Burrell Lake, South Coast) respectively (Stockton 1993). More recent work in Parramatta has increased the antiquity of occupation in the Sydney Region to 30,000 BP (JMcD CHM 2005b). Although the Cumberland Plain has been inhabited for c. 30,000 years, evidence shows that the region was most intensively occupied in the last 3-5,000 years (Attenbrow 2002, 2004; McDonald 2008).

Many of the earliest excavations in this region were of rockshelters in the sandstone country surrounding the Cumberland Plain (e.g. Attenbrow 2002, 2004; McDonald 1994; Nanson *et al.* 1987). Much of our information about the original inhabitants of the locality came from these. Development pressures in Western Sydney over the last decades have led to the increased excavation of open sites in the Cumberland Plain. This ongoing work, combined with other archaeological investigations over the past twenty years has provided substantial evidence for Aboriginal occupation, settlement patterns and resource use in this region. Archaeologically, the Cumberland Plain is now one of the most extensively investigated regions in Australia.

McCarthy first proposed the Eastern Regional Sequence (ERS) in the 1940's and further developed it through to the 1960's (1948, 1964) as a framework for understanding changes in lithic technologies in the Sydney region from the late Pleistocene through to the Holocene. Subsequent archaeological work in this region has further refined this (Attenbrow 1997, 2002, 2004; Hiscock and Attenbrow 1998, 2005; McDonald 1994). Looking at the sequence of technological changes provides a context from which we can assess and comprehend changes in occupation patterns and resource exploitation in this region. The ERS is a regional variant of the Core Tool and Scraper Tradition changing to the Small Tool Tradition and consists of 4 phases: Pre-Bondaian; Early Bondaian; Middle Bondaian; Late Bondaian (**Error! Reference source not found.**).

The change from Pre-Bondaian to Bondaian is characterised by a major shift in raw material use and a later predominance of smaller implements. Phases within the Bondaian are based on the introduction and then decline of the backed artefact, the increasing dominance of bipolar flaking and a change in proportions of raw material.

The following is a summary of the findings of previous archaeological work on the Cumberland Plain:

In general:

- ☞ The complexity of the Cumberland Plain's archaeological record is far greater than was previously identified based on surface recording and more limited test excavation. Similarly, the time span of Aboriginal occupation has been demonstrated to be far greater than was originally thought; and,
- ☞ Gross patterning is identifiable on the basis of environmental factors: archaeological landscapes on permanent water are more complex than sites on ephemeral or temporary water lines (McDonald 1996: 115). This has now been documented broadly across the Cumberland Plain with numerous excavations in the RHDA, at the former ADI Site and on the Parramatta River.

Specifically:

- ☞ Most sites encountered will be of mid- to late Holocene age. Specific geomorphic conditions for the preservation of Pleistocene-aged assemblages (e.g. deep sand bodies) do occur commonly on the Cumberland Plain;

Table 1: The Eastern Regional Sequence (dates from JMCD CHM 2005b).

Period	Age	Description
Pre-Bondaian	30,000-9,000 BP	Preference for the use of silicified tuff unless at an extreme distance from sources. This is augmented with quartz or other local materials, also grainy stone raw materials. Cores and tools vary widely in size, some quite large. No backed artefacts, elouera or ground stone. The predominant technique is unifacial flaking. Bipolar flakes are rare. The 30,000BP date possibly indicates the earliest time frame for this phase
Early Bondaian	9,000-4,000 BP	The use of silicified tuff declines, more use is made of local stone materials, especially at sites occupied for the first time. Backed artefacts appear sporadically. Bipolar flaking is widely in use but only rarely at individual sites. Bifacial flaking probably continues as predominant technique
Middle Bondaian	4,000-1,000 BP	The use of different raw material types varies between and within sites over time. Main phase of backed artefact. Introduction of asymmetric alternating flaking. Substantially smaller cores and tools. Increase in bipolar flaking. Ground stone artefacts appear, though infrequently and present at fewer than half the dated sites. Elouera appear but are rare
Late Bondaian	1,000 BP to European Contact	The use of different raw material types continues to vary. Backed artefacts become rare or absent from most sites. Bipolar cores make up 2% or more at most sites. Ground stone found at most dates sites but usually <2% of assemblages. Elouera remain rare.

- ☞ Where sandstone features are present (e.g. overhangs and platforms) they may have been used for habitation, processing basalt ground-edged axes or the production of art;
- ☞ Most areas, even those with sparse or no surface manifestations, contain sub-surface archaeological deposits;
- ☞ Where lithic concentrations are found in aggrading or stable landscapes, they are largely intact and have the potential for internal structural integrity. Sites in alluvium possess potential for stratification;
- ☞ The density and diversity of implements and *debitage* is conditioned by permanence of water (stream order), landscape unit and distance to lithic source;
- ☞ Where silcrete outcrops occur naturally there will be evidence for quarrying and likely some reduction activity in the vicinity; and
- ☞ Contrary to earlier models for the region (e.g. Kohen 1986, Smith 1989) many areas contain extremely high artefact densities, with variability appearing to depend on the range of lithic activities present. Densities in excess of 400/600 artefacts/metre square are not uncommon in the RHDA on knapping concentrations.

Local Context

An AHIMS database search for registered Aboriginal sites in a 5km x 5km area was requested on 18th July 2010. This revealed that there were 25 registered sites in the local area, including the site within the current study area (#45-5-2491). The most commonly found sites around the study areas are open artefact scatters (19 sites; c.76%) followed by isolated surface stone artefacts (5 sites: 20%). There is one registered open engraving site in this area. This

however, is on a block of sandstone which has been removed from its original context and is currently housed at the Penrith Regional Art Gallery.

Background to the Management Issues related to site 45-5-2491

An Aboriginal archaeological site (AHIMS# 45-5-2491) is recorded within this development area and previous recommendations have indicated that this should be set aside as a conservation area (Brayshaw 1993, AMBS 2001). The Thornton Park Masterplan (Penrith City Council 2002, based on Brookes & Associates 2001) identifies the following planning policy for Indigenous heritage in the development area, based on those earlier reports. The objective was to conserve Aboriginal heritage in accordance with the National Parks and Wildlife Act 1974.

- ☉ The conservation and management of the Aboriginal site 45-5-2491 should be undertaken in accordance with the findings and recommendations of the report prepared by ABMS 2001 and Helen Brayshaw 1993.
- ☉ Within future proposals for development at Thornton Park, the site should be preserved intact within a dedicated public open space separated from site works, buildings and trenched services.
- ☉ The dedicated reserve should be located, dimensioned and designed in accordance with the recommendations of a qualified Aboriginal archaeologist, and in consultation with the Deerubbin Local Aboriginal Land Council.
- ☉ The site should be restored to a natural setting using methods which do not disturb the soil surface.
- ☉ All visible rubbish should be removed from the surface by hand, and monitored by a representative of the local Aboriginal land Council.
- ☉ Where possible a representative of the Deerubbin Local Aboriginal Land Council and/or Darug Tribal Aboriginal Corporation should be contracted to undertake this work.
- ☉ Topsoil should be added and grass cover promoted to cover all areas to protect Aboriginal stone artefacts.
- ☉ Signage which draws attention to the presence of stone artefacts at the site should not be erected.
- ☉ Non-obtrusive educational signage which mentions that the park conserves important evidence of Aboriginal activity including the manufacture of stone tools is appropriate.
- ☉ Any future development within the park, e.g. construction of amenities etc., should be subject to test excavation by a qualified archaeologist working with the local Aboriginal community.
- ☉ An on-going maintenance plan should be prepared and implemented for Aboriginal site 45-5-2491, as part of the future conservation of the site.

4. Regulatory context

At a glance

As this study area is being developed under Part 3A of the Environmental Planning & Assessment Act.

As this study area is being developed under Part 3A of the Environmental Planning & Assessment Act, The Director-General's Requirements (DGR) for Indigenous Heritage also require consideration. The DGRs for the North Penrith Project are:

4. Heritage

- (1) The EA shall provide an archaeological and Aboriginal cultural heritage assessment in line with the draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005*; and

5. Consultation with the Aboriginal Community

At a glance

The DECCW 2010 Consultation Guidelines were adhered to in the consultation with the Aboriginal community. All registered and self-identified stakeholders were invited to inspect the registered site on the 27th July 2010 and most participated in the field inspection.

The study area falls within the boundaries of the Deerubbin Local Aboriginal Land Council (DLALC) and is also within the area of interest for native title claimants under the Darug Tribal Aboriginal Corporation's claim (NC97/8). These claimants are represented by the Darug Custodian Aboriginal Corporation (DCAC), Darug Tribal Aboriginal Corporation (DTAC), Darug Aboriginal Cultural Heritage Assessments (DACHA) and Darug Land Observations (DLO).

Under the current DECCW Community Consultation Guidelines other Registered Stakeholders with DECCW for this area are Des Dyer (Darug Aboriginal Land Care Incorporated) and Scott Franks (Yarrowalk/Tocomwall).

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Aboriginal Heritage Assessment - Invitation to Register Interest

Landcom are seeking Expressions of Interest from relevant Aboriginal groups or individuals. As part of a Part 3A development application for a mixed residential development at North Penrith, they seek to consult with all Aboriginal persons and organisations that have knowledge of, or a right, or interest in, the Aboriginal cultural heritage of the Penrith area. This consultation is in accordance with the DECCW Director General's requirements for the project and the requirements of the DECCW Community Consultation Guidelines.

This assessment will assist the Department of Planning in the consideration and determination of the Concept Plan and any Project Application(s).

Any Aboriginal group or individual wishing to participate in the processes of archaeological assessment should register their interest in writing, providing their name, address, phone number and details of their connection to the area and the skills and experience they would bring to the process. Submissions should be registered with Jo McDonald Cultural Heritage Management, 77 Justin Street, Lilyfield NSW 2040 by July 15 2010, providing the information requested above.

An advertisement for interested Aboriginal groups or individuals was placed in the Penrith Star with the deadline for responses being the 15th July 2010 (see below). One additional group identified themselves in response to this advertisement – this being members of the Hickey family, who have formed Widescope Indigenous Group Pty Ltd.

All registered and self-identified stakeholders were informed of the intention to inspect the registered site on the 27th July 2010 and invited to participate in the field inspection (Appendix 1).

Representatives of Deerubbin LALC (Steve Randall), DTAC (John Riley), DCAC (Justine Copland), DACHA (Celestine Everingham), DLO (Gordon Workman) and Yarrowalk (Scott Franks) attend the site inspection on Wednesday 4th August 2010.

The site was reinspected and various options for management were canvassed with the groups' representatives. The visit confirmed the presence of many surface artefacts, but all groups' representatives were firmly of the view that the

area concerned was small and was not in pristine condition.

A copy of this report in draft form will be submitted to all of the groups (on the 31st August) for their comment, and seeking their views on cultural and Aboriginal significance. Responses from groups received within the 28 day DECCW designated response period (i.e. 28th September) will be included in Appendix 1.

6. Fieldwork Inspection

At a glance

The registered archaeological site was inspected by the archaeologist and members of the Aboriginal community. Its current condition was assessed and discussed. Various management options were discussed on site with Landcom representatives.

The location of the recorded site #45-5-2491 was inspected on Wednesday 4th August 2010 by the representatives of the Aboriginal community accompanied by Archaeologist Jo McDonald and Landcom representatives Nicole Woodrow and Adam Hirst. The area was located and assessed for its current condition. Photographs were taken of artefacts and the general site context and GPS co-ordinates were logged (using a hand-held GPS (using datum GDA 94). Given the detailed recording of artefacts made previously (Brayshaw 1993, AMBS 2001) these were not re-recorded. In the order of 50 artefacts were observed across two major areas of exposure, as described previously.



Plate 2: Facing northwest across the main area where surface artefacts were located.

The site was as described previously (Brayshaw 1993, AMBS 2001). It is located in a narrow parcel of land between two fence lines, near the north-eastern boundary of the development area ($^{\circ}87179E$ $^{\circ}6263416N$). Inspection of previous photographs (Brayshaw, AMBS) indicates that the condition of the site is little changed: the ant nest and areas of exposure are still present as are a number of surface artefacts. The area had been recently mown and vehicles moving across the site have left clear tire impressions/ruts in the exposed areas.

Air photo interpretation indicates that the paddock within which the site is located has been ploughed - with the exception of the immediate surrounds of the site (Figures 2 & 3). This paddock is the least disturbed area across the entire development area. Fragments of brick, glass ceramic, bitumen and other introduced materials were observed on the open exposures where artefacts were also seen.



Plate 3: View to the south-east across the same ant's nest recorded by Brayshaw 1993.

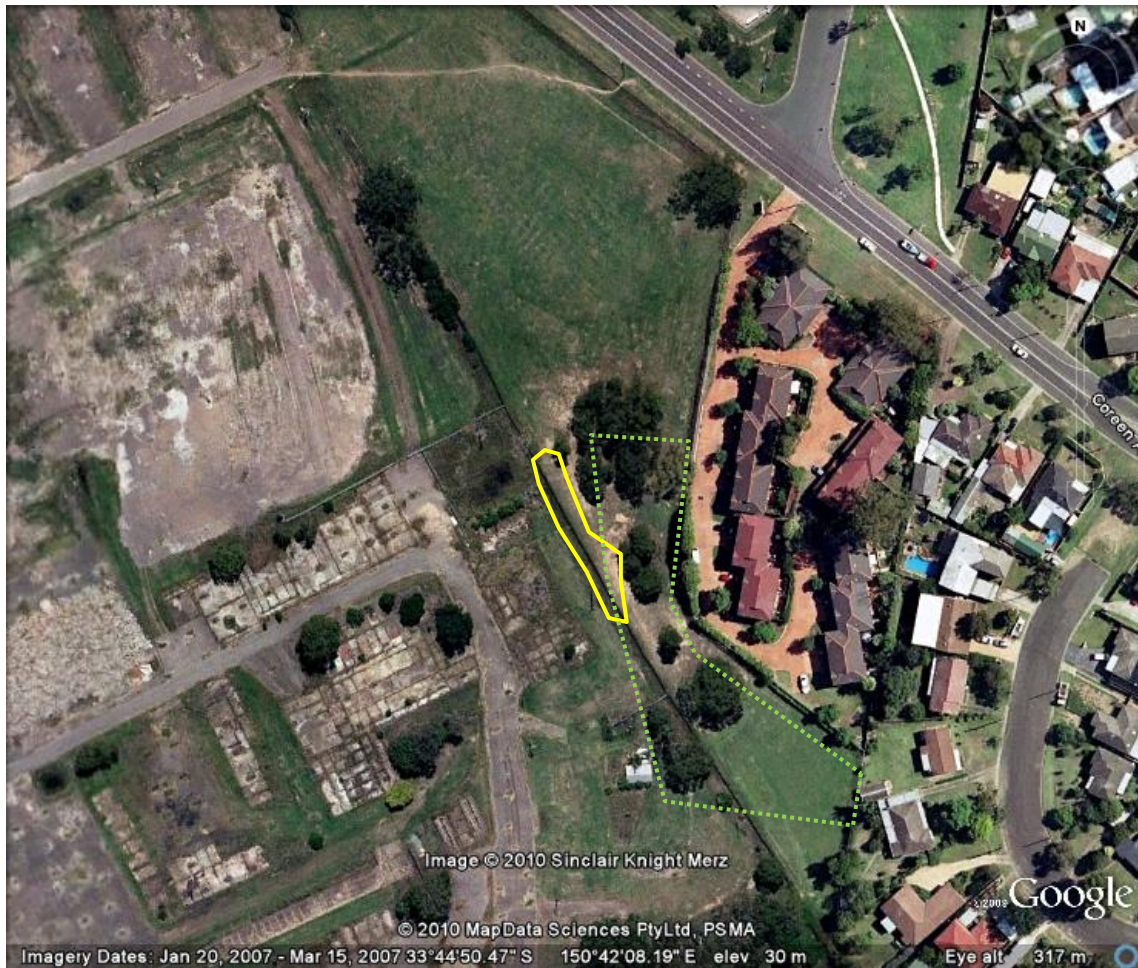
As discussed in the AMBS report (2001:9) a dam was once located just to the east of site 45-5-2491 with the dam wall appearing to cover the area where artefacts have been recorded (Figure 3). AMBS suggested that the artefacts may have been brought into the area with the soil used to create the dam wall, or to fill in the dam in the 1960s. The artefacts may also be from the local area but may have been moved when soil was moved for dam works.

It is unlikely that these artefacts are in their original context or that the site contains extensive intact archaeological deposit.



Plate 4: Examples of some of the artefacts found on the surface at site #45-5-2491.

Figure 5: Air photo showing site in its local context. Artefacts were observed over the surface within the area marked in yellow. The green dotted line identifies the area designated previously as Open Space.



High levels of colluvial gravels amongst the surface finds suggest that the Unit A soil horizon (where artefacts were usually found) is fairly thin (i.e. is unlikely to contain depth or preserve context for the artefacts). The fact that this area has not re-vegetated in the last decade (since the decommissioning of the dam) suggests that the topsoil layer has been stripped, and mixed with underlying clays, impeding grass growth.

Between 25-50 surface artefacts have been observed (variously by Brayshaw 1993; AMBS 2001; the current inspection) at the site. It is, however, devoid of landscape context (i.e. is sandwiched between residential blocks and in mostly extremely disturbed land).

The site has minimal integrity due to relatively high levels of existing and previous disturbance.

7. Assessment and Management Principles

At a glance

Good cultural heritage management practise advocates that site conservation – should target archaeological and cultural sites that are in good condition and are good representative examples.

In order to appropriately manage site #45-5-2491, it is necessary to assess the Aboriginal heritage values of the study area, and to assess the archaeological significance and/or potential of this and the area proposed originally as an Archaeological Park (Brayshaw 1993, AMBS 2001). This assessment includes the identification of potential to contain intact archaeological deposit (i.e. only minimally disturbed by previous land use impact) and whether this is in a landscape which is locally and regionally threatened by urban development. These two factors affect the assessment of high conservation value.

The general cultural heritage management philosophy when it comes to identifying sites for conservation - is that an Aboriginal archaeological site should be in good condition and be a good representative example – worthy of conservation effort.

An archaeological sensitivity map has been created for this site on the basis of prior land use impacts and the results of the survey (Figure 6). Four zones of archaeological sensitivity are commonly identified for this purpose, although only three are found within the current study area.

- ☞ Zone 1 – High archaeological potential
- ☞ Zone 2 – Moderate archaeological potential
- ☞ Zone 3 – Low archaeological potential
- ☞ Zone 4 – No archaeological potential

These zones are used to assist in the assessment of the sites and landscapes within the study area.

There is no Zone 1 land in the study area – and hence no area considered worthy of conservation. Much of the initial proposed Archaeological Park, and about half of the currently proposed retained vegetation is designated as Zone 4 and is assessed as having minimal or no archaeological potential. The south western edge of the study has been impacted by previously existing buildings, drainage ditch and roads. The Zone 4 area in the central eastern section of the study area was impacted by the now-infilled dam and dam wall (see Figure 4).

The surface artefacts are located in a stripped area which is designated Zone 3 (low archaeological potential), along with the narrow strip between where the dam was located and the drainage ditch. The small remainder of study area (mostly beneath the large tree's canopies) has moderate potential to contain intact archaeological deposit (i.e. is Zone 2). It is less disturbed than the surrounding areas, and the presence of larger trees here indicate that this area has not been as significantly disturbed. The proposed retained vegetation does contain surface artefacts, but with very little potential for intact deposit. The area of proposed retained vegetation contains most of the area which is designated Zone 2 but the area with surface artefacts (Zone 3) will be impacted upon by the construction of housing. Given the

small size of the sensitive area (Zone 2), it is not considered worthy of a systematic sub-surface archaeological investigation. It is notable that Brayshaw made the same conclusion in her 1993 report (1993: 17).

Figure 6: Zones of archaeological potential. The previously proposed Archaeological Park is outlined in red.



Cultural significance

This usually refers to the importance of a site or feature to the local Aboriginal community. Certain sites, items and landscapes may have traditional significance or contemporary importance to the community. This importance may involve both traditional links with specific areas, as well as an overall concern by Indigenous people for continued protection of their sites in general. Cultural significance must be assessed by the relevant Aboriginal community – in this case Deerubbin Local Aboriginal Land Council, Darug Custodial Aboriginal Corporation, Darug Tribal Aboriginal Corporation and Darug Aboriginal Cultural Heritage Assessments.

A report outlining the field inspection of the study area and its assessed cultural or Aboriginal significance should be forwarded by the Aboriginal groups and their views on the conservation values of this place sought.

Scientific significance

One of the aims of cultural heritage management is to preserve a representative sample of the archaeological resource for the benefit of future scientific researchers and the general public. Assessment of scientific significance involves placing a site or heritage item within a broader regional framework, as well as assessing the site's individual merits in light of current archaeological discourse. This usually includes an assessment of a site's potential to answer current archaeological research questions. Assessment is also based on the condition (integrity), content, and representative of a site, e.g. is it representative of a certain site type? Is it a rare or exceptional example? Can it contribute information that no other site can?

On the basis of the field inspection of the study area and the intactness/integrity of archaeological deposits in surrounding areas, it is highly unlikely that this site would retain significant intact archaeological deposit. Previous land use here includes clearing and agricultural uses (including a farm dam), which will have a substantial impact on sub-surface deposits. This site is assessed as having **low scientific significance**.

Public significance

This usually refers to a site's potential to educate the general public about Aboriginal culture, but can have a broader definition. Increasing public awareness and understanding about a site's Indigenous and scientific values may spare other sites spared from inadvertent or intentional destruction. Educating the public to appreciate the past may increase the chances of archaeological resources surviving into the future.

Public significance may also include the different community values placed on a site or heritage place. These may include its importance to local residents or the wider community: e.g. aesthetic values, recreational values, links with local European history and local identity.

Previous uses within the development area have significantly changed the environs of this site. This combined with the low visibility of the archaeological evidence here, and the small area over which artefacts can be seen, mean that the study area has been assessed as having **low public significance**.

Management Principles

The currently accepted cultural heritage management principles have been applied to site #45-5-2491. These principles are predicated on the assessment of archaeological sensitivity based on previous levels of land-use disturbance.

- ☞ Sites and/or landscapes with high archaeological potential and/or Aboriginal significance (particularly in a threatened landscape) should be considered as worthy of conservation, and development impacts on these should be avoided.

- ☞ Sites and/or landscapes with good archaeological potential or Aboriginal significance (particularly in threatened landscape) should be avoided if possible by development proposals. If impacts are unavoidable then these features should be subject of further investigation to ensure that information is retrieved prior to their destruction. Selection of salvage areas should be made on the basis of a 'whole of development' approach and be landscape based;
- ☞ Sites and/or landscapes with moderate archaeological potential or Aboriginal significance should be managed on the basis of their assessed significance. These areas would only require sub-surface investigation if they provided landscape parameters which are poorly understood in the local and regional context; and
- ☞ Sites and/or landscapes of low or no archaeological potential or Aboriginal significance do not require planning consideration or further archaeological investigation in relation to the proposed development.

Managing identified sites/landscapes

The proposed management strategy for site #45-5-2491 is predicated on a landscape-based philosophy. This approach advocates conserving archaeological landscapes based on landscape parameters (McDonald 1996). These areas should be managed on the basis of their archaeological sensitivity.

- ☞ No land within the current study area has been identified as worthy of conservation (i.e. Zone 1);
- ☞ Most of the current study area has been assessed as Zone 3/4, having low - no archaeological potential;
- ☞ A small area of the subject land – below the larger trees - is assessed as having Zone 2 PAD (moderate potential archaeological deposit).

Land in Zone 3/4 poses no constraint to development. Further archaeological works will not be required in these areas.

The area of land which is designated Zone 2 PAD is too small to warrant further archaeological investigation. The Zone 2 PAD in the proposed area of retained vegetation can be protected as part of an optimal planning solution which considers ecological and cultural heritage matters.

Based on the nature and significance of the identified site, it is concluded that the most appropriate management outcome for this site is not conservation in the pure sense of the word.

It may be more appropriate to acknowledge the presence of this site – and more importantly - the Aboriginal history of this place – in a landscape context somewhere else within the North Penrith development area. For instance, the proposed Open Space around the Thornton Park provides various opportunities to include interpretative elements – in a space which is more conducive to Interpretation. The small area of retained vegetation which will remain between existing houses and the proposed medium density housing at site #45-5-2491 is not suited to an Interpretive display, but it can be expected that parts of soils associated site 45-5-2491 will be retained also within this area. Landcom has proposed the following options within the Thornton Park Open Space (Figure 7):

1. Use of text references or language into the proposed low concrete walls being constructed as an entry statement up the hill to the viewing terrace;
2. The incorporation of Aboriginal art work and/or graphics into these same walls;
3. An interpretative display in an open clearing (to be known as the community gathering spot) at the north of the park – which could also act as a keeping place for artefacts removed from the archaeological site.

Figure 7: Possible options for Interpretation of Aboriginal heritage in the Thornton Park Open Space.



These options require consideration by the Aboriginal community and registered Aboriginal stakeholders for the area.

Conclusions

1. There are no Zone 1 lands around registered site #45-5-2491, therefore no part of this site warrants conservation. Given the small size of the area identified with surface stone artefacts, our increased knowledge of open sites in the region over the last decade, and the lack of integrity of this landscape, this site is assessed as being a poor candidate for conservation effort;
2. The identified surface site has only a small area of associated Zone 2 PAD. Given the small size of the affected sensitive area, this is not considered worthy of sub-surface archaeological investigation;
3. Because of the ecological value of the larger trees and the presence of identified artefacts, Landcom proposes to restrict the development of the site by the inclusion of an 88B instrument over the retained vegetation. This will preserve any archaeological deposit below the larger trees (Figure 8); and,
4. The remainder of the registered site is assessed as Zone 3/4 should be considered developable without archaeological constraint. There is no requirement for further archaeological investigation within these parts of the study area.
5. This assessment was undertaken under the provisions of Part 3A of the *Environmental Planning and Assessment Act*, 1979, but in full cognisance of the requirements of Sections 87 and 90 of the *National Parks and Wildlife Act*, 1974 (NPW Act). Because the provisions of Part 3a 'turn off' s90 of the NPW Act there is no requirement for an AHIP to be sought for the management of site 45-5-2491.

Figure 8: Areas of retained vegetation where archaeological evidence can be conserved (trees shown in yellow to be retained).



8. Recommendations

At a glance

This chapter outlines the management recommendations relating to Aboriginal cultural heritage at the North Penrith site. It is recommended that the views of the Aboriginal community regarding the management outcome of site 45-5-2491 should be taken into consideration in the final planning outcome. Options for retaining part of the identified site and for interpretation elements within designated open space adjacent to Thornton Park are proposed.

The following recommendations are based on:

- ✎ The fact that earlier management decisions relating to site 45-5-2491 were made under legal requirements 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, DECCW, NSW;
- ✎ The likely impacts of the proposed development and the fact that this development is proceeding under the provisions of Part 3A of the *Environmental Planning and Assessment Act, 1979*.
- ✎ The management zones based on archaeological sensitivity identified across the study area;
- ✎ The results of the field inspection in the study area; and,
- ✎ The interests of Deerubbin Local Aboriginal Land Council and the other registered Aboriginal stakeholders in the North Penrith area.

It is recommended that:

1. Landcom should consider the views of the Aboriginal community when determining the management regime and interpretation of site #45-5-2491;
2. In the future detailed planning stage proposed for the North Penrith Development area, Landcom should assess the Aboriginal heritage values associated with the two historic properties in this development area (Thornton Hall and setting and the Combewood outbuildings) as previous studies have not included an Indigenous assessment of these two properties;

3. Two hard copies and one electronic copy of this report should be sent to:

Ms Lou Ewins
Department of Environment, Climate Change and Water,
PO Box 668
PARRAMATTA NSW 2124

4. One copy (each) of this report should be sent to:

Mr Frank Vincent
Deerubbin Local Aboriginal Land Council
PO Box 3184
Mt DRUITT NSW 2770.

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

Mrs. Sandra Lee,
Darug Tribal Aboriginal Corporation
PO Box 441
BLACKTOWN, NSW, 2148

Mr. Gordon Morton
Darug Aboriginal Cultural Heritage Assessments
c/o 90 Hermitage Rd
KURRAJONG HEIGHTS, NSW, 2758

Mr Gordon Workman
Darug Land Observations
PO Box 571
PLUMPTON NSW 2761

Mr Des Dyer
Darug Aboriginal Land Care Inc
18a Perigree Close
DOONSIDE NSW 2767

Ms Amanda Hickey
Widescope Indigenous Group Pty Ltd
73 Russell Street
EMU PLAINS NSW 2750

Mr. Scott Franks
Yarrawalk
PO Box 76
CARRINGBAH NSW 1495

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Appendix 1: Consultation Log

Date	Group	Action	Method/person
6/7/10	DTAC, DCAC, DLO, Yarrowalk, DLALC	Notified of project and forwarded Penrith star ad	email
6/7/10	DACHA	Notified of project and forwarded Penrith star ad	post
6/7/10	DECCW	notification of registered stakeholders	letter
9/7/10	DCAC	Registration of interest and request to be involved	Leanne Wright
12/7/10	Widescope Indigenous Corp	Expression of Interest to be involved	Amanda Hickey
26.7.10	DLALC	Spoke to Kevin Cavanagh about job and arranging a site visit	phone
27.7.10	DLALC	Steve Randall – available on Wed 4 th August (copy of report sent via email)	phone
27.7.10	DACHA	Spoke to Celestine; she is available for inspection next Wednesday; said I would fax the report	phone
27.7.10	DCAC, DTAC, DLO Yarrowalk	Sent emails with copy of the report asking whether they can attend a site visit next Wednesday (Leanne in NZ at a wedding, Justine working with Sandra on site; speak to her tomorrow	email
27.7.10	DTAC	Spoke to Sandra Lee – she can attend site visit next week	phone
27.7.10	Widescope IG and DALCI	Letters sent informing these groups that there would be a site inspection on 4 th August, but that this was seeking cultural values not an employment opportunity per se.	letters
4.8.10	All attendees	Site inspection	
11.8.10	Yarrowalk	Letter report received	Email
1.10.10	DLALC, DCAC, DTAC, DLO, Yarrowalk	Draft copy of report sent to all groups	Email
1.10.10	DACHA, Widescope DALCI	Draft copy of report sent to all groups	mail