Assessment of Aboriginal Heritage

at 60 Wallgrove Road, Minchinbury, NSW



April 2009

Report to ICPS

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1. INTRODUCTION AND BACKGROUND

I.I Background to this Investigation

Jo McDonald Cultural Heritage Management (JMcD CHM) was commissioned by ICPS to conduct an assessment of Aboriginal heritage values at 60 Wallgrove Road, Minchinbury. The subject site is currently used as the Eastern Creek Quarantine Station. ICPS have been employed by the land owners Afteron Pty Ltd to manage the rezoning process of this site. The site is to be rezoned for industrial land uses via the "Concept Plan" process under Part 3A of the Environmental Planning and Assessment Act 1979. This report is one of a series of studies including Flora, Fauna and European Heritage.

1.2 Scope and objectives of this report

This report is designed to identify development opportunities and constraints in terms of Aboriginal cultural and archaeological heritage. This archaeological assessment of the subject site is being submitted at an early stage of development planning to allow best cultural heritage management practices to be incorporated into the development process. The following tasks are achieved by this study:

- A review of previous archaeological investigations undertaken near the subject site to help the development of a predictive model within the study area;
- Identification and mapping of surface archaeological sites and areas of cultural and potential archaeological significance;
- Advice on appropriate planning and management requirements to protect areas of significance, including development guidelines; and
- Appropriate management recommendation to ensure that the integrity of cultural heritage management within the subject lands.

Summary of findings and recommendations

During the archaeological survey for this report six new Aboriginal archaeological sites were located and recorded. Site QI is an Open Scatter, Q2-Q6 are Isolated Finds

(Figure 5). Discovery of these sites were dependant on surface exposure. The Cumberland Plain is generally an aggrading land surface that results in artefact scatters/Aboriginal sites being buried over time. Surface findings are thus merely indicative of the archaeological evidence present across this land. Given the high number of identified surface sites here, and the wisdom that this is unlikely to be a true reflection of the full extent of archaeological evidence across the study area, land use impact assessment has been undertaken to discover where potential archaeological deposits (PAD's) may occur within the study area. Two PAD's were identified during this investigation: one in a stand of trees located just north of the centre of the study area, the other area in the east paddock (Figure 6).

It is recommended that:

- Several small areas are identified as having higher archaeological value (Zone I)
 although these are not assessed as having overall conservation value. The entire
 study area should be considered to be developable (on archaeological and
 Indigenous heritage grounds);
- 2. An Aboriginal Heritage Management Plan should be devised based on the results of this investigation and the views of the Aboriginal groups. This AHMP will identify a meaningful management strategy for Indigenous heritage within the subject land. The AHMP should develop a salvage programme based on the salvage of a target area in the east paddock (zone I and where three of the six sites were identified):
- 3. The development of the AHMP should involve the Aboriginal community and regulators, and the Aboriginal community should be involved in the salvage excavations;
- 4. Zones 2 and 3 have low archaeological potential and should be considered as developable, with no requirement for further archaeological investigation in these areas;
- 5. Once the AHMP has been agreed upon and the research methodology approved for a salvage locations, a sign-off from DECC NSW should be sought in accordance with Part 3A development conditions (in the manner of a 'whole of development Section s87/90 Permit' under the usual heritage procedures as defined by the NPWAct 1974 as amended).

6. One copy each of this report should be sent to:

Mr Frank Vincent

Chairperson

Deerubbin LALC

PO BOX V184

MT DRUITT VILLAGE NSW 2770

Ms Sandra Lee

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PO Box 441

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KELLYVILLE NSW 2155

Mr Gordon Workman

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Mr Gordon Morton

Darug Aboriginal Cultural Heritage Assessments

28 Calala St.

MT DRUITT NSW 2770

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

Ms Lou Ewins

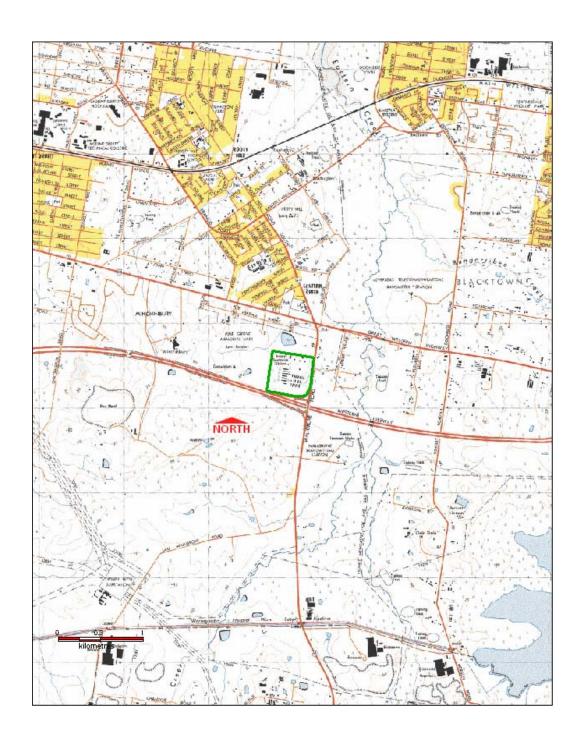
Planning and Aboriginal Heritage Section

Metropolitan Region

Department of Environment and Climate Change

1. PO Box 668 PARRAMATTA, NSW 2150

Figure 1: Location of the study area (Prospect 1:25k topographic map sheet).



2. ABORIGINAL COMMUNITY CONSULTATION

The subject site falls within the boundaries of the Deerubbin Local Aboriginal Land Council (DLALC). The site also falls within the area of interest to the Darug Tribal Aboriginal Corporation (DTAC) the Darug Custodial Aboriginal Corporation (DCAC), the Darug Aboriginal Cultural Heritage Assessments (DACHA) and the Darug Land Observation (DLO).

Aboriginal representatives from each group participated in the field survey. The subject site was surveyed twice to allow all Aboriginal groups to be involved. On the 16th February 2009, Phil Kahn (DLALC) carried out the field survey. On the 17th February 2009, Leanne Watson (DCAC), Yvonne McMartin (DTAC), Gordon Morton (DACHA), Gordon Workman (DLO) and Ron Workman (DLO) accompanied the archaeologists in the field survey.

All Aboriginal representatives were offered input to the recommendations made in this report. Each Aboriginal community will submit their own report of the study area which will be compiled in Appendix (2). A copy of this draft report will also be sent to each of the Aboriginal Groups to assist in their response with any comments or objections.

3. THE STUDY AREA

The subject site comprises 22 hectares of land immediately west of Wallgrove Road and the north of the Western Motorway in Minchinbury (Figure 1). The land is currently operating as the Eastern Creek Quarantine Station, and was opened as such in 1980.

Much of the site has been built upon, with office buildings, car park, stables, kennels, cat cages, exercise yards, bee facilities, and green houses for plant quarantine. There are five vegetated areas within the study area that have not been built upon:

- A stand of trees amongst the buildings (Stand I);
- a stand of trees on the eastern boundary (Stand 2);
- a stand of trees in the north east corner of the study area (Stand 3);

- the back paddock on the western and part of the south boundaries of the study area (Back Paddock);
- and a paddock on the east and south boundaries of the study area (East Paddock)

The vegetated areas can be seen in below Figure 2,

Figure 2: A recent aerial photograph of the study area supplied by ICPS.



3.1Geology

The subject site is west of Sydney on the Cumberland Plain, located on Bringelly Shale (Rwb) of the Wianamatta Group. The Wianamatta Group comprise of shale, carbonaceous claystone, laminate, fine to medium grained lithic sandstone, rare coal and tuff (Penrith I:100K, Geological Series 9030, 1991). The subject site is located approximately 650 metres to the east of Eastern Creek and 2.2 kilometres west of Ropes Creek.

3.2 Landscape analysis and Hydrology and stream order

In order to achieve the required level of analysis specified by NPWS NSW (http://www.environment.nsw.gov.au/nationalparks/) the study area has been stratified according to topographic units. These have been mapped (using MapInfo). This landscape map is shown (Figure 3).

The following topographic categories are used throughout the discussion. These elements were initially used in a study of the Cumberland Plain (JMcD CHM 1997) and are routinely used by JMcD CHM to assess many study areas within the Cumberland Plains. Note, many of the topographic units identified across the Cumberland plain generally are not located with this study area;

•	CB	Creek bank, < 50m to water,	flat land
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• FP Flood Plain, > 50m to water, flat land to slightly sloping

• SW Slope < 200m to water

SW/CB < 50m to water, sloping land (usually tributary headwaters)

• HS Hill Slope > 200m to water, site on slope

• PL Flat land (plain) > 500m to water (mostly alluvial terraces)

CB/LR Rocky cliff or elevated area next to/near water

• LR Low Ridge < 200m to water, <10m elevation above creek

LRT Low Ridge Top >200m from water, <10m elevation above ck

• RT Ridge Top > 200m to water, >10m elevation above creek

· combinations of the above.

3.3 Stream Order

Within the subject site a creek line drains in a north-easterly direction, flowing into Eastern Creek 650 metres east of the study area. This creek line was originally a Ist order stream. It is now a drainage swale which has been artificially formed and aligned between and around greenhouses, bee house and pathways, and flows in an easterly and south-easterly direction and ultimately discharges off the site into a culvert under Wallgrove Road a few hundred metres south of where the Lands' map shows it crossing

Wallgrove Road. At the time of the field survey this drainage swale was dry and intersected by a fence.

McDonald and Mitchell (1994) first used stream order as part of their predictive model for Aboriginal site location. 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 necessary to allow permanent stream flow or the establishment of waterholes with extended longevity (i.e. months to years). On the Cumberland Plain (average annual rainfall between 700 and 900 mm), the critical point where these conditions are met appears to be at the junction of two second or third order streams. This condition is met at the confluence of Reedy and Eastern Creeks nearby. This means that permanent water would have been just a few hundred metres away from the study area. Stream order within the current study area is mapped (Figure 3).

Summary

This analysis shows that the subject land is dominated by hillslope. There was originally only one Ist order stream within the study area, covering a very small portion of the study area along with the associated floodplain around the stream. The tributary stream and floodplain are in the south east corner of the study area while a more major waterway, Eastern Creek, is to the east of the subject land.

3.4 Vegetation

The Cumberland Plain originally contained a complex of woodland and forest adapted to the mostly clayey soils. The vegetation community in the area include trees such as the Grey Box (*Eucalyptus moluccana*), and the Forest Red Gum (*E. tereticornis*). Ironbarks (mainly Red Ironbark or Mugga – *E. sideroxylon*) also survive in stands or in isolation. Blackthorn (*Bursaria spinosa*) and Paperbarks (*Melaleuca spp.*) are representative of the open woodland in the area. The creek lines have Swamp Oaks (*Casuarina glauca*) growing along their banks, depending on the amount of disturbance in the vicinity.

Across the study area the few stands of vegetation comprise mainly an understory of paperbarks and young eucalyptus trees. These stands are no more than sixty-five years old as the 1943 aerial photographs reveal that the study area was completely cleared at that time.

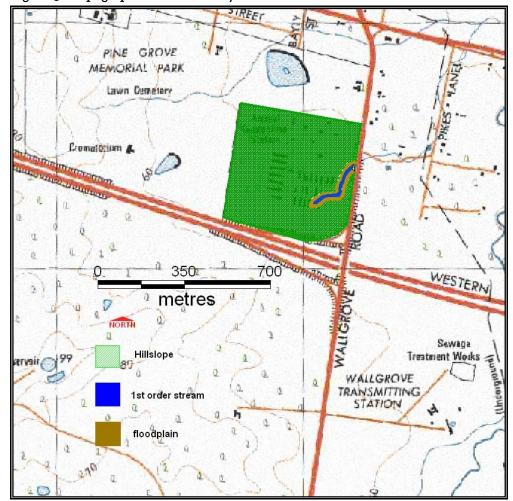


Figure 3: Topographic Units of Study Area.

3.5 Visibility and Survey effectiveness

Much of the study area has been built upon and is highly disturbed. There are five areas of regrowth vegetation which have not been as highly impacted upon by development (Figure 2). These five vegetated areas were surveyed by foot. It was deemed unnecessary to survey the highly disturbed and developed areas within the study area because of the clearly highly disturbed nature of these locations (Figure 2).

During the survey much of the ground surface was covered in grass and leaf litter, limiting the visibility and thus the effectiveness of the survey. The survey strategy involved targeting areas of exposure. Often these areas were exposed due to disturbance such as erosion along fencelines, and the edges of footpaths. The most common areas of exposure were around the bases of trees. In some areas there were small ground surface exposures where the grass was not very dense and leaf litter was minimal.

3.6 Existing Land Use Impact

All of the study area has suffered some previous land use disturbance impacts. These have affected the ground surface and sub-soil, and may have resulted in the damage or destruction of potential Aboriginal sites.

City Plan Heritage (CPH 2009) undertook a European Heritage study of the subject site with a history of the subject site that provides useful information on the land use of the study area. Prior to 1941 the subject site was part of Minchinbury Estate. The only activities associated with the estate were vine growing, dairy farming and fencing (CPH 2009: 20) In 1941 the site was acquired as part of the Wallgrove Army Camp (CPH 2009; 18). It seems the bulk of the camp was built below the subject site on the former Australia's Wonderland site. After WWII the Army Camp was used as a migrant hostel and then for military and training purposes until the 1970's (CPH 2009; 21-23).

A chronology of aerial photographs of the subject site help to quantify the previous land use impacts across the study area.

An aerial photograph from 1943 reveals that most of the subject site had been cleared of vegetation. And the areas which were vegetated then are where buildings currently exist. Buildings can be seen in the northwest corner of the subject site and the back paddock is almost devoid of trees.

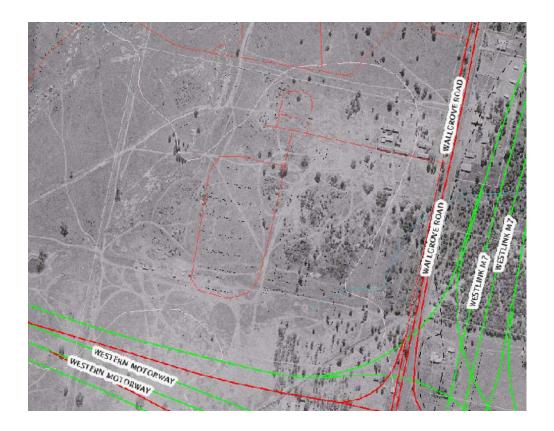


Plate 1: 1943 Aerial photography of study area with digitised roads, supplied by ICPS.

By 1947 the vegetated areas are slightly denser and the buildings in the north east corner are still present. The north east corner of the study area appears very disturbed as the ground is stripped bare from vehicle tracks. There are patches of remnant vegetation on the south east section of the study area and a small section on the west side of the study area.

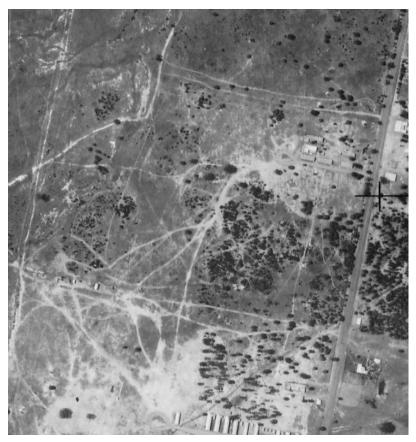


Plate2:1947 B/W Air photos Adastrap, run 32, 58-160 and 58-158

The 1964 aerial photograph of the study area reveals the regrowth of vegetation across much of the study area. The buildings in the NE corner of the study area have either been removed or are obscured by the regrowth.

By 1985 most of the development for the quarantine station had been completed. The western paddock appears highly disturbed and there is disturbance in the south western paddock.



Plate 3: 1964 B/W Air photos Landsphoto NSW 1278 -5122, 5124, 5147 and 5149. Run 7



Plate 4: 1985 1:16k colour air photos taken on 7-4-85 at 8,500ft asl. — run 22 5665-5709; run 23 5500-5545

Table 2 below outlines the land use impacts on the study area through analysis of the aerial photography. The follow abbreviations are used to describe the five vegetated areas that were surveyed:

Stand I: A stand of trees amongst the buildings.

Stand 2: A stand of trees on the eastern boundary.

Stand 3: A stand of trees in the north east corner of the study area.

Back Paddock: Paddock on the west and south boundaries of the study area.

East Paddock: A paddock on the east and south boundaries of the study area.

Table I: Chronology of Land-use impact in surveyed areas from aerial photographs.

Vegetated Area	1943 Aerial Photograph	1947 Aerial Photograph	1964 Aerial Photograph	1985 Aerial Photograph
Stand I	Small amount of vegetation some vehicle tracks	Vegetation regrowth little disturbance from tracks	Vegetation regrowth no increased disturbance	Increased vegetation no increased disturbance but buildings erected around it
Stand 2	Small amount of vegetation	Vegetation regrowth	Vegetation regrowth no increased disturbance	Increased vegetation vehicular track around west and south edge
Stand 3	Cleared and buildings erected	Cleared and buildings erected disturbance from vehicle tracks	Vegetation regrowth no further disturbance	Buildings and road built nearby
Back Paddock	Cleared some vehicle tracks	Increased disturbance from vehicle tracks	Vegetation regrowth no increased disturbance	Many vehicle tracks, two dams, a little vegetation regrowth
East Paddock	Small amount of vegetation	Vegetation regrowth little disturbance from tracks	Vegetation regrowth no increased disturbance	Increased vegetation, vehicular tracks

In keeping with previous studies (JMcD CHM 1997, 1999, 2002a), the following definitions were used:

<u>High disturbance</u> - Severe disturbance to the soil. Buildings, houses,

suburbs, roads, market gardens, poultry farms, BMX

tracks, rubbish tips, formed tracks, dams, drains and

other excavations.

Moderate disturbance - Cleared of trees at some time, cultivated or extensive soil

disturbance probable - caused by machinery or extended

periods of trampling. Much of this area has been used

for small agricultural pursuits such as orchards, and the remainder carries improved pasture.

<u>Low disturbance</u> - Partly cleared and grazed at some time, but apparently never subject to extreme soil disturbance.

This disturbance mapping for the current study area is shown in Figure 4. Calculations of land-use disturbance proportions across the study area were made (Table 3).

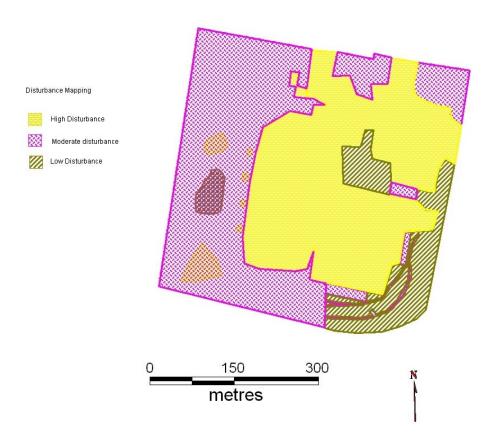
Most of the study area (46%) has suffered high previous land use impact (Table 3, Figure 4). A small proportion (12%) has suffered only low levels of previous disturbance, while the remainder (42%) has had moderate levels of disturbance.

Table 2: Proportion of land-use impact Zones

Disturbance	Area (ha)	%f
Low	2.8	12
Moderate	9.47	42
High	10.49	46
	22.76	100

These areas of existing land-use impact are important in assessing the potential of the land within the study area to contain intact archaeological deposit — and areas which may have conservation potential. This information, combined with an assessment of representative landscapes within the study area, will form the basis for conclusions about the management requirements for cultural landscapes within the study area (see below).

Figure 4: Land use Impact



4. ARCHAEOLOGICAL CONTEXT

Across the Cumberland Plains many Aboriginal Archaeological investigations have been undertaken as localised studies. This has resulted in many Aboriginal archaeological sites being recorded. Despite this, few regional investigations have been undertaken of the Cumberland Plains. McDonald (1997a: 36) conducted an analysis of all sites recorded with NPWS within the Cumberland Plains and found that 666 sites had been recorded. These results found that the most common site type recorded in the region were open sites (89%) followed by scarred trees (2.1%). Isolated finds and combination sites accounted for 3.5% and the remaining 3.6% of sites were shelter sites and grinding grooves.

The above study highlighted the problem of archaeological visibility on the Plain, especially as seen in the disparity between excavated artefact assemblage size, and the surface manifestation of the same site. The study found that:

- 17 out of the 61 excavated sites on the Cumberland Plain had no artefacts present on the surface prior to excavation.
- The ratio of recorded surface to excavated artefacts was 1:25 across the Plain.
- None of the excavated sites could be properly characterised on the basis of their surface evidence alone.

4.1 Predictive model

Ongoing excavations at Rouse Hill and ADI have resulted in the development of a comprehensive predictive model for sites on the Cumberland Plain.

Archaeological evidence is likely to occur in various manifestations across the entire Cumberland Plain. Areas of archaeological potential occur wherever there has been limited prior surface disturbance. The predictive model suggests how the likely nature of sites across the Plain might vary in terms of landscape features. This model was developed for the ADI Site at St Marys but was intended for regional comparison.

It is predicted that the size (density and complexity) of archaeological features will vary according to permanence of water (i.e. ascending stream order), landscape unit and proximity to lithic resources in the following way:

- In the headwaters of upper tributaries (i.e. first order creeks) archaeological evidence will be sparse and represent little more than a background scatter;
- In the middle reaches of minor tributaries (second order creeks) will be archaeological evidence for sparse but focused activity (e.g. one-off camp locations, single episode knapping floors);
- In the lower reaches of tributary creeks (third order creeks) will be archaeological evidence for more frequent occupation. This will include repeated occupation by small groups, knapping floors (perhaps used and reused), and evidence of more concentrated activities;
- On major creeklines such as the lower reaches of Second Ponds and Caddies Creeks (fourth order) will be archaeological evidence for more permanent or repeated occupation. Sites will be complex and may even be stratified;

- © Creek junctions may provide foci for site activity; the size of the confluence (in terms of stream ranking nodes) could be expected to influence the size of the site;
- Ridgetop locations between drainage lines will usually contain limited archaeological evidence although isolated knapping floors or other forms of one-off occupation may be in evidence in such a location;
- Naturally outcropping silcrete will have been exploited and evidence for extraction activities (decortication, testing and limited knapping) would be found in such locations.
- Sites in close proximity to an identified stone source would cover a range of size and cortex characteristics. As one moves away from the resource, the general size of artefacts in the assemblage should decrease, as should the percentage of cortex. The increasing number of new (in particular) silcrete sources has made the testing of the distance decay model (Dallas & Witter 1983) more difficult, and suggests that this model is a poor mechanism for explaining raw material preferences around the Plain.
- Most sites on the Cumberland Plain have been dated to the late Holocene and it had been argued (Kohen 1986) that most date to the last 1,000 years. There is increasing evidence, however, (McDonald 1993, McDonald & Rich 1993a, JMcD CHM 2001a) that dates obtained from shelter sites around the Sydney region (e.g. Attenbrow 1987, McDonald 1994) are comparable to stone tool assemblages on the Plain. It is reasonable to assume that occupation of this area had commenced by c.14,000 years ago (Kohen et al. 1981), and continued until the arrival of white settlers. Most sites, however will date to the last 3,000 years. It is unlikely that very early dates (e.g. 40k yrs, such as have been posited by Nanson et al. 1987) would be expected within the region: recent testing of the Cranebrook Terrace revealed no artefacts below 2m depth, and bioturbation was proposed as the mechanism for these occurring at such depth (Kohen 1997).

On the margins of the shale plain, in the interface between the shale and sandstone geologies, a further element can be added to this model.

Where sandstone features occur (either overhangs or platforms), these may have provided a focus for a number of activities, either camping or art production (for the former) or the production/sharpening of axes (for the latter). Sandstone platforms may also have been used for the production of art (i.e. engravings) although these are very rare on the margins of the Plain.

4.2 Local context

A search of the Aboriginal Heritage Information Management system (AHIMS) found II Aboriginal sites had been recorded close to the study area. One of the sites is a possible Scarred Tree. Two of the sites were located during excavation and the remaining eight sites are surface scatters. It seems most of the surface sites were located due to exposure caused by previous land disturbance.

Table 3: Previously recorded sites near the study area.

Site number/name	Site context	Site content	Site Description
45-5-0436 Eastern Creek W3	Open Site	I white silcrete secondary flake and I red silcrete flaked piece.	Exposed patch of soil disturbed by construction of F4.
45-5-0438 eastern creek W2	Open Site	2 small red silcrete flakes I pink silcrete fake.	Exposed surface on bank of road.
45-5-2648 Eastern Creek PAD 20	Open Site Sub-surface	48 Aboriginal artefacts and 33 non-artefactual lithic fragments (low density scatter).	Sub-surface deposit found in test area 220x40 m. Disturbance from past land use impacts.
45-5-2654	Open Site	2 mudstone flaked artefacts and a block fractured fragment of silcrete.	Highly disturbed by MX bike track.
45-5-2720	Open Site – Sub-surface	17 artefacts recovered from 44 auger pits.	Sub-surface deposits. Average depth of pit 18cm.Highly disturbed area.
45-5-2806	Open site	2 broken quartz pebble manuports.	One manuport on surface of vehicle track the other on eroded clay subsoil.
45-5-2823	Open site	I red silcrete core, I red silcrete flake, 2 red silcrete flaked pieces, I pink silcrete flaked piece.	Located on ground exposure on the crest of a moderately sloping hill.
45-5-2824	Open Site	I broken flake, I small red silcrete piece, split white quartz pebble manuport and a quartz river	4 artefacts located on vehicle track. River pebble found in grass with poor visibility.

		manuport.	
45-5-2830	Open Site	Flaked piece of red	Located in low grass cover.
		silcrete.	
45-5-2849	Open site	Possible scarred tree.	Trees are in a state of decay,
			land disturbance has
			resulted in degradation of
			heritage conservation
			potential of area.
45-5-3261	Open	I tuff adze, I silcrete core,	Area in paddock where
	artefact	3 silcrete flakes, 4 flaked	horses graze, high
	scatter	silcrete fragments.	disturbance caused exposure
			and visibility of site.

JMcD CHM (2002) undertook an archaeological investigation of the SEPP 59 Lands (the former Wonderland site) directly south of the current study area. This included a review of previous investigations undertaken within the study area. This study, combined with the previous studies, resulted in 42 Aboriginal archaeological sites being recorded within the study area. Twenty-two of the sites identified were surface open sites, nineteen were surface isolated relics and one was a scarred tree with an open artefact scatter. A number of areas with Potential Archaeological Deposit were also identified. Most of the sites discovered were located on surface exposure. McDonald notes that such surface findings are indicative of the archaeological evidence present across the land. Given that the Cumberland Plain is an aggrading land surface that buries artefacts over time land use impact assessment is used to determine which lands have the best potential to contain *in situ* artefacts (JMcD CHM 2002:2).

A number of other archaeological investigations have been undertaken within the SEPP 59 Lands (JMcD CHM 2002:19-21). Some of the other archaeological investigations conducted near the study area include:

Brayshaw and Haglund (1996) undertook an archaeological survey for the widening of the M4 motorway. The survey route abutted the southern boundary of the Quarantine Site however no sites were located along that boundary. A total of II3 artefacts were found at 20 locations. The closest sites to the current study area were two sites located at Eastern Creek and one at Minchinbury Hill. One of these sites contained II artefacts located in exposures either side of an artificial drainage line. The other two sites contained one silcrete flake located on disturbed road reserve, and a silcrete core located in a bull dozed area respectively.

An archaeological investigation was undertaken for the Western Sydney Orbital by Mills (1996), Brayshaw and White (1999) and Central West Archaeological & Heritage Services (2001) between Wallgrove Road and Eastern Creek just to the east of the current study area. Two archaeological sites were identified during the survey and two areas of Potential Archaeological Deposit (PAD) were recorded. One site is a highly disturbed low density artefact scatter located on a disused MX motor bike track. The other is a scarred tree. A 25 metre radius protective buffer zone has been identified around the artefact scatter site, and the PADs were identified in areas that have had minimal disturbance.

Navin Officer (2000, 2001) carried out a field survey and sub-surface investigation at the proposed redevelopment of Eastern Creek Waste Management Facility south west of the current study area. The initial survey identified two artefact scatters, six isolated finds and one PAD. The sub-surface investigations were carried out in the area identified as PAD. A total of sixty six Aboriginal stone artefacts were recovered from the excavation. Fifty one of the artefacts were silcrete, II were chert and four were quartz.

AMBS (2005) conducted an archaeological assessment of the Eastern Creek Sewer Carrier Route realignment resulting in the recording of four new archaeological sites and the identification of one potential archaeological deposit (PAD). The three sites were highly disturbed and were assessed as having low scientific significance.

Whilst all of these studies have located archaeological material mostly low density scatters, very little excavation has been undertaken. Officer (2001) conducted test excavations in an area identified as PAD and that had no recorded surface artefacts and located 66 sub-surface artefacts. This data supports the statement that sub-surface artefacts which are not necessarily reflected by surface artefacts found during surveys.

5. FIELDWORK METHODOLOGY

The aims of the fieldwork were to identify and assess any Aboriginal cultural deposits and any areas of Potential Archaeological Deposits in the subject land whilst consulting the relevant Aboriginal communities.

The fieldwork was undertaken on two separate occasions to allow all Aboriginal groups to be involved. On the 16th February 2009 the field team consisted of Sam Higgs

(JMcD CHM) and Phil Kahn (DLALC). On the 17th February 2009 the field team were Sam Higgs and Lydia Sivaraman (JMcD CHM), Leanne Watson (DCAC), Yvonne McMartin (DTAC), Gordon Morton (DACHA), Gordon Workman and Ron Workman (DLO).

Most of the study area had no visibility due to roads, buildings, footpaths, fences, kennels, green houses, stables, cat cages and bee keeping areas. It was deemed unnecessary to examine these areas because of the high level of disturbance here and the fact that they had minimal visibility. The vegetated areas of the study area were surveyed on foot. The field teams targeted areas of exposure and examined these for artefacts. The five main stands of trees (described above) were surveyed. One of these was between the buildings slightly north east of the centre of the study area, one on the east border of the study area, just north of the car park and the other in the north east corner of the study area. The trees in these areas were very similar and appeared to be mostly paperbarks and some young gums. Visibility was very poor with the main areas of exposure being around the bases of trees and along fence lines. Much of the ground was covered in grass and leaf litter with occasional patches of exposure through the grass.

The back paddock on the western site of the study area is a grassed area with various trees, two dams, a water course and a boggy area from the overflow of the larger dam. The paddock is disused and has suffered much previous disturbance. The north section of this paddock has an artificial levy and there is another levy near the larger dam. There is a large patch of charcoal surrounding remnant burnt tree stumps. Patches of imported soil are visible beneath the grass in some areas of exposure. This soil is quite sandy unlike soil typically found in the area. The ground surface is also quite uneven due to the disturbance it has endured over time.

The final survey area was the paddock in the south east of the study area. This area appeared to have had the least disturbance. The land was flat, with a small gully running parallel to the boundary fence on the east side of this paddock. The gully led to a small wetter area with long grass and reeds, just south of the car park. It appears that this may be a remnant temporary creek line. Areas of visibility occurred in exposed areas along fence lines and around trees. The ground surface was covered in leaf litter and grass but there were small patches of exposure throughout the grassed paddock.

Plate 5: East Paddock facing south. The reeds indicate a remnant creek.



In order to identify areas of Potential Archaeological Deposits (PAD), current and historical aerial photographs were used combined with the field survey to identify areas of past and present land use within the study area. This has helped to determine which areas within the study area have suffered minimal ground disturbance (Figure 4).

6. RESULTS

As a result of the field survey six new Aboriginal archaeological sites were recorded (Figure 5). All of these sites were surface stone artefacts. All artefacts were found in areas where there was good visibility due to surface exposure.

Table 4: Recorded archaeological sites within the study area.

Site name	Site type	Topography	Raw Material	Туре	Artefact Dimensions	Land Use impact (Figure 4)
	Open					
Qı	site	HS	Silcrete	Distal Flake	22xI0xI5	L
Qı	ISF	HS	Quartz	Flake	13x10x4	L

				Angular		
Q2	ISF	HS	Silcrete	Fragment	10x12x9	L
Q3	ISF	HS	Silcrete	Flake	30x20x12	M
Q4	ISF	HS	Silcrete	Distal Flake	12x13x7	L
Q5	ISF	HS	Chert	Distal Flake	13x10x5	L
				Angular		
Q6	ISF	HS	Silcrete	Fragment	27x27x23	L

This site is comprised of two stone artefacts: a red silcrete distal flake 22xI0xI5mm and a quartz flake I3xI0x4mm. The two aretfeacts are I0 metres apart. The silcrete flake was located on some exposed ground between a boundary fence and a cement footpath. The exposure had been caused by ground disturbance from the construction of the fence and the footpath. The quartz flake was located on an exposure around the base of a tree.

One red silcrete angular fragment IOxI2x9mm located on disturbed ground between a hurricane fence and foot path.

One red and white mottled silcrete flake 30x20x12mm. Artefact located in an area of exposure around a tree base.

Grey silcrete distal flake 12x13x7mm. The artefact was located in small area of exposure in the grass, close to the possible remnant creek line.

Site Q5 Isolated artefact Grid ref:
3
01086E 62 58217N

Red and brown chert distal flake 13x10x5mm. The artefact was located in small area of exposure in the grass, close to the possible remnant creek line.

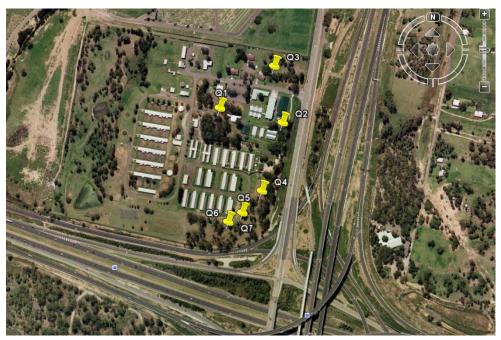


Figure 5: Aerial photo of the study area showing the locations of the recorded surface features (GoogleEarth 2009).



Plate 6: Photo taken from location of Site Q5 facing north-west. In front of the fence the creek line can be seen.

Site Q6 Isolated artefact

Grid ref: ³01056E ⁶²58195N

Red silcrete angular fragment measuring 27 x 27 x 23mm. This artefact was located in small area of exposure in the grass, close to the possible remnant creek line.

During the survey two scarred trees were identified in the east paddock by Gordon Workman (DLO). It is believed that these scars were not culturally formed scars but were formed through natural processes. The scar on Tree I (Plate 7) forms a long thin elongated scar widening at the base of the tree. There is evidence of burning at the top of the scar and on the overgrowth. These characteristics are typical of scars caused by lightning strikes (Long 2005: 36). The tree also appears to be 40-70 years old making it even more unlikely to be an Aboriginal made cultural scar.

Tree 2 appears to be a very young tree: much too young to have a culturally formed scar. The scar is crooked wrapping slightly around the base of the tree, which is also uncharacteristic of a cultural scar.

Air photo interpretation indicates that the study area was devoid of trees in 1947, making all adult trees present younger than 50 years. Neither of these trees was recorded as Aboriginal Scarred trees.





Plate 7: Tree I

Plate 8: Tree 2

Summary

Survey work of the subject site resulted in seven surface artefacts being recorded in six different locations. Silcrete is the most common raw material type. Silcrete occurred at five of the sites either alone or with another raw material.

All but one of the sites was a single surface artefact present: the other had just two artefacts present. While these characteristics might suggest that the sites here are relatively superficial, the low level of visibility generally is counterproductive to artefact discovery. The fact that surface artefacts are found in many of the surface exposures indicates that there is a high likelihood of further artefacts occurring here, in relatively undisturbed condition.

7. DISCUSSION

7.I Archaeological sensitivity

In order to appropriately manage the Aboriginal heritage values in the study area, it needs to be assessed for its archaeological significance and/or potential. This assessment includes the identification of lands with the greatest potential to contain intact archaeological deposit (i.e. only minimally disturbed by previous land use impact) and

those which are locally and regionally threatened by urban development. These two factors affect the assessment of high conservation potential.

An archaeological sensitivity map has been created for this site on the basis of prior land use impacts and the results of the survey. Three zones of archaeological sensitivity are identified for this purpose.

Zone I^I – Good archaeological potential

Zone 2 – Moderate archaeological potential

Zone 3 - Low archaeological potential

These zones are used to assist in the assessment of the sites and landscapes within the study area. The areas of good and moderate archaeological potential can be defined on the basis of land use mapping (Figure 4), whereby the areas defined as having low land use impact can be translated into areas of archaeological sensitivity (Figure 6).

Figure 6: Archaeological Potential Map.



¹ Note that Zone I here is not assessed as worthy of conservation (cf. the ADI Site), as the land has been cleared at least once prior to 1947

Regional Landscape analysis

The current study area is located in western Sydney in an area that is undergoing rapid development. The landscape modifications in this area are having a significant impact on a previously semi-agrarian neighbourhood.

It is important to adequately record the surviving archaeological evidence and place this into a wider regional picture prior to their destruction. A previous regional study (JMcD CHM 2003) identified that certain landscapes across the Cumberland Plain are more "threatened" than other landscapes by existing levels of development. These landscapes are at the greatest risk of being lost completely from the conservation estate. Aboriginal sites located in these landscapes would have intrinsically higher conservation potential, since the number of such sites likely to be remaining in the Cumberland Plain, is low. Hence these are intrinsically more worthy of either conservation — or, where they are not in pristine condition — further scientific investigation through salvage of their assemblages.

The high value landscapes are:

- Shale hillslopes (Minchinbury and to a slightly lesser degree, Ashfield);
- First order tributary creeklines; and,
- Shale ridges and low ridgetops (particularly Minchinbury and Bringelly)

The current study area contains two of these potentially high value landscapes: shale hillslope and the remnants of a Ist order stream. The identification of areas with high conservation values here are based on levels of existing (low) disturbance. Lands which have previously been impacted have low archaeological sensitivity and are considered to present no archaeological constraints (Figure 6).

Analysis of the previous impact conditions indicates that 12% of the current study area has had low land-use impact (Zone I). These areas are considered to have greater archaeological sensitivity.

The areas of sensitivity within the study area (Zone I) include some landscapes which are considered of higher regional conservation potential: hillslopes and first order

creeklines. While the first order stream itself has been significantly modified, there are still parts of the shale hillslope landscape which have higher archaeological potential. While these lands do not warrant conservation (because they have been at least partially cleared in the past) they should form the focus of an archaeological mitigation programme to maximize the information retrieved from this area prior to destruction.

7.2 Site Assessment

The appropriate management of cultural heritage items is usually determined on the basis of their assessed significance as well as the likely impact of the proposed development. Scientific, cultural and public/education significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of a site, place or area are resolved.

Cultural significance

This assessment indicates the importance of a site or feature to the relevant cultural group - in this case the Aboriginal community. Aspects of cultural significance include assessment of sites, items, and landscapes that are traditionally significant or that have contemporary importance to the Aboriginal community. This importance involves both traditional links with specific areas as well as an overall concern by Aboriginal people for their sites generally and the continued protection of these. This type of significance may not be in accord with interpretations made by the archaeologist - a site may have low scientific significance but high Aboriginal significance (or *vice versa*).

Scientific significance

Assessing a site in this context involves placing it into a broader regional framework, as well as assessing the site's individual merits in view of current archaeological discourse. This type of significance relates to the ability of a site to answer current research questions. It is also based on a site's condition (integrity), information potential and representativeness and/or rarity (see above).

Public significance

Sites that have public significance do so because they can educate people about the past. By reducing ignorance about why sites are important to the Aboriginal and scientific community, our human heritage can be protected from ignorant or inadvertent destruction. For a site to have high public significance it should contain easily identifiable and interpretable elements, and be relatively easily accessed.

7.3 Assessment of the Quarantine Station Sites

The cultural significance of the area will be addressed by the Deerubbin Local Aboriginal Land Council (DLALC), Darug Tribal Aboriginal Corporation (DTAC) the Darug Custodial Aboriginal Corporation (DCAC), the Darug Aboriginal Cultural Heritage Assessments (DACHA) and the Darug Land Observation (DLO). Representatives from each of the Aboriginal communities participated in the field survey and all groups have indicated they will write a report on this aspect of significance.

The **public significance** of the sites within the Quarantine Station area is assessed as being generally low on the basis of their poor surface manifestations. Open sites are extremely difficult to appreciate by a lay-public due to the 'invisibility' of the evidence present.

The **scientific** <u>significance</u> of the identified sites cannot be easily assessed on the basis of their surface manifestations. Instead, a ranking of archaeological <u>potential</u> is made, based on the landuse mapping (and archaeological sensitivity) localised disturbance factors and the predictive model. The following assessments are made for all identified surface features within the Quarantine Station study area (Table 6).

Table 5: Summary of assessed significance of identified sites in the Quarantine Station Study Area.

Site name	Site type	Local Topography	Surface Artefacts	Raw Material	Disturbance	Sensitivity Zone
Qı	OS	FP	2	S/Q	L	I
 Q2	ISF	FP	I	S	L	I
Q3	ISF	FP	I	S	M	2
Q4	ISF	FP	I	S	L	I
Q5	ISF	FP	I	С	L	I
Q6	ISF	FP	I	S	L	I

Whilst the artefacts located at each site were in disturbed contexts, the general landscape mapping (Table 6) indicates the there is a good likelihood of intact artefacts being located in the vicinity of sites QI, Q2, Q4, Q5, Q6.

7.4 Assessment of Impacts

At this stage of the planning process it is not clear what the nature of the development impacts will be across the subject land. The recommendations are thus made as 'in principle'. These will need to be further developed when development impacts are better defined.

8. RECOMMENDATIONS

The following recommendations are made on the basis of:

- egal requirements of the National Parks and Wildlife Act NSW 1974 (as amended) whereby it is illegal to damage, deface or destroy an Aboriginal Relic without the prior written consent of the Director-General, Department of Environment and Climate Change, NSW and the fact that this rezoning is being progressed under Part 3A of the Environmental Planning and Assessment Act 1974 (as amended);
- Tribal Aboriginal Corporation, Darug Custodian Aboriginal Corporation,
 Darug Aboriginal Cultural Heritage Assessments and Darug Land Observations;
- the assessed potential of the landscapes and archaeological features identified within the study area; and,

It is recommended that:

- 8. Several small areas are identified as having higher archaeological value (Zone I) although these are not assessed as having overall conservation value. The entire study area should be considered to be developable (on archaeological and Indigenous heritage grounds);
- 9. An Aboriginal Heritage Management Plan should be devised based on the results of this investigation and the views of the Aboriginal groups. This AHMP will identify a meaningful management strategy for Indigenous heritage within the subject land. The AHMP should develop a salvage programme based on the salvage of a target area in the east paddock (zone I and where three of the six sites were identified);

- 10. The development of the AHMP should involve the Aboriginal community and regulators, and the Aboriginal community should be involved in the salvage excavations;
- II. Zones 2 and 3 have low archaeological potential and should be considered as developable, with no requirement for further archaeological investigation in these areas:
- 12. Once the AHMP has been agreed upon and the research methodology approved for a salvage locations, a sign-off from DECC NSW should be sought in accordance with Part 3A development conditions (in the manner of a 'whole of development Section s87/90 Permit' under the usual heritage procedures as defined by the *NPWAct* 1974 as amended).
- 13. One copy each of this report should be sent to:

Mr Frank Vincent Chairperson

Deerubbin LALC

PO BOX V184

MT DRUITT VILLAGE NSW 2770

Ms Sandra Lee

Darug Tribal Aboriginal Corporation

PO Box 441

BLACKTOWN NSW 2148

Ms Leanne Watson

Darug Custodian Aboriginal Corporation

PO Box 36

KELLYVILLE NSW 2155

Mr Gordon Workman

Darug Land Observations

PO Box 571

PLUMPTON NSW 2761

Mr Gordon Morton

Darug Aboriginal Cultural Heritage Assessments

28 Calala St.

MT DRUITT NSW 2770

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

Ms Lou Ewins

Planning and Aboriginal Heritage Section

Metropolitan Region

Department of Environment and Climate Change

PO Box 668 PARRAMATTA, NSW 2150

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Appendix I

Site Card Information





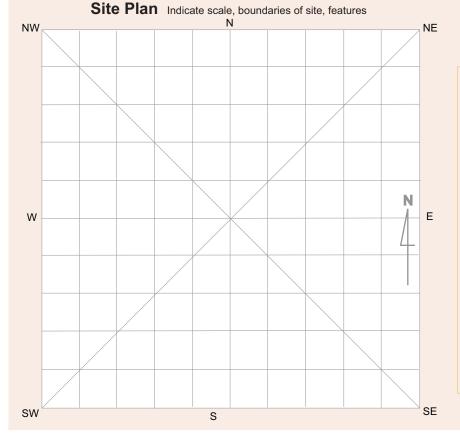
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NPWS Aboriginal Site Recording Form - Site Information

page 2

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Colour photographs	
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Site plans, drawings	
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NPWS Aboriginal Site Recording Form - Site Information page 2 OPEN/CLOSE SITE Open Site **Site Context** Landform **Landform Unit** Tidal Flat Mountainous Stream bank Beach Upper slope Plain Coastal rock platform Cliff Plain Stream channel Rolling hills Dune Crest Ridge Swamp Intertidal flat Flat Tor Terrace Steep hills Undulating plain Lower slope Valley flat Terrace flat Lagoon Tidal Creek Mid slope Levy Slope degrees Vegetation Land use Water 660 Conservation Closed forest Distance to permanent water source metres 113 Grasslands Established urban Distance to temporary water source metres Eastern c r Isolated clumps of trees Farming-intensive Name of nearest permanent water source Open forest Farming-low intensity Name of nearest temporary water Open woodland Forestry **Directions for Relocation** Industrial Scrub Travel west along Western freeway, turn right into Wallgrove Woodland Mining Rd then left into Quarantine Station. Access into Quarantine Cleared Pastoral/grazing Station is only permitted with an authorised guide. from car Revegetated Recreation park follow path east and then south and then east until N/A Semi-rural reaching a stand of trees. Site is located on an exposure Service corridor under one of the trees. Transport corridor Site Location Map Urban expansion ΝE NW N/A **Current Land Tenure** National Park / other Government Public Dept. Private I.D. **Primary report** (I.D. Office Use only) An Assessment of Aboriginal Heritage at 60 Wallgrove Rd, Minchinbury. W

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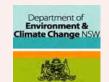
Site Plan Indicate scale, boundaries of site, features

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19. Modified Tree

20. Water Hole





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NPWS Aboriginal Site Recording Form - Site Information page 2 OPEN/CLOSE SITE Open Site **Site Context** Landform **Landform Unit** Mountainous Tidal Flat Upper slope Stream bank Beach Cliff Plain Coastal rock platform Stream channel Plain Rolling hills Dune Crest Ridge Swamp Intertidal flat Flat Tor Terrace Steep hills Undulating plain Lower slope Lagoon Valley flat Terrace flat Tidal Creek Mid slope Levy Slope degrees Vegetation Land use Water 660 Conservation Closed forest Distance to permanent water source metres 227 Grasslands Established urban Distance to temporary water source metres East e r n c r Isolated clumps of trees Farming-intensive Name of nearest permanent water source Open forest Farming-low intensity Name of nearest temporary water Open woodland Forestry **Directions for Relocation** Industrial Scrub Travel west along Western freeway, turn right into Wallgrove Woodland Mining Rd then left into Quarantine Station. Access into Quarantine Cleared Pastoral/grazing Station is only permitted with an authorised guide. As entering Revegetated Recreation Quarantine station turn right onto dead end road. Get out of N/A Semi-rural car and walk to paddock on eastern side. Site is located on

exposure under tree near house boundary fence.

Site Location Map

Current Land Tenure National Park / other Government **Public** Dept.

Service corridor

Transport corridor

Urban expansion

N/A

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N/A	Estimated area of visible site											
	Length of assessed site area											

19. Modified Tree

20. Water Hole

NPWS Aboriginal Site R	Recording Form - Site Interpretation and Community Statem	n ent page 4
Aboriginal Community Interp	pretation and Management Recommendations	
Preliminary Site Assess	sment	
Site Cultural & Scientific Ana	alysis and Preliminary Management Recommendations	
l 	ow archaeological potential and should be considered as developable, with r	no requirement for
further archaeological investig	gation in the area.	
This services should subthe fill	ad in butter Fudances	
This section should only be filled		
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Address		
Phone number	Fax	
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B/W photographs		
Colour photographs		
Slides Acriel photographs		
Aerial photographs Site plans, drawings		
Recording tables		
Other		
Feature inserts-No.		





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Primary Recorder	
Title Surname First Name Initials	
Ms Sivaraman Lydia	
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		OPEN/CLOSE SITE)pe	n Site								
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Lan	ndform	Landform Unit										
	Mountainous	Beach		Tidal Flat		Upper slope		Stream bank				
	Plain	Coastal rock platform		Cliff		Plain		Stream channel				
	Rolling hills	Dune		Crest		Ridge		Swamp				
	Steep hills	Intertidal flat		Flat		Tor		Terrace				
✓	Undulating plain	Lagoon	✓	Lower slope		Valley flat		Terrace flat				
Slo	pe	Tidal Creek		Mid slope		Levy						
	degrees											
Ve	getation	Land use	Wa	iter								
	Closed forest	Conservation	Disf	tance to permane	ent v	vater source	72	metres				
	Grasslands	Established urban	Disf	tance to tempora	ry w	ater source	11	metres				
✓	Isolated clumps of trees	Farming-intensive	Nar	me of nearest per	Eastern c							
	Open forest	Farming-low intensity	Nar	me of nearest ten	npor	ary water						
	Open woodland	Forestry										
	Scrub	✓ Industrial	Directions for Relocation Travel west along Western freeway, turn right into Wallgrove									
	Woodland	Mining	Rd then left into Quarantine Station. Access into Quarantin									
✓	Cleared	Pastoral/grazing				nitted with an auth		<u> </u>				
	Revegetated	Recreation						ly south of carpark.				
	N/A	Semi-rural	walk 50 m along temporary creek line site located on expo									
		Service corridor		near paperbark	tre	e about 10m east	of c	reek line.				
		Transport corridor										
		Urban expansion	NW			Site Location N	<i>l</i> lap		N			
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Site Plan Indicate scale, boundaries of site, features

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	Shelter height						
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Open Site D	imensions (m)						
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	Length of assessed site area						

19. Modified Tree

20. Water Hole

IPWS Aboriginal Site	
boriginal Community Inte	erpretation and Management Recommendations
reliminary Site Asse	ssment
	Analysis and Preliminary Management Recommendations
	inagement Plan should be devised. Once the AHMP has been agreed upon and the research
	a salvage locations, a sign-off from DECC NSW should be sought in accordance with Part 3A
	the manner of a 'whole of development Section s87/90 Permit' under the usual heritage
· · · · · · · · · · · · · · · · · · ·	he NPW Act 1974 as amended).
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nis section should only be	filled in by the Endorsees
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		OPEN/CLOSE SITE	Open Site	
	e Context			
Lan	dform	Landform Unit		
	Mountainous	Beach	Tidal Flat Upper slope Stream bank	
	Plain	Coastal rock platform	Cliff Plain Stream channel	
	Rolling hills	Dune	Crest Ridge Swamp	
	Steep hills	Intertidal flat	Flat Tor Terrace	
✓	Undulating plain	Lagoon	Lower slope Valley flat Terrace flat	
Slo	pe	Tidal Creek	Mid slope Levy	
	degrees			
Ve	getation	Land use	Water	
	Closed forest	Conservation	Distance to permanent water source 700 metres	
	Grasslands	Established urban	Distance to temporary water source 2 metres	
✓	Isolated clumps of trees	Farming-intensive	Name of nearest permanent water source E a s t e r n	C 1
	Open forest	Farming-low intensity	Name of nearest temporary water	
	Open woodland	Forestry		
	Scrub	Industrial	Directions for Relocation Travel west along Western freeway, turn right into Wallgrove	e
	Woodland	Mining	Rd then left into Quarantine Station. Access into Quarantin	_
✓	Cleared	Pastoral/grazing	Station is only permitted with an authorised guide. From	-
	Revegetated	Recreation	Paddock cross fence into paddock directly south of carpark.	-
	N/A	Semi-rural	walk south 140 m along temporary creek line site located or	<u>n</u>
		Service corridor	exposure in grass about 2m east of creek line.	_
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Site Plan Indicate scale, boundaries of site, features

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	Shelter height						
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Open Site D	imensions (m)						
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N/A	Estimated area of visible site						
	Length of assessed site area						

19. Modified Tree

20. Water Hole





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NF	NPWS Aboriginal Site Recording Form - Site Information page 2										
		OPEN/CLOSE SITE)pe	n Site							
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	Mountainous	Beach		Tidal Flat		Upper slope		Stream bank			
	Plain	Coastal rock platform		Cliff		Plain		Stream channel			
	Rolling hills	Dune		Crest		Ridge		Swamp			
	Steep hills	Intertidal flat		Flat		Tor		Terrace			
√	Undulating plain	Lagoon	✓	Lower slope		Valley flat		Terrace flat			
Slo	pe	Tidal Creek		Mid slope		Levy					
	degrees										
Ve	getation L	and use	Wa	ter							
	Closed forest	Conservation	Dist	tance to perman	ent v	vater source	7	metres			
	Grasslands	Established urban	Dist	tance to tempora	ary w	ater source	2	5 metres			
✓	Isolated clumps of trees	Farming-intensive	Nar	me of nearest pe	rmar	nent water source	e E	astern cr			
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	Revegetated	Recreation	Paddock cross fence into paddock directly south of carpark.								
	N/A	Semi-rural	walk south 180 m along temporary creek line site located on								
		Service corridor	exposure in grass about 25m south east of creek line.								
		Transport corridor		<u> </u>							
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Site Plan Indicate scale, boundaries of site, features

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N/A	Estimated area of visible site						
	Length of assessed site area						

19. Modified Tree

20. Water Hole

Appendix 2

Reports from DLALC, DTAC, DCAC, DACHA and DLO $\,$

DARUG LAND OBSERVATIONS



ABN: 87239202455 E-MAIL: gordow51@bigpond.net.au PO BOX: 571 Plumpton. NSW 2761 Phone: 029831 8868 or 0415 663 763



23rd February 2009

Dear Miss Samantha Higgs

Project Officer Archaeologist

RE: 60 Wallgrove Rd Minchinbury

D.L.O did this Aboriginal Heritage walkover with you and miss Lydia Sivaraman on the 17th February 2009 although we couldn't see to much because of the grass we did find some quarts and silcrete with this in mind D.L.O has no objections with any work to be carried out on this site. But D.L.O wants to be involved in any and all works so to protect all artefacts found on this site.

With thanks

Uncle Gordon Workman Darug Elder

Sites Officer



5/271 Beames Avenue PO Box 3184 Mt Druitt Village NSW 2770 Australia

Ph: (02) 9832 2457 Fax: (02) 9832 2496

Email: Staff@Deerubbin.org.au Web: http://www.deerubbin.org.au

Afteron Limited C/- ICPS PO Box R1795 ROYAL EXCHANGE NSW 1225

Our Reference: 1987

23 March 2009

Subject: Protection of Aboriginal Cultural Heritage 60 Wallgrove Road Minchinbury

Attention: Philip Drew,

A representative of the Deerubbin Local Aboriginal Land Council (Philip Khan) inspected 60 Wallgrove Road, Minchinbury on 16 February 2009. An Aboriginal cultural heritage assessment was undertaken to evaluate the likely impact the proposed development has on the cultural heritage of the land. Consulting archaeologist Samantha Higgs of Jo McDonald Cultural Heritage Management Pty Ltd carried out a scientific survey at the same time.

Our representative reports that, no Aboriginal cultural material (in the form of stone artefacts, for example) were found.

Deerubbin Local Aboriginal Land Council therefore has no objection to the proposed development, however, prior to any construction or activity that may disturb the top soil you shall arrange with Deerubbin local Aboriginal Land Council for our representative to be on site to monitor such works.

Yours Faithfully,

Chief Executive Officer)

c.c. General Manager, Blacktown City Council

c.c. Karl Brown, A/Manager – Planning & Aboriginal Heritage Section, Dept. of Environment & Climate Change

c.c. Samantha Higgs, Archaeologist - Jo McDonald Cultural Heritage Management Pty Ltd

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DARUG TRIBAL ABORIGINAL CORPORATION

PO Box 441

Blacktown, NSW, 2148

PH: (02) 9622 4081

Mobile 0431 343 021

Email: darug_tribal@live.com.au

ABN: 77 184 151 969 ICN: 2734

Thursday, 9 April 2009

Dear Lydia Sivaraman

Cultural Heritage Management Pty Ltd

Archaeologist

RE: Assessment of Aboriginal Heritage: At 60 Wallgrove Road, Minchinbury, NSW

As water was one of the main requirements of life these creek areas have a very high connection to our past ancestors and could have been a meeting and hunting place for our people and a place where the Elders would train the youth of our clans about their Heritage and lore's and how to make weapons. These sites must be researched and recorded for their traditional and historical values for our community and also for the wider community and we find these projects allow us to look for more evidence of our past ancestors for our members and Elders.

We agree with all the recommendations put forward and would like to see further investigation in zone ${\bf 1}$

And on its completion would support the s87/90 permit application.

Hugs & Smiles

Sandra Lee

Secretary

Darug Tribal Aboriginal Corporation

DARUG

THE TRADITIONAL CUSTODIANS OF DARUG LAND

www.darug.org.au

DARUG CUSTODIAN ABORIGINAL CORPÓRATION

PO BOX 81 WINDSOR 2756 PH: 45775181 FAX: 45775098 MOB: 0415770163 ABN: 81935722930 mulgokiwig/pol.com

20th June 2009.

SUBJECT: Lot 60 Wallgrove Road, Minchinbury.

To Whom It May Concern:

The Darug Custodian Aboriginal Corporation attended Lot 60 Wallgrove Road, Minchinbury to assess the area for Darug Aboriginal Cultural Heritage.

We participated in a walkover of the area that is predominately used as a quarantine facility. There were materials of Darug Cultural Heritage found during the assessment in the areas with low disturbance to the natural soil profiles.

This area has Darug sites and prior to the land being developed would have been an area used in the past by the Darug people, this has been shown in the areas around the study area, with evidence of Darug use being found in close proximety to the study area during works and developments in previous years. Darug people have lived in this area for thousands of years and continue to reside in this area today, the stories we have been taught by our elders always speak of this area as having continued occupation.

We have read the report prepared by JoMcDonald Cultural Heritage Management and we support the findings and recommendations within this report. Our group recommend that all materials retrieved during salvage should be reburied after analysis back on site in a recorded place. We would need to be consulted with the AHMP. Our group also recommend that site officers from our group participate in all salvage works.

Please contact us with any further enquiries on 45775181 or 0415770163.

Regards,

Leanne Watson