ABORIGINAL ARCHAEOLOGICAL ASSESSMENT AND MANAGEMENT PLAN

PROPOSED INDUSTRIAL/COMMERCIAL DEVELOPMENT FORMER HOXTON PARK AIRPORT SITE HOXTON PARK, NSW

Mary Dallas Consulting Archaeologists

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REPORT TO THE MIRVAC GROUP

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1.0 Project Summary

1.1 Introduction and Site Identification

This report has been prepared for the Mirvac Group by MDCA [Mary Dallas Consulting Archaeologists]. It presents the results of an Aboriginal archaeological assessment of a portion of the former Hoxton Park Airport site, located 7km northwest of Liverpool in southern Sydney (**Figure 1**). The study has been commissioned by the Mirvac Group to inform planning for a proposed industrial and commercial development of a portion of the former airport site.

The study area is approximately 55 hectares in size and is bounded to the east by the corridor of Hinchinbrook Creek, to the south by Cowpasture Road, to the west by the M7 Motorway and the north by cleared paddocks and the northern portion of the former Hoxton Park Airport Site (**Figure 2**).

1.2 Reason for the Current Study

The Mirvac Group development proposal has been determined to be a 'major project' to be assessed and determined under Part 3A of the Environmental Planning & Assessment Act, 1979 (the EP&A Act). The current Aboriginal archaeological assessment forms part of the Environmental Assessment to accompany a Concept Plan and concurrent Project Application for the proposed development. The proposed development layout is shown on **Figure 3 and 4.**

The main components of the proposal are two warehouse buildings, which will be occupied by Big W and Dick Smith Electronics, and associated infrastructure including access road, sewer and car parks. A road linking the M7 Motorway and the Cowpasture Road is proposed inclusive of a bridge across Hinchinbrook Creek. A detention basin and associated spillway is to be constructed in the north and northwestern portion of the site. There may also be additional drainage works, such as tail outs within the Hinchinbrook Creek corridor in the event the existing drains prove insufficient.

Several archaeological studies have previously been undertaken of part or all of the former Hoxton Park Airport site (as reviewed below), however these have contained inadequate assessment of subsurface archaeological potential to allow the formulation of appropriate Aboriginal archaeological management recommendations in relation to the current proposal. The current study was therefore commissioned to provide an updated assessment of this potential, specific management recommendations for known and potential Aboriginal archaeological remains in relation to the current proposal, and to provide sufficient information to support any further Aboriginal archaeological works relating to these remains.

1.3 Project Scope and Objectives

The objectives of the current study have been to provide an Aboriginal archaeological survey and assessment of the study area according to the directives outlined below.

1.3.1 Aboriginal Community Consultation

- To continue consultation with the Gandangara Local Aboriginal Land Council and other Aboriginal stakeholder groups as identified during previous studies[1].
- To undertake public and direct notification as per current DRAFT DECCW Part 3A Assessment Guidelines (DEC 2005) to identify other potential Aboriginal stakeholders in relation to the current proposal.
- To involve the Gandangara Local Aboriginal Land Council and other identified Aboriginal stakeholders in a site inspection to discuss possible management recommendations.
- To incorporate into the formulation of the Aboriginal Archaeological Management Plan the Aboriginal cultural views, concerns and recommendations provided by the aforementioned Aboriginal stakeholder groups as required.

1.3.2 Background Research

- To review previous assessments and site recordings within the former airport site.
- To consider any additional archaeological or geotechnical information available since the completion of these previous studies.
- To review historical land use information for the former airport site.
- To research the location, context and nature of previously recorded Aboriginal sites within the study area and areas immediately surrounding the study area and the nature of Aboriginal cultural and historical connections in the area.

1.3.3 Site Inspection

- To inspect the site to relocate recorded Aboriginal sites, provide an updated assessment of their condition and associated subsurface archaeological potential (if any).
- To provide an assessment of the potential for undetected sites to occur within the airport site.

1.3.4 Report

- To prepare a report and Aboriginal Archaeological Management Plan for the current proposal in relation to known and potential Aboriginal archaeological remains within the study area that meets the requirements of current DRAFT DECCW Part 3A project

[1] For reasons not clear to MDCA, the Gandangara LALC was unable to participate in the previous (Heritage Concepts 2006) study and requested that the Deerubbin LALC provide representation on that project. This arrangement no longer applies. The Gandangara LALC is involved in the current project and the Deerubbin LALC does not wish to have further involvement in the project, as it is outside of their administrative boundaries (Pers. comm Steve Randall, Deerubbin LALC Aboriginal Heritage Officer, October 2009).

guidelines (DEC 2005) and the more detailed DECCW ***Draft*** *Aboriginal Cultural Heritage Standards & Guidelines Kit*[2] upon which they are based.

- To prepare best practice methodology for any proposed further Aboriginal heritage management actions resulting from the current study.

1.4 Controls for the Protection of Aboriginal Heritage in NSW

Two principal pieces of legislation provide automatic statutory protection for Aboriginal heritage and the requirements for its management in New South Wales. These are the *National Parks and Wildlife Act* (1974) and the *Environmental Planning and Assessment Act* (1979). The implications of these statutory controls within the context of the current development proposal are outlined below.

National Parks & Wildlife Act (1974)

The *National Parks & Wildlife Act* (1974), administered by the *Department of Environment, Climate Change & Water* (DECCW[3]), provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) under Section 90 of the Act, and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community) under Section 84. Aboriginal objects are afforded automatic statutory protection in NSW whereby it is an offence to:

> *'damage, deface or destroy Aboriginal objects without the prior consent of the Director-General of the National Parks and Wildlife Service' (*now the DECCW*).*

The Act defines an Aboriginal 'object' as:

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

The protection provided to Aboriginal objects applies irrespective of the level of their significance or issues of land tenure. However, areas are only gazetted as Aboriginal Places if the Minister is satisfied that sufficient evidence exists to demonstrate that the location was and/or is, of special significance to Aboriginal culture.

The DECCW has issued draft guidelines outlining the preferred structure for archaeological investigations (NPWS 1997b) and reporting (NPWS 1997c). It has also released interim

[2] DRAFT NPWS 1997a. Some components of this kit, such as the "Guidelines for Archaeological Survey Reporting" are still in draft form and have not been finalised. Other sections such as the "Standards Manual for Archaeological Practice in Aboriginal Heritage Management" were intended as updatable guides though no supplement has been provided since the original edition in 1997. These documents are assumed therefore to be continuing valid expressions of best archaeological practice according to the DECCW.

[3] Originally known as the National Parks & Wildlife Service and in recent years as the Department of Environment and Conservation and Department of Environment and Climate Change.

guidelines for s.87 and s.90 permit applicants under the NPW Act (DEC 2004)[4]. These interim guidelines stipulate the process for seeking the involvement and response of the Aboriginal community to any proposed impacts to Aboriginal sites under a s.87 or s.90 permit. This process requires placing a public advertisement to seek expressions of interest in the project (or more precisely the s. 87 or s.90 permit to be sought) as well as directly notifying local Aboriginal land councils and government agencies dealing with Aboriginal communities in the area. A minimum 10 working day period is allowed for registrations of interest. Registration provides a party with a right to review and comment on permit application documentation. It explicitly does not provide an automatic right for involvement in archaeological survey or other fieldwork.

Environmental Planning & Assessment Act (1979)

In contrast with the NPW Act, the EP&A Act is designed more specifically to cater for heritage issues within the context of new development projects and is closely linked with the process of preparing environmental impact studies. This act has three main parts of direct relevance to Aboriginal cultural heritage. Namely, Part III which governs the preparation of planning instruments, Part IV which relates to development assessment process for local government (consent) authorities and Part V which relates to activity approvals by governing (determining) authorities.

Recent amendments provide for development projects to be granted 'Major Project' status under a number of potential criteria, which allows them to be assessed directly by the NSW Department of Planning under Part 3A (Section 75C) of the act. Under Section 75U, approvals under s.87 and s.90 of the National Parks & Wildlife Act 1974 which would usually be sought for archaeological investigations and/or impacts to Aboriginal objects, are not required for projects approved for assessment under Part 3A of the EP&A Act.

The DECCW has produced draft guidelines for the Department of Planning in relation to projects with an Aboriginal heritage component to be assessed under Part 3A of the Act (DEC 2005). These guidelines outline the required steps in the Aboriginal cultural heritage impact assessment process, drawing on previous policy and procedure documents (NPWS 1997a).

These draft guidelines also contain a requirement to undertake Aboriginal community consultation/public notification as per the DECCW 2004 interim Aboriginal community consultation guidelines described above (DEC 2004). It is noted that these guidelines are intended to apply specifically to the National Parks & Wildlife Act Part 6 Approvals which are not required under Part 3A of the Environmental Planning & Assessment Act, and should therefore be considered unnecessary (as the NPWS 1997 Draft policy manual already discusses Aboriginal consultation requirements). However in recent projects the Department of Planning has required that this public notification process be undertaken. The public notification process and other required consultation processes was undertaken for the current project

[4] These guidelines, themselves interim, have been in the process of review since 2008 and Aboriginal communities and applicants are still awaiting a finalised process to be determined.

Implications of these Requirements

Damage, destruction or removal of any Aboriginal 'places' or 'objects' is only permitted where a Permit or Consent has been issued by the Director-General of the DECCW according to Sections 87 and 90 of the *NSW National Parks & Wildlife Act 1974* (as amended). Although these permits are not required for projects assessed under Part 3A of the EP&A Act, the same process of archaeological investigation, documentation and Aboriginal community consultation as for projects requiring NPW Act 1974 Section 87 or 90 consents is required.

Best practice advocates that development impact to documented and/or potential sites of Aboriginal cultural heritage be avoided where practicable and/or mitigated at the minimum, and that all decisions made for either course of action be made in consultation with Aboriginal stakeholders.

1.5 Aboriginal Community Consultation

The study area falls within the administrative boundaries of the Gandangara Local Aboriginal Land Council (GLALC) who have a statutory responsibility "to promote the protection of Aboriginal culture and the heritage of Aboriginal persons"[5] within their boundaries. In addition descendents of Darug language speaking Aboriginal people of the western Sydney area are represented primarily by the Darug Tribal Aboriginal Corporation (DTAC) and the Darug Custodians Aboriginal Corporation (DCAC)[6]. These organisations were involved in the previous (Heritage Concepts 2006) Aboriginal heritage assessment of the Hoxton Park Airport site[7]. Since that project, one of the representatives involved from the DTAC has left that organisation and formed Darug Aboriginal Cultural Heritage Assessments (DACHA) and so for continuity and consistency, the DACHA were also involved in the current project.

The GLALC, DTAC, DCAC and DACHA were registered as Aboriginal stakeholder groups for the current study and involved throughout the study. Initially the groups were contacted by telephone by MDCA (on 13/11/09 and 16/11/09) to introduce the project and invite them to participate in an archaeological survey of the study area. This survey was undertaken on Thursday 26 November 2009 and attended by Roy Murray (GLALC), Leanne Watson (DCAC) and Gordon Morton (DACHA). The DTAC had confirmed their availability but did not attend and were unable to field a representative when contacted on the day. It is noted however that the DTAC has been involved in previous surveys of the study area as discussed in **Section 3**.

Following the survey a discussion was held onsite about possible management of the known and potential Aboriginal heritage of the study area. Subsequently the four stakeholder groups were sent (14/1/10) a summary of the assessment and a draft Aboriginal Archaeological Management Plan for their review and comment (with written responses due by 29/1/10). In addition they were asked to discuss or provide any Aboriginal cultural or historical information which they felt pertinent to the current study and proposal. MDCA contacted the groups by telephone in the week starting 18/1/10 to discuss this document and to answer any questions

[5] Aboriginal Land Rights Act 1983, s52(1)(m).

[6] See Everett 2006 for more detailed discussion of the origin and function of these organisations.

[7] It is noted that, the GLALC was represented by the Deerubbin LALC on that project.

or concerns the groups may have had with respect to the proposal and the proposed management recommendations.

The Gandandara LALC, DTAC, DACHA and DCAC have provided written endorsement of the management recommendations. [see **Appendix 2**]

In addition to the above, public and direct notification was undertaken in full compliance with the DECCW interim guidelines for community consultation (see **Appendix 2**). To this end a public notice was placed in the classified section of the Liverpool Leader on 9/12/09 calling for expressions of interest from Aboriginal people or organisations in relation to the project. A deadline of 23 December 2009 was set for written responses. None were received. Therefore the GLALC, DTAC, DCAC and DACHA are the Registered Aboriginal Stakeholders for this project.

Direct notification letters were also sent to the Office of the Registrar of Aboriginal Corporations (DAA), NTSCorp[8], The DECCW and Liverpool City Council. The letter discussed the involvement of the four aforementioned Aboriginal stakeholder groups and sought the details of any additional Aboriginal individuals or organisations of whom these agencies were aware that have specific traditional or historical links to the study area. The agencies were asked to provide current contact details and a brief description of the nature of connection of any such organisations or individuals to the study area (ie Registered Native Title Claimant, Registered Aboriginal Owner, historical connection), or to explicitly state if any of these details were not known to the agency responding. A deadline of 23 December 2009 was set for written responses.

The only response received was from the DECCW, who provided a list of nine organisations "known to DECCW that may have an interest in the project" (**Appendix 2**). Contact details were provided but, despite the request of MDCA, no details were provided of the nature of the connection of each organisation to the study area. The list included two local Aboriginal land councils whose boundaries are outside of the current study area. As noted above, the Deerubbin LALC had already confirmed that they wished to have no involvement in the project as it was outside of their administrative boundaries. Similarly, Tharawal LALC CEO Ms Robyn Straub was asked about the possible interest of the Tharawal LALC in the project and responded by email (14/1/10) stating "I believe Hoxton Park Airport is outside our boundaries, so we would have no interest in this area". Similarly, Glenda Chalker of the Cubbitch Barta Native Title Claimants Aboriginal Corporation responded in a telephone enquiry of 14/1/10 that the Hoxton Park Airport site was outside of her organisation's area of interest and she did not wish to participate in the project.

The remaining two organisations on the list, Yarrawalk and Darug Land Observations DLO] were provided with a copy of the summary assessment and draft Aboriginal Archaeological Management Plan (sent 14/1/10) and afforded the opportunity to provide written comment on these documents by 29/1/10. In addition they were asked to provide or discuss any Aboriginal cultural or historical information they felt was pertinent to the current study and proposal. One response, from Yarrawalk [trading as Tocomwall] was received on 3.2.10 which endorsed the

[8] Formerly NSW Native Title Services.

AAMP but provided no cultural or historical information directly relating to the specific area. [see **Appendix 2**].

1.6 Authorship

This report has been prepared by Mary Dallas and Paul Irish.

1.7 Summary of Conclusions and Aboriginal Archaeological Management Plan

An Aboriginal heritage management strategy, inclusive of archaeological test excavation and artefact collection is detailed in the Aboriginal Archaeological Management Plan [see Section 5.5.]

It is the conclusion of this study that the Aboriginal archaeological issues relating to the former Hoxton Park Airport site are confined to the areas in the north west of the site proposed for a detention basin and to the area in the east of the site proposed for a road/bridge across Hinchinbrook Creek. Recommended archaeological management actions for these areas should precede any constructions works specific to these areas.

There are no archaeological issues or possible constraints within the area proposed for industrial subdivision and its associated infrastructure across the central portion of the site. There are no further Aboriginal archaeological requirements within this area. Development in the proposed industrial area can commence prior to the recommended archaeological management actions for the detention basin or the road/bridge crossing.

The Registered Aboriginal Stakeholder groups have fully endorsed the Aboriginal Archaeological Management Plan [see **Appendix 2**].

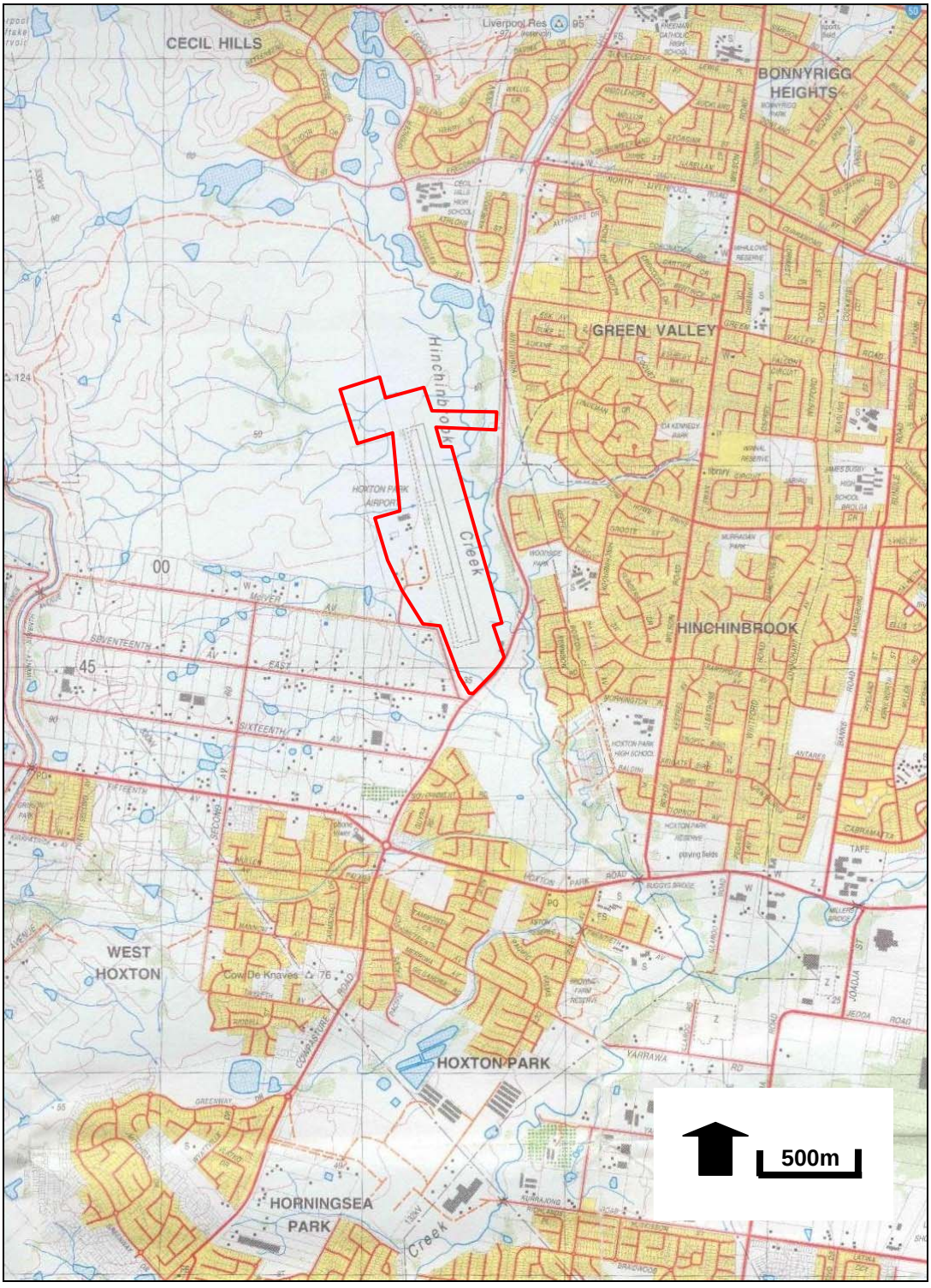

Figure 1. The study area in its local context, about 6km west north west of Liverpool. [Adapted from Liverpool 1:25,000 topographic map].

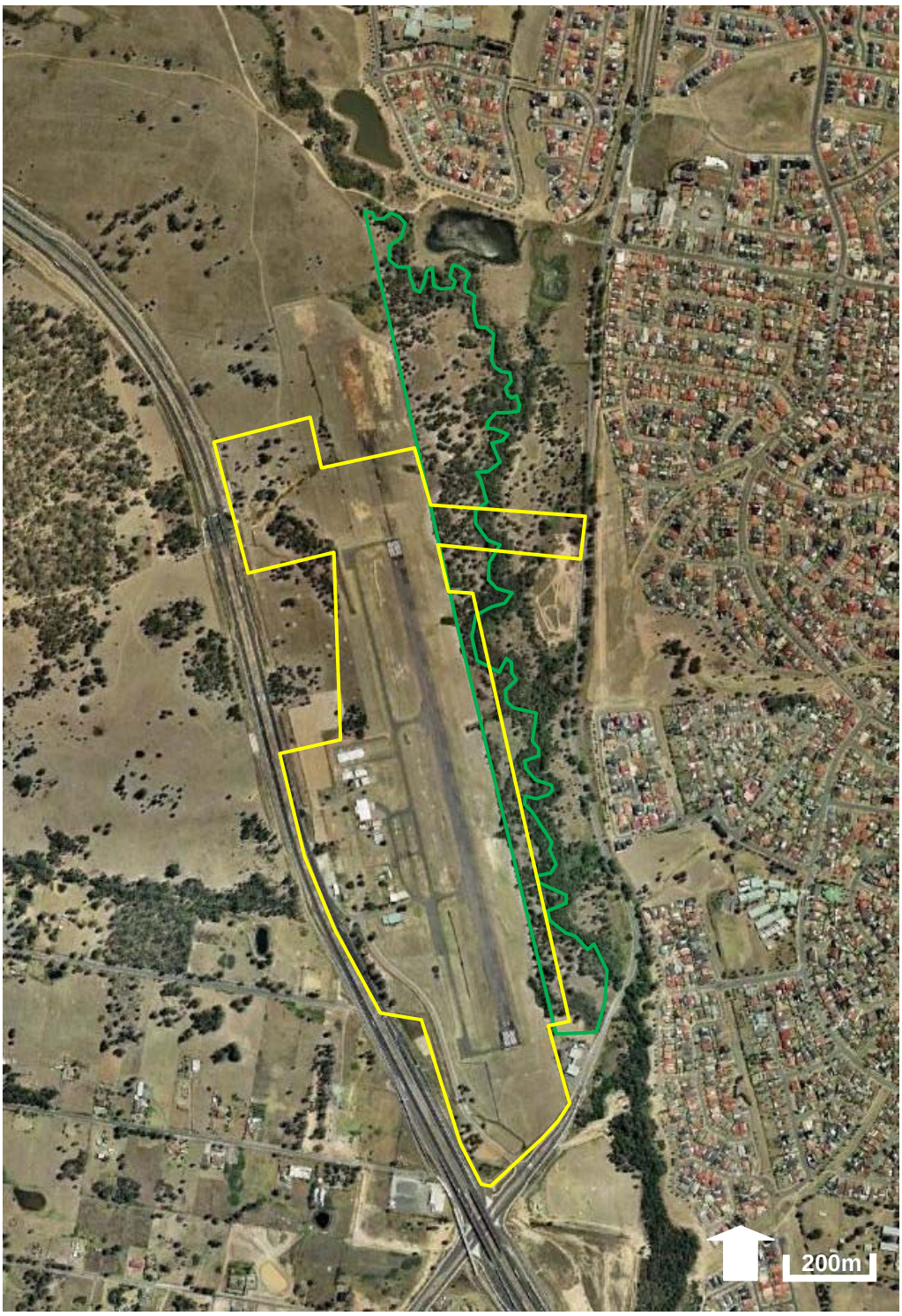

Figure 2. Detail of the study area (yellow outline). The green outlined area represents relatively undisturbed lands along Hinchinbrook Creek within the former airport site but east of the main runway area.

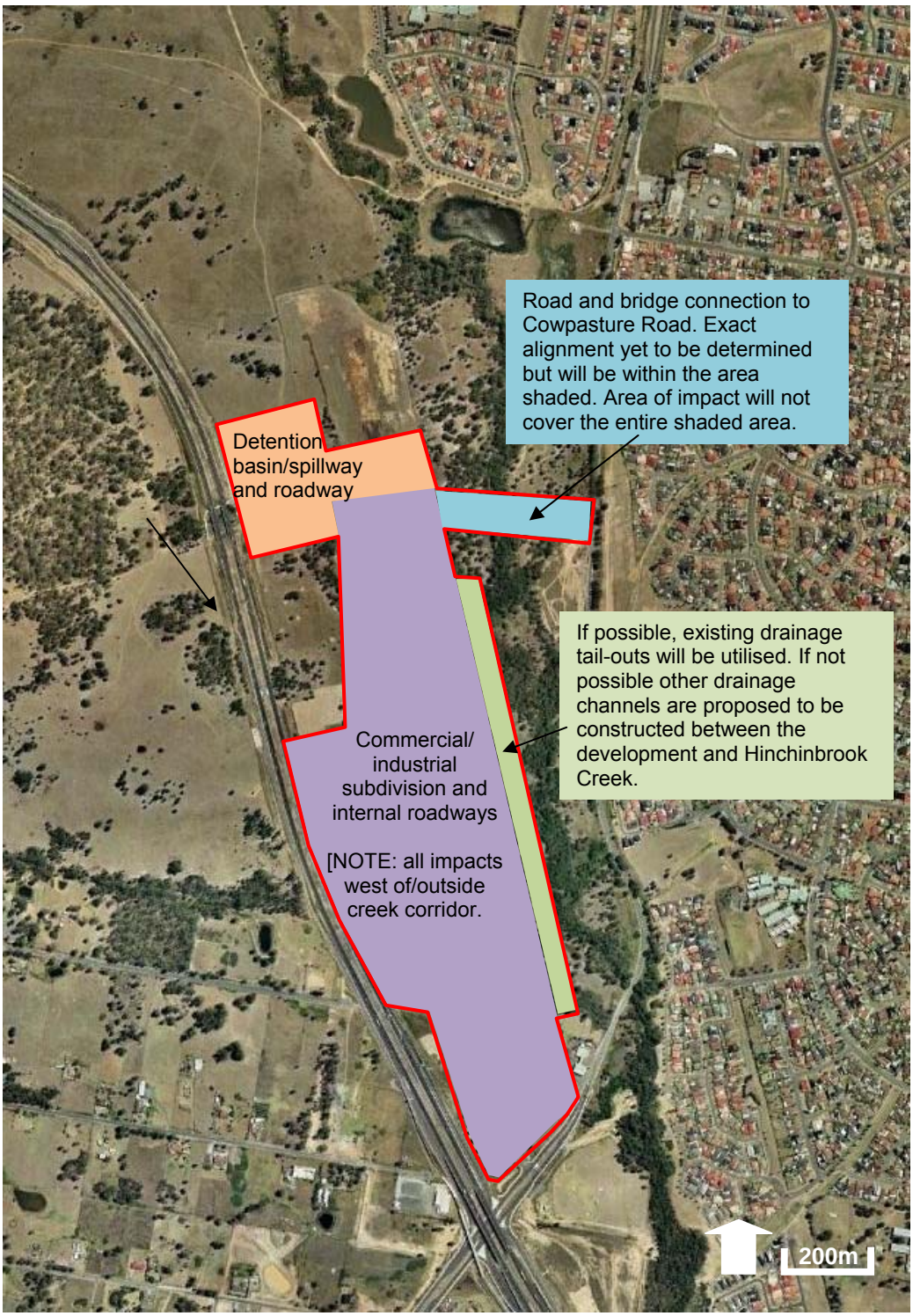

Figure 3. Location proposed development elements (shaded) within the study area.

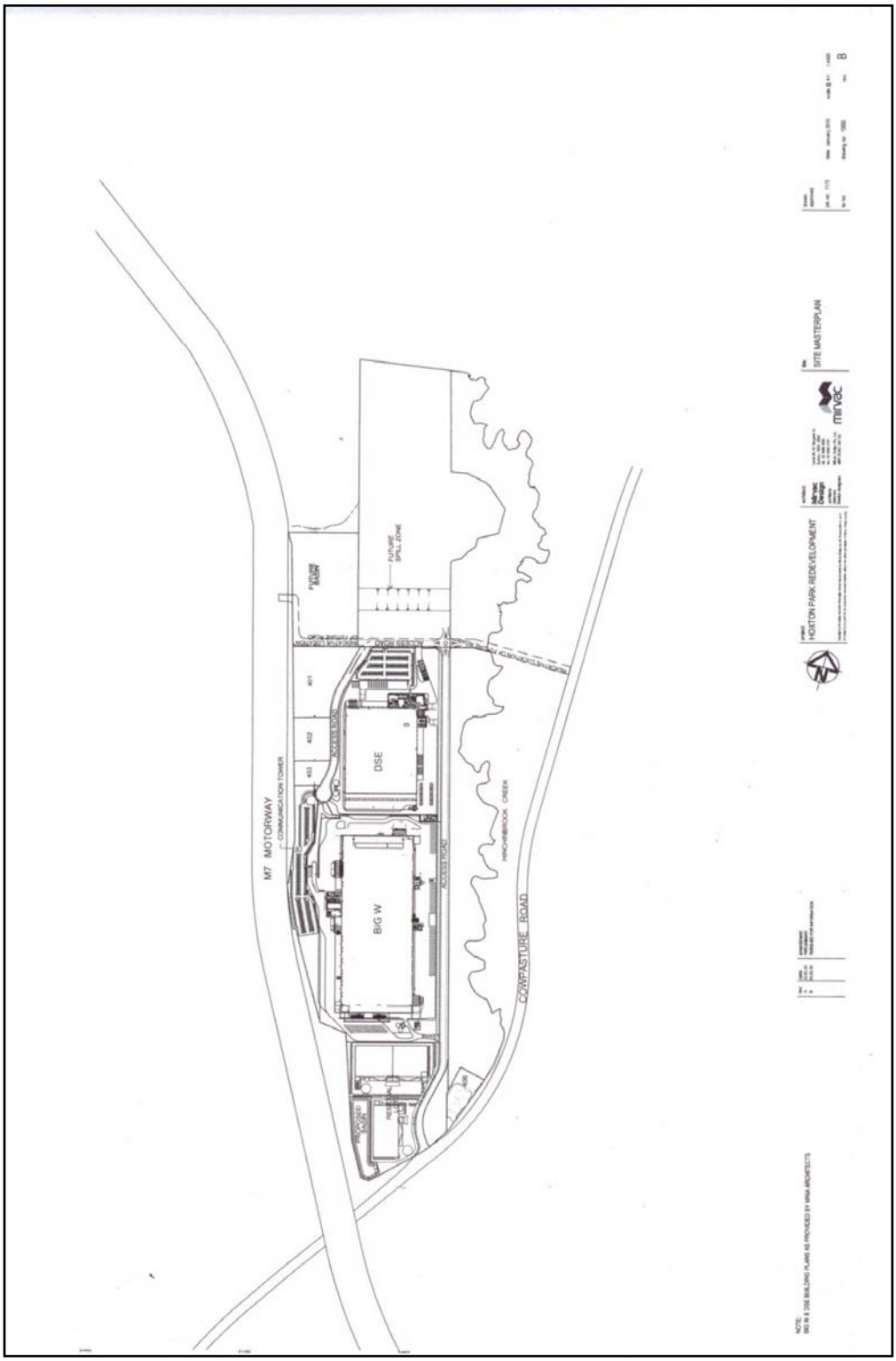

Figure 4. Preliminary concept plan showing main elements of the current proposal [Source: Mirvac Group].

2.0 Environmental & Historical Context

An understanding of the environmental context of an area is crucial to determining how it may have been used by Aboriginal people and what kinds of evidence of that use it may contain. Furthermore, an appreciation of the ways in which this environment has been altered by natural processes and recent European land use is crucial to understanding the degree to which evidence of Aboriginal occupation is likely to have been modified, disturbed or destroyed. It is also important to consider the ongoing links which Aboriginal people may have had with the study area and surrounds to be able to fully assess the significance of the area.

2.1 Geology, Soils and Hydrology

The study area is located on what was originally gently sloping land west of the main channel of Hinchinbrook Creek but has been significantly modified during and after the creation of the airstrip (see below). The Hinchinbrook Creek catchment includes undulating lands for several kilometres north, west and east of the study area, flowing south to a confluence with Cabramatta Creek about 2km southeast of the study area, and eventually draining into the Georges River at Warwick Farm, northeast of Liverpool. Two unnamed minor tributaries of Hinchinbrook Creek flow east across the study area, draining the more elevated ground to the west. These have been modified and channelised.

The area contains Pleistocene age alluvial sediments, ultimately underlain by Bringelly Shale bedrock of the Wianamatta Group (Clark & Jones 1991). The precise extent and age of the these alluvial deposits (and hence their implications for the survival of evidence Aboriginal occupation) is poorly documented in this area.

These sediments have weathered to produce soils of the South Creek soil landscape consisting generally of around 30-50cm of loose sandy loam A1 horizon on 15cm of clay loam A2 horizon on clay subsoil (Bannerman & Hazelton 1990:68-71). The westernmost and northwestern margins of the study area may also contain residual soils of the Blacktown Soil Landscape, comprising around 30cm of friable brownish black loam A1 horizon on 10-30cm of hardsetting brown clay loam A2 horizon on clay subsoil (Bannerman & Hazelton 1990:28-31).

Although reported in an earlier archaeological assessment of the Airport site (Heritage Concepts 2006:8), soils of the Luddenham soil landscape do not appear to be present within the study area on the basis of current mapping.

Recent geotechnical testing across the airport portion of the study area (ie excluding the less impacted fenced Hinchinbrook Creek corridor) has determined the typical profile of this area to be fill materials, including introduced topsoils, overlying stiff moist silty clay on siltstone [Douglas and Partners 2010]. (see **Figure 12-14**).

2.2 Vegetation and Resources

The study area would largely have been characterised by eucalypt woodland with dominant tree species varying with topography but probably including Spotted Gum, whilst creeklines

may have been characterised by Cabbage Gum and Rough Barked Apple and possibly patches of Swamp Oak [casuarina] (Benson & Howell 1995:80-82).

The local vegetation is likely to have provided Aboriginal people in the area with raw materials such as bark for shelters, canoes, containers and fishing line, wood for fires and containers as well as a variety of medicinal and food plants. This vegetation would also have fostered a variety of land mammals, reptiles and birds which may have been eaten by Aboriginal people. Similarly, the close proximity of the creek and the larger creeks and rivers nearby would have made fish, and possibly shellfish and crustaceans available.

Our understanding of the range of animal and plant foods consumed by Aboriginal people, the circumstances and timing of their use and cultural restrictions around food and totemic animals is quite limited for the Sydney region. A recent detailed description of the available archaeological and historical evidence provides valuable information (Attenbrow 2002), although it is not currently clear how uniform food gathering practices were across the Sydney region. Consequently although it can be stated that a variety of plant and animal foods and raw materials would have been available within close proximity to the study area, it is not possible to infer gathering strategies or movement of people in relation to these.

Finally, fresh drinking water would have been permanently available from Hinchinbrook Creek, and possibly intermittently from the minor creeks which once flowed into it across the study area.

2.3 Historical Land Use

The archaeological evidence of the use of the area by Aboriginal people is reviewed in **Section 3**. This section is concerned with more recent non-Aboriginal uses of the local environment which have served to disturb, destroy (and sometimes protect) evidence of Aboriginal occupation. This is especially relevant within the current study area, which has undergone major modifications in association with its use as an airstrip.

The study area formed part of early land grants in the area to Barron Field and others and prior to the construction of the airstrip during World War II had been extensively cleared. This is demonstrated by aerial photography from 1930 showing all but the line of Hinchinbrook Creek and its tributaries and a stand of timber at the southern end of the site devoid of timber (**Figure 5**). Also of note at this time is the original course of the northernmost tributary of Hinchinbrook Creek as indicated in **Figure 5**, and the line of Cowpasture Road through what is now the southern end of the airport site.

Extensive modifications to the area occurred in the early 1940s with the construction of the airstrip for defence purposes amid World War II. As can be seen in **Figure 6**, extensive earthworks were undertaken to excavate, level and raise a large area to construct a bitumen runway and taxi ways. A number of drainage channels were dug and gravel paths led to aircraft 'hides' in adjacent forested areas to protect planes in the event of bomb attacks (Tropman & Tropman 2005). The line of Cowpasture Road was also deviated south to avoid the airstrip at this time and most of the southern stand of trees was cleared.

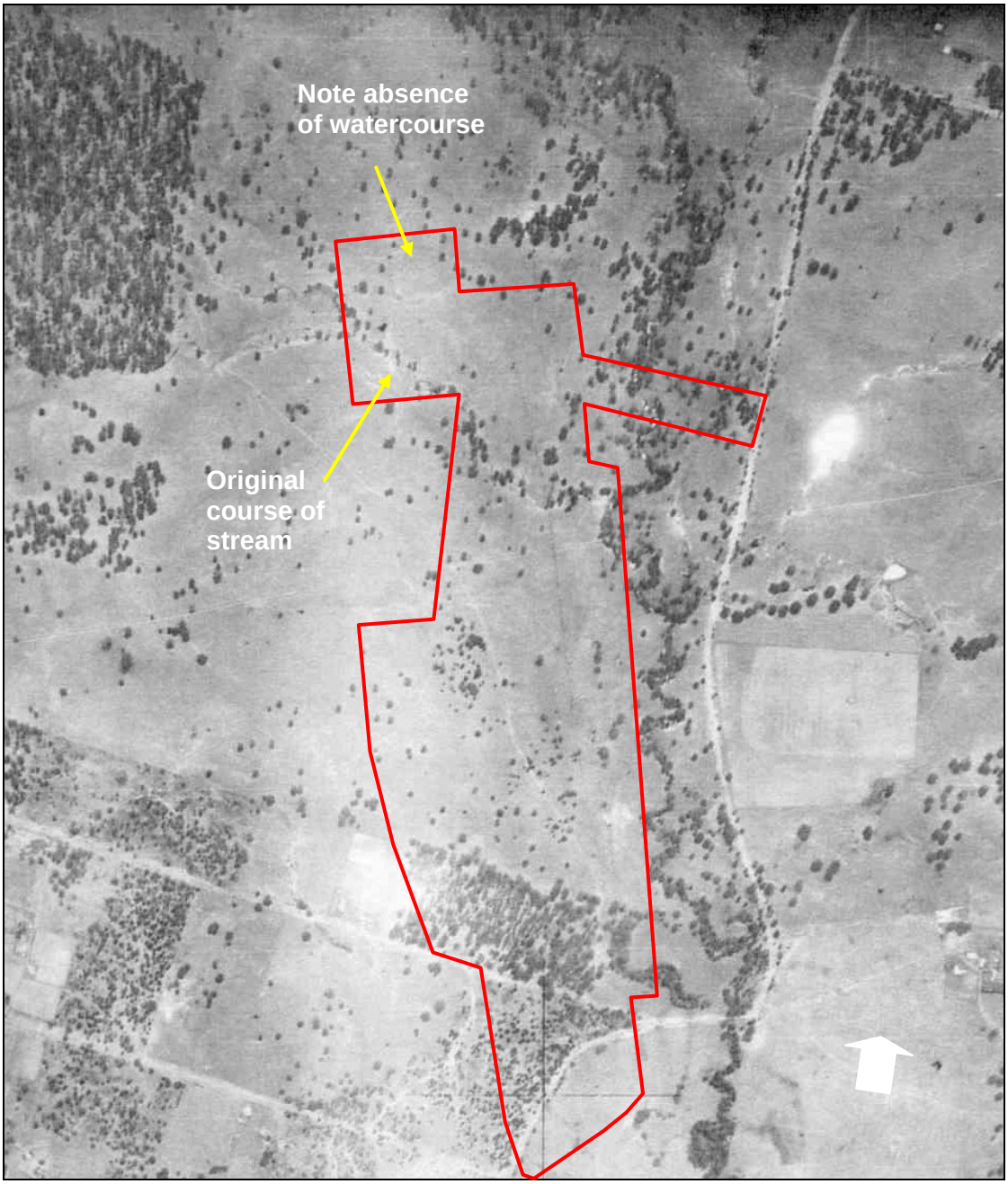

Figure 5. Extract of 1930 Aerial photograph showing the study area [Source: Dept of Lands. 1930 Liverpool. Map 3429 of 10/2/1930 Run 24].

Figure 6. Extract of 1947 aerial image of the study area and surrounds [Base image supplied by Tropman & Tropman Architects].

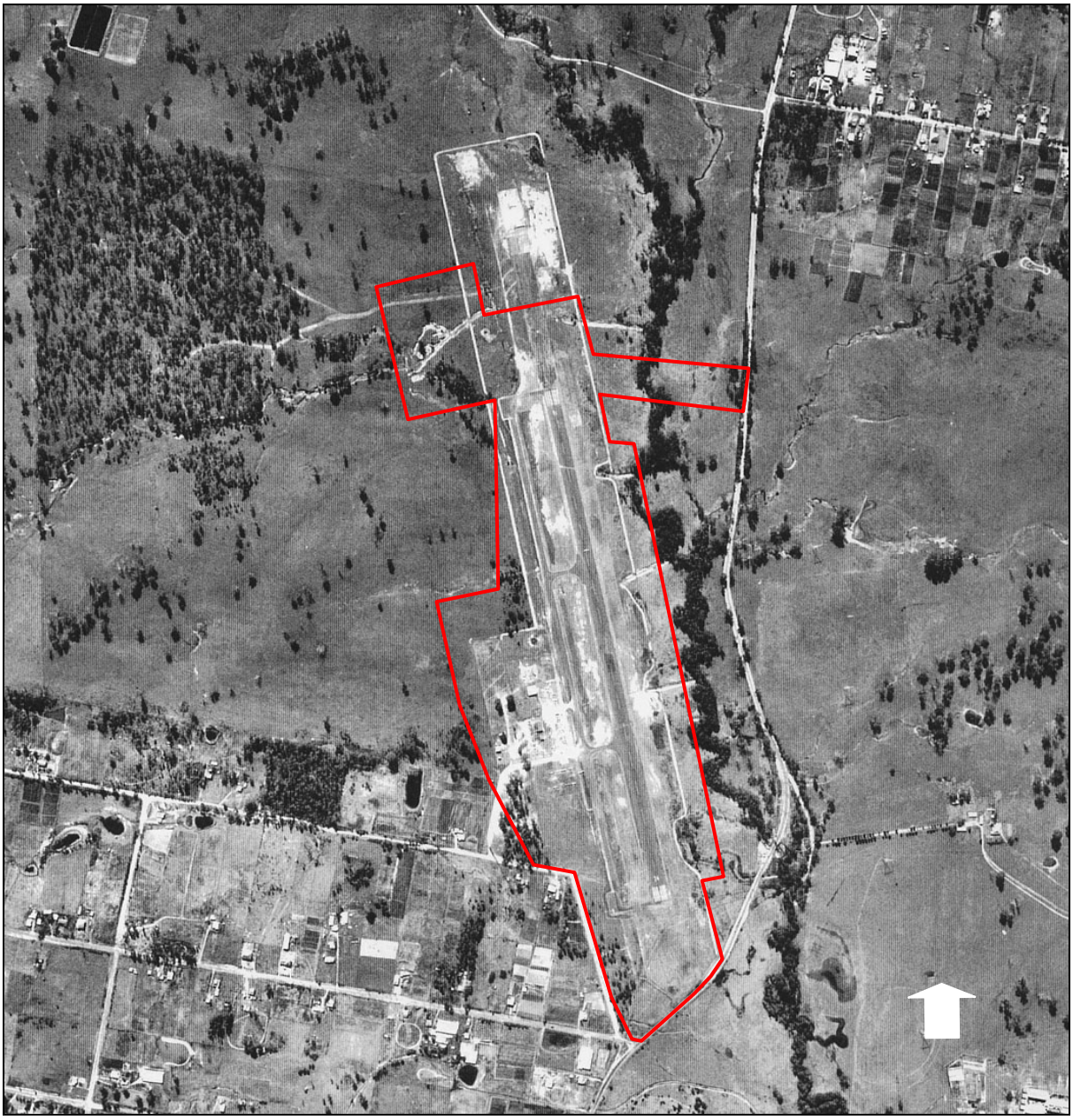

Figure 7. Extract of 1978 aerial image of the study area and surrounds [Base image supplied by Tropman & Tropman Architects].

Figure 8. Current aerial image of the study area.

During, or soon after the war, excavations took place across the site for creek diversions and other drainage now apparent across the site. Of particular note is the clear northeasterly channelling of the northern creek tributary (see northwestern corner of study area in **Figure 6**). It is also pertinent to note the absence of trees along this channelled area. Other major drainage works are visible east of the airstrip to drain this area into Hinchinbrook Creek, including the outlet for the drain of the northern creek channel which runs underneath the airstrip.

By the 1970s the former airstrip was in use as an airport (see **Figure 7**). By this time all trees not immediately along Hinchinbrook Creek had been cleared, as had a remnant patch of woodland in the southwestern corner of the study area. Additional extensive earthworks had taken place within the airfield area, including the addition of taxiways and airport buildings. An addition channel in the northwestern corner of the study are also appears to have been excavated by this time.

In recent years the construction of the M7 motorway has impacted areas along the western boundary of the study area, including drainage works associated with the road in the northwestern corner of the study area (**Figure 8**). Timber has regrown along the main creek corridor and along the original course of the northern tributary. Trees in the vicinity of the excavated channels of the northern tributary all appear to post-date 1978. Recent roadworks along Cowpasture Road have also disturbed the eastern end of the proposed road/bridge corridor for the current proposal. Presently, a bulk storage facility is being constructed between the study area and the M7 Motorway to the south of the location of the proposed detention basin (see **Figure 9**).

Figure 9. Current construction of the bulk storage facility south of the proposed detention basin.

2.4 Aboriginal Cultural and Historical Associations

Prior to the appropriation of their lands by Europeans, the Sydney region was made up of the clan estates of over twenty different Aboriginal clan groups. These clans each comprised several extended families and were the groups in Aboriginal society with links or primary rights to specific areas of land. The study area appears to have formed part of the traditional lands of the clan known as the Cabro-gal (or Cabrogal)[9]. Their clan lands were known as Cabro. Cabro-gal refers to 'the people of Cabro'; '-gal' translates as 'men/people belonging to' [a particular area of land]. Although precise boundaries are not known, Cabro included the entire Liverpool area. From what we know from other parts of Sydney, the Cabro-gal are likely to have numbered between 30 and 70 people in 1788.

By the time Europeans met the Cabro-gal for the first time in the late 1700s, Aboriginal people had already been in the Sydney area for over 20,000 years (1,000 generations). They had lived through an ice age in which the coastline of Sydney and the Georges River varied greatly. As clan estates were closely linked to physical and topographic features, and as the waterways only reached their current level about 6,000 years ago, it is reasonable to assume that the clan estates as we know them from 1788 were probably only in this form for several thousand years at the most. The rising seas drowned thousands of hectares of land off (what is today) the coast of Sydney, forcing those coastal people to move further inland. Therefore we do not know how long the Cabro-gal had been in the Liverpool area.

The Cabro-gal would have had primary access rights to the resources of the Liverpool area, but would have routinely interacted with neighbouring clan groups possibly others from further afield, including intermarriage. However it must be stated that the nature of attachment to country and interaction with adjacent groups is poorly understood.

The language spoken by the Cabro-gal and their neighbours is an (academically) debated issue. Several languages were spoken within the Sydney area. The Georges River appears to have formed the approximate northernmost limit of the Dharawal language of southern Sydney and the Illawarra, north of which another language (often referred to as Darug) appears to have been spoken. It is not clear how rigid these linguistic boundaries were, or whether they had the same territorial significance that tends to be ascribed to them today[10]. Although it is not clear how the Cabro-gal identified themselves (in terms of language affiliation), later historical records suggest familial ties to the Botany Bay and Illawarra Regions. However, regardless of what was their primary language, the Cabro-gal were likely to have been bi- or multi-lingual.

The spiritual beliefs and related cultural practices of Aboriginal people all over Australia are probably the most misrepresented aspect of Aboriginal life. Aboriginal belief systems are extraordinarily complex and not amenable to simplistic explanation or comparisons to the familiar religious belief systems of the western world. For example concepts of 'spirits', 'totems' and 'initiations' are often discussed as though they are basic ideas and practices.

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[9] Note that all spellings are Europeanised forms of the actual term and no simple term is necessarily accurate or 'correct'.

[10] See Attenbrow, V. 2002:Ch 3 for a fuller discussion of language and clan boundaries.

Furthermore, these beliefs varied considerably across Australia and even within regions. For example 'dreaming tracks' and 'songlines' do not appear to have featured in the Aboriginal cultural beliefs of the Sydney region (Attenbrow 2002:127). Different social or cultural groups may have played varying functions in the performance of cultural duties and ceremonies in any one area, as documented with aspects of male initiation in the Sydney harbour area (Attenbrow 2002:131).

There is very little information available about the cultural beliefs of Sydney's Aboriginal people. The spiritual life of Aboriginal people was overlooked by early Europeans in Sydney and little information has been recorded. Unfortunately also, with the loss of language and fragmentation of Sydney's original cultural groups, most of this kind of information has not been passed down through the generations. Those records we do have also need to be viewed in terms of the highly biased and unobservant cultural lens through which they were recorded by early Europeans in Sydney. Extreme caution should be exercised in discussion or interpretation of these beliefs due to the limits of our understanding of this complex area of traditional life.

We have no direct information about the cosmology of the Cabro-gal except that which is thought generally to apply to the whole of Sydney. The whole of the south-east of Australia, in seeming contrast to the rest of the country, is linked to the belief in an ancestral being known by a variety of names of which Baiame and Daramulan (with a variety of spellings) are the two most common in the Sydney area (Attenbrow 2002:28). Many totemic representations in Sydney's rock art appear to relate to these father beings and they are believed to be representations of the beings themselves.

The post-European contact Aboriginal history of the study area is not well researched. A number of studies of post-European contact Aboriginal history have been made for the Sydney area (e.g. Goodall 1982 & 1996, Kohen 1993), although undoubtedly many other sources of information remain to be consulted. A current research project, the Sydney Aboriginal Historical Place Project, initiated by MDCA Principal Consultant Paul Irish is seeking to locate these sources and to date has compiled a database of almost 300 places lived in and/or regularly used by Aboriginal people in the Sydney region after European contact[11].

Based on this research and other sources consulted for the current study, there does not appear currently to be documented evidence specifically relating to the historical use of the study area or its immediate surroundings by Aboriginal people (though some records of early European land holders do not appear yet to have been examined for this information). It is highly likely that Aboriginal people continued to use the general area for some time after 1788, but the specific lands within the study area do not appear to have been used as a major historical campsite, ceremonial area, mission or reserve or have more recent historical associations.

Maria Lock, an Aboriginal woman from the northern Cumberland Plain who was the first girl schooled at the first Aboriginal Mission school or "Native Institution" at Parramatta from 1815, was granted land in Liverpool together with her non-Aboriginal husband and ex-convict

[11] A project overview is currently available at http://www.aiatsis.gov.au/research/conf2009/papers/UH1.html#irish .

Robert Lock in 1831. This 40 acre grant was on the banks of Brickmakers Creek about four kilometres eastsoutheast of the study area, on the site of the current Liverpool Council complex (Hinkson 2001:156-8). Maria and her family lived there between 1833 and 1844 and it is possible that members of her family used the land after this time. It seems unlikely that Maria or her family would have intensively used other areas beyond the land grant. The grant was officially family property until 1919 when it was "reclaimed" as government land (Hinkson 2001:156). In addition, Aboriginal boys from the Parramatta Native Institution were sent to the Male Orphan School north of Liverpool in the 1820s when the Institution closed, though this history is poorly understood at present.

There are a number of other local records which demonstrate that Aboriginal people continued to live in the Liverpool area throughout the 19th century. These include pictures of the "Cabramatta Tribe" (e.g. Keating 1996:18), government records such as blanket distribution lists into the 1830s and 1840s, and unreferenced mentions of Aboriginal people such as "Black Tommy" and "Black Eliza" (Liverpool Council 1960: np). Aboriginal people are also known to have continued to live on the Georges River further downstream until well into the twentieth century (Goodall & Cadzow 2009). There is however no documented material specific to the use of the study area by Aboriginal people in the historic past.

3.0 Archaeological Context

3.1 Regional Archaeological Context

The former Hoxton Park Airport site is located on the Cumberland Plain, in the southern part of the Sydney Basin. Aboriginal sites across the Plain are predominantly open camp sites distinguishable as surface scatters and subsurface deposits of stone artefacts varying greatly in size and artefact density. Stone types used in artefact manufacture usually reflect proximity to stone sources and artefact types and size can reflect distance from sources. Less frequently occurring sites include raw material extraction sites, stratified deposits, scarred trees where trees of sufficient age have survived and axe grinding grooves where there are exposures of suitable sandstone in the Wianamatta Group of shales and clays. Most of these sites have been identified during the course of archaeological survey prior to development, others as a result of broad area reconnaissance and research on the archaeological patterning across the Cumberland Plain.

Broad area studies include Kohen's 1986 doctoral research on the western Cumberland Plain Kohen [1986:292] in which he concluded that the availability of water was the major influence on the distribution of sites [site selection process] across the landscape. Haglund [1980] developed a predictive model of site location based on early survey work around Blacktown which Kohen drew upon. Haglund found water sources and elevated dry ground near water were important factors. Smith' undertook a major compilation and analysis of data for the northern Cumberland Plain [Smith 1989a] and similarly found water to be a key factor in determining site location.

Smith [1989b] conducted a planning study for Aboriginal archaeological sites within future release areas [over 25km2] around Liverpool, including portions of the current study area. Twenty areas which were situated mostly along creeklines were sampled by Smith. Her study of the Liverpool release areas tended to confirm Kohen's [1986] site location model that almost 75% of sites were found in association with a permanent water source and over 60% of sites were within 50 m of water. Smith concluded that sites in the Liverpool area were more likely to occur on creek flats than on any other topographical feature, and that the probability of sites occurring on creek flats increased near creek confluences. These results were inherently biased by the predominance of creeklines in the sample survey areas, and like Kohen's model was largely based on surface sites.

Later studies, such as McDonald's investigations at Rouse Hill [McDonald 1993; McDonald & Rich 1993] and at St Marys ADI site [McDonald 1997] and for the proposed Second Sydney Airport at Badgerys Creek [Navin & Officer 1997a], have refined these models.

Navin Officer [1997a] suggest proximity to a diversity of economic resources such as food and lithic materials, and to a lesser extent, elevation are also factors in site location. Navin Officer [2004] summarise the findings from the McDonald and Rich Rouse Hill investigations which have been used in studies of similar areas on the Cumberland Plain as follows:

- most areas which were the subject of subsurface investigations contained subsurface material;
- site patterning could be related to gross environmental factors - sites on permanent water are more complex than sites on ephemeral drainage lines;

- major creek confluences are prime site locations;
- depositional environments for example, alluvial terraces, contain the best potential for intact cultural material, although some hillslope zones may also have good potential;
- intact archaeological material may remain below the plough zone, ie. the top 25 centimetres of soil;
- minor gullies tend to have low density sites; and
- fewer sites were located on ridge tops, possibly due to greater disturbance of these areas.

Currently accepted models of open camp site location within the Western Sydney region suggest that densities of sub-surface artefacts are correlated to the 'stream order' context in which they are located. Stream order refers to the permanence of water availability and is related to the number of tributaries e.g. a 'first order stream' is a minor tributary which becomes a 'second order stream' at its confluence with another tributary. Essentially, the higher the stream order, the larger and more permanent the water source. This correlation between increasing stream order and increasing artefact densities has recently been quantified [JMCHM 2004a ; 2004b:79ff]. She found that sites associated with stream orders of 1-3 generally have less than 25 artefacts per square metre when excavated. In the current context, Hinchinbrook Creek which forms most of the study area's eastern boundary is a fourth order stream and could according to the model, where relatively undisturbed ground remains, contain sites of greater than 25 artefacts per square metre. There is one intermittent third order tributary of Hinchinbrook Creek which once traversed the site, However this has been diverted and redirected flow to Hinchinbrook Creek passes through culverts and drainage channels. The nearest major creek confluence is located approximately 2km downstream where Cabramatta Creek joins Hinchinbrook Creek.

3.2 Local Archaeological Context

Background research into archaeological investigations previously completed within and surrounding the study area was undertaken for the current study. Sources accessed included the DECCW Aboriginal Heritage Information Management System Aboriginal Sites Register ('the AHIMS Register') and Catalogue of Archaeological Reports and other secondary sources. This review allowed the plotting of known Aboriginal sites and a means of predicting the potential location of further unrecorded areas of Aboriginal heritage significance.

3.2.1 Aboriginal Archaeological Sites in the Area

A search of the AHIMS Register was undertaken for the current project of a 4km by 5km area centred on the study area[12]. The search revealed records of 80 previously recorded Aboriginal sites, almost all of which are open campsites, isolated finds or areas of subsurface archaeological potential (sometimes associated with documented surface artefacts). The search revealed that several sites have previously been registered within or immediately

[12] AHIMS Register search of 17 November 2009 of AMG coordinates in Zone 56, E299000 – E303000, N6243000-N6248000.

adjacent to the study area (see **Figure 10**), though closer inspection of site records revealed that only two of these are extant (see **Table 1**). It should be noted that the description and mapping for Site #45-5-2474 [a single artefact] actually place it further west than the AHIMS coordinate, outside or on the margins of the former airport site. It has in any case been destroyed under a s90 AHIP during construction of the M7 Motorway, according to the DECCW AHIMS records. A number of other previously recorded sites in the vicinity appear also to have been collected/destroyed in relation to recent road infrastructure and residential development projects as reviewed below.

A search of the AHIMS Catalogue of Archaeological Reports retrieved a number of previous archaeological studies in and adjacent to the study area and these are reviewed below. In addition, studies were also obtained directly from development proponents and other consultants when not available on the Catalogue. This research revealed that several stone artefacts had been recorded immediately north of the study area in a recent study (Heritage Concepts 2006) but had not been registered on AHIMS. These are discussed in more detail in relation to that study.

In addition to the AHIMS Register search, several other repositories were searched to determine whether any additional Aboriginal sites or areas of potential had been identified within or adjacent to the study area. The results of these can be summarised as follows:

- A search of the Australian Heritage Database (incorporating the Register of the National Estate) was undertaken on 17 November 2009 for Aboriginal heritage items within the Liverpool Local Government Area. **No places in or within close proximity to the study area have been listed for their Aboriginal heritage value**. The Hoxton Park Airport site is listed on the Register of the National Estate in association with its wartime history but not for any Aboriginal heritage values.
- The NSW Heritage Inventory (incorporating the NSW Heritage Register) was searched on 17 November 2009 for Aboriginal heritage items within the Liverpool Local Government Area. The Inventory includes places listed on the State Heritage Register as well as on local government LEPs. **There are no items on the NSW Heritage Register or NSW Heritage Inventory listed within or adjacent to the current study area for their Aboriginal heritage values**.
- As noted above, a database of Aboriginal historical places in the Sydney region compiled by MDCA archaeologist Paul Irish for the Sydney Aboriginal Historical Places Project does not include any places within or in close proximity to the current study area.

The vast majority of recorded sites in the local area are low density surface scatters of stone artefacts or isolated stone artefact finds with no associated subsurface potential. A smaller number of sites are associated with varying levels of subsurface potential as reviewed in the following section.

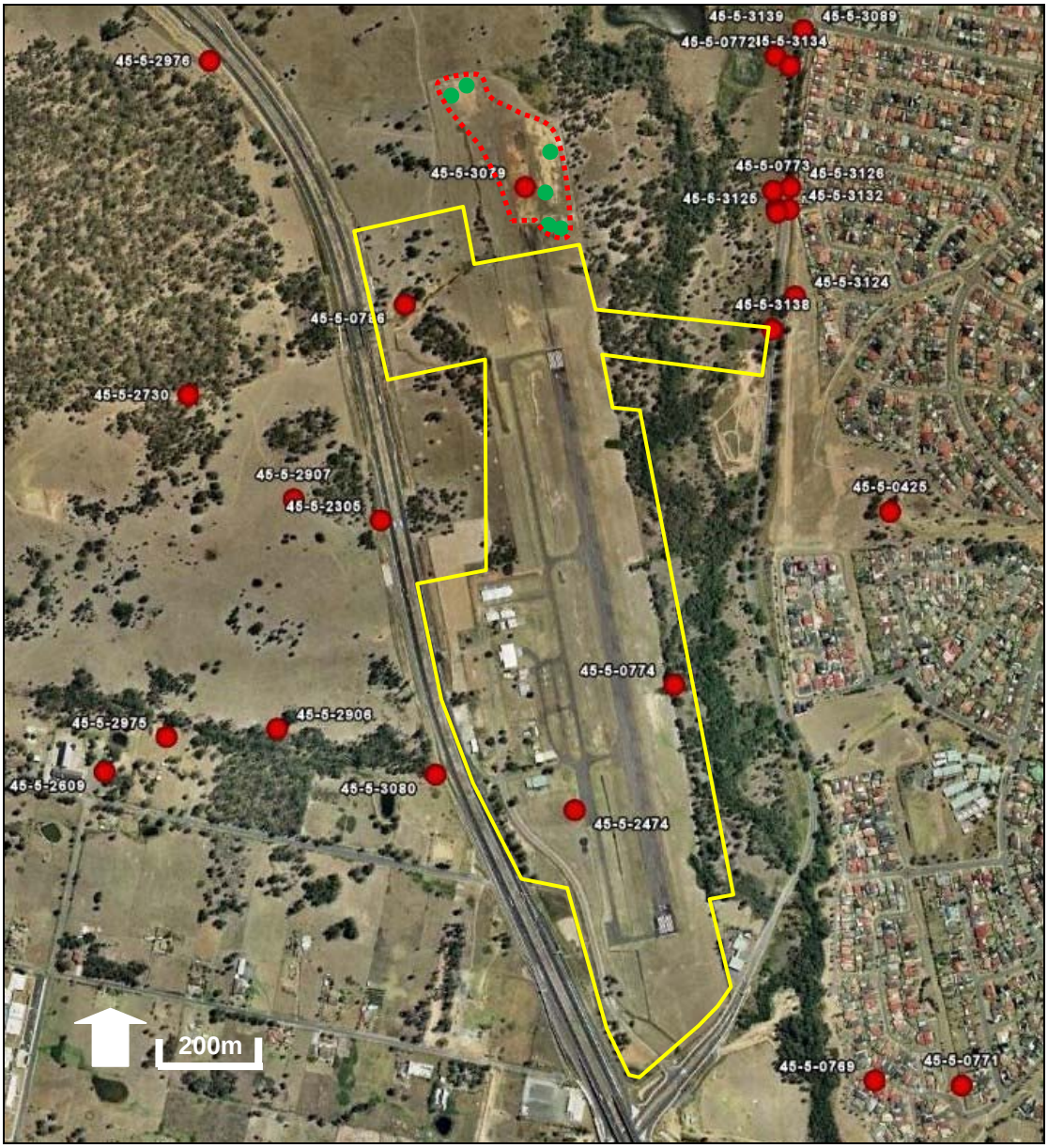

Figure 10. Previously recorded and/or registered Aboriginal archaeological sites in the vicinity of the study area as per the AHIMS Register.

Note Site #45-5-2474 is incorrectly located on the AHIMS Register and was actually located ca. 100m to the west along the motorway alignment. It was destroyed during construction of the motorway. The revised boundary of Site #45-5-3079 is marked as a red dotted line and includes six additional artefact scatters (HP1-6) recorded but not registered by Heritage Concepts 2006.

Table 1. Summary details of recorded Aboriginal sites most relevant to the current study.

AHIMS Site #	Site Name	Site Type	Site Recorders	Site Description
45-5-0774	HC6	Open Campsite	Smith 1989b	3 artefacts on excavated channel bank
			Heritage Concepts 2006	Not visited
			Current MDCA study	No artefacts currently visible at site co-ordinate
45-5-0786	HP1	Open Campsite	Smith 1989b	2 artefacts in disturbed context with no associated potential
			Brayshaw & Rich 1996	Located additional artefacts. No identified potential.
			Heritage Concepts 2006	Not visited
			Jo MDCHM 2009	Located additional artefacts. Assessed as PAD
			Current MDCA Study	No artefacts located. Revised assessment of potential
45-5-2305	P-CP5	Open Campsite	Brayshaw & Rich 1996	3 artefacts
45-5-2474	IF6	Isolated Artefact	Brayshaw & Rich 1996	Isolated artefact
45-5-3079	HPA-1	Open Campsite	AMBS Barton 2001	2 artefacts in disturbed and possibly imported context
			Heritage Concepts 2006	Not visited
45-5-3080	HPA-IF1	Isolated Artefact	AMBS Barton 2001	Isolated artefact
45-5-3124	CP10	Open Campsite	AHMS 2005	11 artefacts
45-5-3138	IF6	Isolated Artefact	AHMS 2005	Isolated artefact
Not Registered	HP1, HP2, HP3, HP4, HP5, HP6	Open Campsite	Heritage Concepts 2006	5 artefact scatters [containing 16, 2, 2, 2 and 4 items] and an isolated find at northern end of airstrip
			MDCA in prep.	Identified each location from co-ordinates/photos. Not all artefacts relocated. Assessed as part of #45-5-3079

3.2.2 Previous Aboriginal Heritage Assessments

There have been a number of Aboriginal heritage assessments specific to the former Hoxton Park Airport site [Smith 1989b; AMBS 2001; Heritage Concepts 2006; and MDCA in prep] and a number of other studies undertaken on adjacent lands such as the M7 corridor [Brayshaw & Rich 1996], Cowpasture Road [AHMS 2005 & 2007], and Lot 216 in DP 1111381 [JoMcDCHM 2009]. These studies have recorded and/or re-recorded known sites, some have made observations about their condition and some have made additional or alternate management recommendations. Collectively they provide a basis on which to assess the potential of the area to yield further Aboriginal archaeological remains.

Smith 1989

Smith 1989b identified two sites adjacent to the proposed industrial lands as part of a study of future urban release areas for Liverpool Council, but did not conduct survey within the fenced airstrip area. **Site # 45-5-0774** is located within the Hinchinbrook Creek corridor and does not

extend west into the fenced airfield area. It consists of two artefacts in a disturbed context and Smith recommended s90 collection/destruction of the site if impacts were proposed, but also noted that further assessment was required to determine whether the site was associated with subsurface archaeological potential. **Site # 45-5-0786** is located in the area of the proposed detention basin to the northwest of the proposed industrial lands. Smith located three artefacts in a heavily disturbed and actively eroding location along an excavated creek channel. No associated subsurface potential was noted and s90 collection/destruction was recommended in relation to proposed impacts.

Brayshaw & Rich 1996

Archaeological investigations for the construction of the M7 Motorway included survey and assessment along the road corridor, including the western margin of the former Hoxton Park Airport site and including the site of the current proposed detention basin. These areas were noted by Brayshaw and Rich either as 'heavily' or 'moderately' disturbed (1996: Figure 2.1). **Site #45-5-0786** (HP1), within the area currently proposed for a detention basin, was relocated by Brayshaw & Rich[13] who recorded three additional artefacts to those of Smith (1989b) and noted excellent surface visibility, allowing them to characterise the potential of this site. Specifically, no further artefacts were located 150m upstream to the west despite good visibility and it was noted that the area of the site had been "extensively bulldozed" (1996:38-39). A DECCW s90 AHIP consent to destroy was recommended for the site if it were to be impacted, though it appears to have been avoided by road construction and a permit does not appear to have been sought.

Along the western margin of the former airport site an open campsite consisting of three surface artefacts was located (**Site #45-5-2305**) as well as an isolated artefact find (**Site #45-5-2474**). Both of these sites were in disturbed areas with high surface visibility and were not assessed as being laterally more extensive or retaining subsurface archaeological potential. The sites were later destroyed under s90 permits during construction as recommended by Brayshaw and Rich, as was isolated artefact **Site #45-5-3080** recorded by AMBS (2001).

It is noted that Brayshaw and Rich defined a number of areas of archaeological potential in the area of their survey. None of these were located within or immediately adjacent to the current study area, but instead relate to a major tributary of Hinchinbrook Creek around one kilometre north of the study area, and areas more than 5km south towards Casula.

AMBS 2001

In 2001 AMBS conducted a reconnaissance survey of the Airport site as part of a preliminary management study to identify possible future requirements in relation to development of the site. It appears that both of the previously recorded [Smith] sites were relocated (though further details were not provided). The survey also identified a third open site at the northern end of the airstrip and an isolated artefact [**Site # 45-5-3080**] which has subsequently been destroyed under a s90 permit during construction of the M7 Motorway. The open campsite is **Site # 45-5-3079** consisting of two stone artefacts on lag deposit associated with a few

[13] Labelled 'P-CP6 by Brayshaw & Rich

unmodified and coarse-grained silcrete nodules. No recommendations were made specifically about this site but its description implies that it has no archaeological potential, being located on the prepared clay and gravel surface of the airstrip.

The AMBS study also made preliminary recommendations for the former Hoxton Park Airport site about the need for further survey and the possible need for further archaeological investigation in areas not already impacted by the airport construction activities. Specifically, the report identifies landforms which retain A-unit soil horizons (either A1 and/or A2) as requiring further survey and possibly archaeological investigation. This may potentially have included the area to the northwest of the airstrip to the south of **Site # 45-5-0786** [see above] and the area immediately to the south of this site, now under construction for a bulk storage facility, as well as areas within the Hinchinbrook Creek corridor.

AHMS 2005 & 2007

AHMS [2005] surveyed the proposed widening of Cowpasture Road (now completed) between Elizabeth Drive and Nineteenth Avenue, approximately 3km. This area is located on the eastern side of Hinchinbrook Creek opposite the former Hoxton Park Airport site. The survey located 10 open campsites and 6 isolated finds, and several previously recorded sites were not relocated. The newly recorded sites were all relatively low density surface scatters in disturbed contexts with no associated archaeological potential. One isolated find was located at the eastern end of the currently proposed road/bridge corridor (**Site #45-5-3138**), and an open campsite (**Site #45-5-3124**) consisting of 11 surface artefacts about 70m further north (see **Figure 10**). Both of these sites were impacted by the road widening proposal and were collected under as s90 permit [Permit #2974], as were two other sites and another isolated find (AHMS 2007).

Some subsurface potential was defined in areas outside of the immediate road corridor, though most of the area opposite the current study area was assessed as retaining low potential in recognition of historical impacts and the archaeological sensitivity of the landforms assessed. Despite the identification of several areas of archaeological potential, the DECCW proposed that only one larger open area be excavated and this was agreed to and carried out, as reported in AHMS 2007.

These excavations took place along the proposed road corridor between **Site #45-5-3126** and **Site #45-5-3134** approximately 100m south of Green Valley Road (see **Figure 10**). This area is located about 170m east of the main course of Hinchinbrook Creek and the intersection of a lower slope and creekflats, about 500m northeast of the current study area. A total of 100 square metres was excavated as one open area. The excavations retrieved 1502 stone artefacts, representing a relative low artefact density of 15/m^2, and a 'background' density of less than 10/m^2 with at least one cluster of artefacts over 10m^2 (10% of the excavated area) containing 27% of the total artefacts. The deposit was historically and naturally impacted (by bioturbation), though conjoining of some artefacts suggested partial horizontal integrity to the artefacts. Over 80% of the artefacts were silcrete, followed by tuff (8%) and chert (4.6%) and lesser amounts of quartz, quartzite, fine-grained siliceous material and silicified wood (AHMS 2007:73). The site was interpreted as having been used on at least two occasions for the manufacture and use of stone artefacts, probably relating to the

exploitation of faunal resources. It was not considered rare or exceptional in the local area and a s90 permit was recommended without further archaeological excavation.

It is noted that the excavated area is in a similar topographic location [though slightly more elevated] to the creek corridor areas of the current study area east of the fenced airfield area, though probably more disturbed historically than these areas. Soil analysis undertaken for the excavations revealed a lack of alluvial sediments below the top 20cm of the soil profile, which was itself partly characterised by historic fluvial material. This indicates an eroding clay subsoil rather than extensive alluvial deposition. The relationship of these deposits to those within the airport site cannot currently be established.

Heritage Concepts 2006

Heritage Concepts [2006] followed the AMBS study with an additional study of the Hoxton Park Airport site in relation to a proposed rezoning of the area for future development. It is not clear whether the survey examined the three previously registered Aboriginal sites within the Heritage Concepts study area, though all three are recommended for a s90 impact permit. Additional artefacts were recorded at the northern end of the runway (immediately north of the current study area) in close proximity to the previously recorded **Site #45-5-3079**, This site is mapped but the report does not further mention that site in relation to the new recordings. Specifically, five scatters of artefacts and one isolated artefact find were found, coded HP 1-6 and forming a low density scatter of artefacts associated with exposed and eroded surfaces. In total there are 27 artefacts present stretching along 2-300m of eroded surfaces, mostly close to the cyclone wire fence separating Hinchinbrook Creek from the airfield. Photographs showing the site locations [Heritage Concepts 2006: p25 and 30] show denuded and degraded surfaces, including clay and gravel surfaces. Given the totally disturbed context and lack of associated archaeological potential, a study by MDCA [MDCA in prep.] has grouped this with registered **Site #45-5-3079** as all scatters are likely to represent the dispersed remnants of a larger campsite or scattered artefacts introduced with the imported gravels in this area.

In addition the Heritage Concepts study present a brief and simplistic description of subsurface archaeological potential at the site which would be better defined as sensitivity and not archaeological potential. The entire section dealing with this issue is as follows:

> *"Due to the landform on which the aerodrome is located and the proven archaeological value of the area, the Hoxton Park Aerodrome site is considered to be of high archaeological potential. There are some exceptions to this, including the runway, taxiways and developed hangar / workshop area which have been heavily impacted by past construction activities. The varying levels of archaeological potential are graphically presented in Figure 5.4." (Heritage Concepts 2006:31)*

As discussed in **Section 5** of the current study, this is in fact largely an appraisal of archaeological sensitivity (the likelihood that certain landforms would have been used by Aboriginal people). The lack of consideration of ample evidence for subsurface historical impacts across the site, mean that in most cases archaeological potential (ie the likelihood for relatively intact subsurface archaeological deposits to have **survived** in various areas) **cannot be considered to have been assessed.** A simplistic correlation has been used that

all lands not impacted upon by the actual runways or the adjacent hangers and access road retain archaeological potential/sensitivity. This includes areas which have been graded, levelled and drained areas adjacent to the runways, bulldozed and graded creek diversions and deep channelling of the Hinchinbrook Creek side creeks all of which have may once have been a likely Aboriginal site location but which now retain negligible archaeological potential. The graphical representation in Figure 5.4 of the Heritage Concepts 2006 report of 'archaeological potential' should be considered misleading, incorrect and outdated (as discussed below).

The Heritage Concept study was conducted under the Federal Airport Act and the recommended site management actions were not subject to State planning provisions or review[14]. No further actions were subsequently taken.

Following this study, an area to the north west of the former Airport and south of the currently proposed detention basin, was proposed for a bulk storage facility. This facility is currently under construction (see **Figure 9**). This area was assessed as having "High Archaeological Potential" by Heritage Concepts (though we argue above and below that this was not warranted). Consistent with the recommendations of that report therefore, the area should have been subject to archaeological test excavation. However it appears that monitoring of earthworks was all that was undertaken in this area, which was supported and subsequently undertaken by Aboriginal community stakeholders. A small number of isolated artefacts were collected and retained during the monitoring process. There appears to be no documentation concerning this later work, other than letters of endorsement for it to occur by then Aboriginal stakeholders DTAC, DCAC and the Deerubbin Local Aboriginal Land Council.

However, given the results of the collection[15] it is most likely that this area contained a low density scatter of artefacts and not the remains of a large concentrated camp site. It could be extrapolated that this would be the case for the area in and around the adjacent **Site # 45-5-0786** [see above] and the proposed detention basin.

JoMcDCHM 2009

In 2009 Jo McDonald CHM assessed Lot 216 in DP 1111381, to the north and northwest of the former Hoxton Park Airport site in advance of a proposed residential subdivision. The survey identified three open campsites, one isolated find and an area of subsurface archaeological potential north of the current study area. Within the area of **Site #45-5-0786** (the proposed detention basin area) nine artefacts were located, though it is not clear whether any of these were previously recorded by Smith (1989b) or Brayshaw & Rich (1996). A draft version of the Jo McDonald CHM report covered the area of the proposed detention basin which falls within the current development proposal. The draft identified the whole of this area affected by the detention basin, including the bulldozed areas of the creek diversion, and also a currently wooded area to the north of the bulldozed lands as retaining potential archaeological deposit (PAD). The final report, due to a boundary adjustment mapped only

[14] For example, none of lands identified as sensitive were registered as PAD on the NSW DECCW AHIMS database, and there was no requirement for a DECCW s87 or s90 AHIP.

[15] Pers. Comm. with DCAC; DTAC and DACHA who were represented throughout the monitor process.

the northern part of this area (north of the proposed detention basin and therefore immediately outside and north of the current study area) as PAD. The area of PAD was recommended for further archaeological investigation under a DECCW s90 with salvage if it could not be managed for preservation. As discussed in **Section 5**, this assessment of subsurface archaeological potential is not considered justified on the basis of additional evidence reviewed during the current study.

MDCA [in prep]

MDCA [in prep] investigated the remaining northerly portion of the former Hoxton Park Airport site as part of a study of a proposed residential subdivision immediately to the north of the current study area. Survey for the study located the area of **Site #45-5-3079** and artefact scatters **HP1 – HP6** (as recorded by Heritage Concepts 2006). Due to the completely disturbed and possibly imported nature of these surface artefacts, and the demonstrable lack of associated subsurface archaeological deposit, they have been assessed as being part of the same broad low density artefact scatter and the AHIMS Register record for **Site #45-5-3079** is to be updated to reflect this. It was also determined that the site was associated with a graded surface with exposed lag gravels, which does not extend south into the current study area and therefore the site is wholly located north of the current study area and will not be affected by the current proposal. Detailed recording of the site artefacts is recommended in association with collection of the artefacts under a NPW Act s90 permit [MDCA in prep].

Other Local Previous surveys and excavations

Apart from the Smith [1989b] surveys, there have been several other relatively large area surveys conducted in the area of Hoxton Park. Conyers & Haglund [1983] surveyed 250 hectares east of Cowpasture Road, Dallas & Hankel [1985] surveyed over 1.5km^2 at Cecil Park and Navin & Dallas [1991] surveyed 155 hectares at Cecil Park. These studies found low numbers of open surface sites comprising low artefact densities. Other surveys at Prestons [Navin 1991] and at Hoxton Park [McDonald 1991] similarly found the remains of small disturbed camp sites.

McDonald (1992) completed test excavations at three site locations (**#45-5-964-6**) to the east of Cowpasture Road at Hoxton Park that revealed a total of 107 artefacts including backed artefacts and debitage and bipolar cores. The main concentrations of artefacts were located between 70-90m from the creekline, a tributary of Cabramatta Creek, on the first high ground above the alluvial floodplain. Amongst the conclusions reached by the investigations were that the prediction made by Smith that sites would be located within 50m of creek banks was not supported. Rather sites were likely to be distributed more than 50m from creeklines on hill slopes and high ground as Haglund had predicted.

Salvage excavation of **#45-5-965** again provided evidence of artefacts present up to 80m from a creekline, extending onto adjacent lower slopes (Rich & McDonald 1995). A total of 3,686 artefacts were recovered with almost 90% deriving from two silcrete knapping floors where backed blades were manufactured. Also recovered away from these principal concentrations were two broken edge ground axes, cores, utilized backed blades and flakes.

Dallas & Steele [2000] test excavated gently sloping side slopes of Cabramatta Creek at First Avenue, Hoxton Park, very close to its confluence with Hinchinbrook Creek and found low density scatters of artefacts across the slope. AMBS [1996] test excavated an open camp site **#45-5-2319** near Hinchinbrook Creek to the north of the First Avenue site and found a total of 60 artefacts with an average artefact density of 6.7 artefacts per sqm. Artefacts occurred in low density across the area investigated and no evidence for manufacturing events or *in situ* knapping was identified. Both sites were considered to represent a limited instance of artefact discard, possibly resulting from general foraging in the vicinity of Hinchinbrook Creek

Fourteen sites have been recorded for the Maxwells Creek catchment. The Navin Officer [1997 and 1998] investigation of an area of potential archaeological deposit long Maxwells Creek south of the Crossroads found very low density scatters of artefacts. Out of 21 pits excavated, 19 contained a total of 92 artefacts. The area investigated was over 400m by 200m including both sides of the creek. The results were interpreted as representing small, spatially scattered low-level concentrations of knapping discard which largely was associated with microblade production. The pattern observed was of very low intensity knapping activities, possibly the result of occasional spear repair activities, by individuals or small hunting parties at a casual rest stop. It was concluded that such evidence was likely to be dispersed for a considerable distance along the flats of this creek.

Archaeological test excavations of two areas of PAD along Cowpasture Road south of Hoxton Park Road were undertaken by Austral Archaeology (2004). The PADs were located along an unnamed tributary of Cabramatta Creek. A total of 47 0.5m x 0.5m test pits were excavated at 10m intervals across the two PADs, retrieving just 183 artefacts in total. Subsequent salvage excavations within PAD1 [Austral Archaeology 2008] retrieved 1129 artefacts across 75 1m x 1m excavated pits, with at least one denser concentration of artefacts probably representing a knapping event. Artefact densities were consistent with the test excavations at around 15/m2 and comparable to the AHMS Cowpasture Road excavations opposite the current study area described above (AHMS 2007).

3.3 What Aboriginal Heritage May Remain within the Study Area

Based on the archaeological, environmental, geotechnical and historical reviews presented above, it is possible to make predictive statements about the types of remains of Aboriginal use of the study area which may have been produced, and the likelihood of their survival.

It is likely that a range of food and organic raw materials would have been available to Aboriginal people in and around the study area. Stone raw materials though are likely to have been obtained directly from other areas or through trade. The area in general is likely to have afforded suitable locations for campsites on relatively flat open ground in proximity to freshwater, in other words particularly along the main channel of Hinchinbrook Creek, though portions of this area may have been subject to regular flooding.

The traces left by Aboriginal people of their use of an area include discarded materials and foods (e.g. stone and organic artefacts, bones, seeds, charcoal and/or hearth stones from fireplaces) and human burials in open or shelter contexts. Additionally, Aboriginal people left scars on trees relating to functional use (such as cutting bark for various uses) or markings for

ceremonial reasons. Finally sandstone (where exposed) was used by Aboriginal people for engraving images or for sharpening axes and stone implements and charcoal or pigment art was sometimes painted on rockshelter walls.

The degree to which any of these traces of Aboriginal occupation, if originally present, will have survived until the present day is closely related to the geological and topographical situation and history of land use impacts of the study area, which has been reviewed above. This suggests the following:

- Organic materials (including bone) generally only survive in the Sydney region in areas buffered in some way from the corrosive affect of acidic soils (such as within shell middens with their high lime content) or shelters locations such as sandstone overhangs. It is unlikely that such material will have survived within the study area.
- Two surface artefact scatters are currently documented within the study area and other similar sites have previously been located immediately adjacent to the study area. The only likely additional evidence of past Aboriginal use of the area likely to be present within the study area are surface and possibly subsurface manifestations of stone artefacts. Previous surveys and excavations in and around the study area suggest these are likely to be of low density and little contextual integrity, except perhaps along major creeklines such as Hinchinbrook Creek. Sandstone is not exposed in the immediate vicinity, precluding the use of rockshelters for living or surfaces for art or stone sharpening. Trees with bark of suitable types to have been used by Aboriginal people may have been present within the study area but few trees of potentially sufficient age appear to have survived to the present day, and these are restricted to the immediate banks of Hinchinbrook Creek and its northern tributary.
- Stone artefacts in isolation or combination in open contexts are likely to be restricted to the uppermost horizons of the soil profile (A1 horizon or A2 by downward movement). Historical disturbance has thoroughly disturbed or removed these horizons from the main fenced airstrip portion of the study area. Major drainage channelling works in the northwestern portion of the study area have similarly disturbed this area. Localised excavations associated with these drainage works are also evident within the Hinchinbrook Creek corridor lands east of the airstrip and this is the only area in which these uppermost horizons are likely to have survived more or less intact. In all other areas. With the exception of this area then, archaeological remains are likely to be highly disturbed/dispersed or destroyed/removed.

4.0 Archaeological Survey

4.1 Survey Methodology

4.1.1 Objectives

The archaeological investigations reported here have consisted of an archaeological inspection of the study area undertaken by Mary Dallas and Paul Irish [MDCA Archaeologists] together with Roy Murray (GLALC), Leanne Watson (DCAC) and Gordon Morton (DACHA) in fine weather on Thursday 26 November 2009.

The purpose of the field inspection was to relocate previously recorded Aboriginal archaeological evidence within the study area and make observations to support a more detailed assessment of subsurface archaeological potential than those from previous studies. The survey also provided an opportunity to discuss the current proposal with Aboriginal stakeholder groups and potential management of known and potential archaeological remains within the study area.

4.1.2 Site Survey and Recording

Survey was conducted on foot, examining all areas of exposed ground and any trees of sufficient age to bear scars of possible Aboriginal cultural origin. An appraisal of ground disturbance, surface visibility and thus estimated effective survey coverage was also carried out during the current site inspections to allow, if appropriate, a tabulation of this data (see **Section 4.4**) in a format that is consistent with the requirements of the *Standards Manual for Archaeological Practice in Aboriginal Heritage Management* (NPWS 1997b).

Generally, reporting has been concerned with topography (whether sites, features or areas of potential sensitivity are located on slopes or flats etc), context, vegetation, ground exposures, and nature of ground visibility and extent of disturbance. The distinction between site categories (open campsites vs. isolated finds etc) and the definition of areas of potential sensitivity is determined according to the following categories:

- Isolated Finds consist of single artefacts that are located more than 50m apart.
- Sites comprise open artefact scatters that consist of two or more artefacts situated within 50m of each other.

Where appropriate, the following attributes of previously unrecorded stone artefacts that may be located during these investigations are to be recorded:

- Artefact Type: This category records the presence of flakes, flaked pieces and cores etc.
- Raw Material: Raw materials may include silcrete, indurated mudstone and quartz, etc.
- Dimensions: Maximum length, width and thickness of finds are to be recorded.
- Other: Comments include the presence of cortex and retouch etc.

In addition, frequently used criteria inclusive of landform, aspect, topography and subsurface integrity have also been used to define open areas of **Potential Archaeological Deposit**.

These are defined as areas with the potential to contain sub-surface deposits of Aboriginal stone artefacts, possibly without surface evidence of such artefacts.

Recognition, ascription and recording of scarred trees as being potentially of *definite, probable, or possible* Aboriginal origin is based upon the assessment criteria summarised by *Navin Officer* (1997a) and mindful of attribute guides described in Irish (2004) and Long (2005).

Any Aboriginal cultural material or relevant landscape features were plotted using site plans and a Garmin Geko 201 handheld GPS set to the AMG coordinate system.

4.2 Survey Units

For ease of description, and in recognition of the variable historical impacts to the area, the study area has been divided into four survey units as per **Figure 11** and the following descriptions:

Survey Unit 1 is approximately 44 hectares in size and comprises the fenced area of the former Airport site, including the runway, taxiways, associated access and internal roadways, and former airport hangars and buildings. This area is flat, completely cleared of all original timber and has been extensively impacted by the construction of the original airstrip and associated drainage works, and later expansion and formalisation of the airstrip as an airport [see **Section 2.3** and Aerial photography review].

Survey Unit 2 comprises the north western portion of the study area and is approximately 5 hectares in size. It contains the original course of the northern tributary of Hinchinbrook Creek as well as several excavated channels diverting water northeast across the north end of Survey Unit 1 and into the Hinchinbrook Creek corridor. This area is broadly flat and all timber is less than 50 years in age, with the possible exception of the immediate banks of the original tributary [Compare **Figure 6** and **7**].

Survey Unit 3 comprises the section of the western and eastern banks of Hinchinbrook Creek between the fenced airstrip area (Survey Unit 1) and Cowpasture Road, in which a new road and bridge connection to Cowpasture Road is proposed. This area has been spared the intensive impacts of the airstrip area to the west but has been stripped of original timber with the possible exception of the immediate creek corridor, and more recently has been impacted by roadworks along Cowpasture Road at its far eastern end. It is approximately 2.5 hectares in size.

Survey Unit 4 is approximately four hectares in size, comprising a roughly 1000m long by 40m wide strip of land between the fenced airstrip area (Survey Unit 1) and Hinchinbrook Creek. As with Survey Unit 3 this area has been cleared of all original timber except possibly along the immediate banks of Hinchinbrook Creek. Up to two east running drainage channels have been excavated to drain the airstrip into Hinchinbrook Creek in this area. It is otherwise relatively undisturbed.

Figure 11. Survey Units employed in the current study.

4.3 Field Observations

4.3.1 Survey Unit 1

This survey unit has been stripped of all original topsoil and/or consists of fill imported to raise the level of the airstrip (**Figure 12**). There is evidence across this area of excavated channels and buried culverts for drainage across the site (**Figure 13**). Although the non-tarmac areas are generally covered with pasture grass, there are regular exposures of ground demonstrating exposed subsoil/fill and no further stone artefacts were located (Figure 14)).

No areas of original landform were observed within this survey unit, and no mature trees are present.

Figure 12. View northwest across the former airstrip with new bulk storage facility under construction in background. Note the ground slopes up to the west (left) to the raised area of the tarmac runway and hangar buildings.

Figure 13. View west across the airstrip to the former airport buildings with concrete drainage channel in foreground.

Figure 14. Typical exposed area of lag gravels and clay subsoil/fill within Survey Unit 1.

4.3.2 Survey Unit 2

The area of **Site #45-5-0786** was relocated. It is located around a highly eroded and historically excavated creek diversion channel (Figure 15). There is good surface visibility and no stone artefacts were located (including any of those most recently recorded by JoMcDCHM 2009). Exposed profiles in the channel edge demonstrate the general lack of original topsoil with exposed clay subsoil and occasionally perhaps the lowermost 5-10cm of possible A2 horizon visible (**Figure 16**). No original A1 (topsoil) horizons were noted within the vicinity of **Site #45-5-0786**.

Figure 15. View east over the excavated creek diversion channel containing Site #45-5-0786, showing good surface exposure.

Figure 16. Indicative section of the excavated creek diversion channel in the vicinity of Site #45-5-0786 showing the lack of original topsoil and highly eroded nature of the channel.

Immediately south of this area is the southeast flowing original course of the northern tributary of Hinchinbrook Creek which was diverted by the excavated channel described above (**Figure 17**). No mature trees of sufficient age to contain scars of possible Aboriginal cultural origin are located in a small stand of timber around this creekline. Exposed ground in this area demonstrates the possible presence of partially disturbed to skeletal remnants of the original topsoil horizon, and a low density scatter of artefacts was collected during monitoring immediately to the south.

Figure 17. Original creek course at the southern end of Survey Unit 2.

4.3.3 Survey Unit 3

The potential alignment of the road and bridge between the fenced former airfield and Cowpasture Road on both sides of Hinchinbrook Creek was examined. Exposed ground in this area shows grey sandy loam which appears to represent an original topsoil horizon, though some areas contain only lag gravels on clay subsoil (**Figure 18**). Exposed sections along excavated drainage channels north and south of this survey unit suggest that this deposit could be of considerable depth (**Figure 19**).

Surface exposure was limited to walking tracks and clearings in this area, largely on the western side of the creek and no artefacts were seen (**Figure 20**). Except along the immediate banks of Hinchinbrook Creek, mature trees of sufficient age to bear scars of Aboriginal cultural origin are not present (**Figure 20**), and those along the creek do not bear such scars (**Figure 21**).

The eastern side of the creek is generally more disturbed with an uneven upper surface, though still seemingly containing the same sandy loam topsoil as the western side of the creek. The easternmost 50m of the proposed road route has been heavily impacted by the recent widening works along Cowpasture Road and original topsoil horizons do not appear to have survived (Figure 22).

Figure 18. Area of exposed clay subsoil and lag gravels within Survey Unit 3.

Figure 19. Section in excavated drainage channel north of Survey Unit 3 showing sandy loam topsoil horizon of seemingly large depth.

Figure 20. Typical ground on western side of Hinchinbrook Creek within Survey Unit 3 showing recent regrowth timber.

Figure 21. Creek course within Survey Unit 3 showing largely regrowth timber.

Figure 22. View east at eastern end of Survey Unit 3 (Cowpasture Road).

4.3.4 Survey Unit 4

The nature of proposed impacts in this area (if any) is yet to be finalised but are likely to be localised, and comprehensive survey of this area was not undertaken. The recorded location of Site #45-5-0774 was relocated (**Figure 23**) but the two artefacts originally recorded in 1989 were (not surprisingly) not found. However, although this site is located along an excavated drainage channel, surrounding areas demonstrate the presence of the same sandy loam topsoil noted above for Survey Unit 3 to the north, and it is likely that this represents a surviving original topsoil horizon (**Figure 24**).

Figure 23. View northwest over location of Site #45-5-0774.

Figure 24. Typical cleared area in Survey Unit 4 looking east to Hinchinbrook Creek.

4.4 Survey Characteristics & Archaeological Visibility

Calculations of effective survey coverage based on archaeological visibility and survey coverage are particularly useful in studies of reasonably large and topographically diverse areas of little subsurface historical disturbance. In areas such as these, potentially meaningful extrapolations can be made about the likely frequency, type and nature of Aboriginal archaeological remains across the entire study area, despite limited survey coverage and/or surface exposure.

However very low surface visibility typical of paddocks and other grassed areas means that these tabulations routinely provide for effective survey coverage of 5% or much less (often less than 1%). These are relatively meaningless figures, especially if there are other data (e.g. on historical disturbance, slope, erosion etc) which may be far more relevant for assessing archaeological potential. Effective survey coverage of Survey Units 2, 3 and 4 is certainly of this order but in all cases less relevant than the explanations of the presence/absence of surface archaeological evidence and potential, as discussion in **Section 5.**

Survey Unit 1 is particularly illustrative of this, having been subject to manifestly gross disturbance historically [buildings, roads, runways etc] and retaining no subsurface potential. Hence there was little reason to attempt to comprehensively examine all portions of Survey Unit 1, and calculations of effective survey coverage would be meaningless.

5.0 Results and Conclusions

5.1 Results of the Site Survey

The field survey did not result in the location of any previously unrecorded Aboriginal archaeological material. Specifically no additional stone artefacts were located and no trees of sufficient age to bear scars of potential Aboriginal origin were located (nor likely to occur on the basis of the historical data reviewed above). One area of subsurface archaeological potential, associated with elevated ground above Hinchinbrook Creek was defined as **HPA PAD1** as discussed below.

The positions of two previously recorded Aboriginal sites were relocated based on site descriptions, photographs and coordinates (see **Figure 25**). One site [HC6; **Site #45-5-0774**] is located east of the eastern fence of the former airstrip on the side of an excavated drainage channel. It comprised two stone artefacts at the time of recording in 1989. The position of the site was located but no artefacts were noted, nor were they by other surveys subsequent to the original recording of the site. Although these artefacts were clearly not recorded *in situ*, surrounding areas are likely to retain some subsurface archaeological potential, and have been assessed as part of **HPA PAD1** as discussed below.

The other site [HP1; **Site #45-5-0786**] was relocated but no additional Aboriginal artefacts were located. An assessment of the subsurface archaeological potential of this area is presented below.

5.2 Assessment of Archaeological Potential

5.2.1 The Nature of Archaeological Potential

The majority of Aboriginal archaeological sites in the south western Sydney region are open camp sites consisting of subsurface and/or surface scatters of stone artefacts. Assessment of the scientific value [rarity or representativeness] of sites within the current context would be generally based on observable surface content and the potential of the site to extend beyond the observable limits, laterally or vertically. Current site location models [e.g. stream order] can assist in determining whether a site is unusual or exhibits potentially important differences in a given context. These models in conjunction with landscape and land use information can also identify and grade areas of subsurface archaeological potential [Potential Archaeological Deposit or 'PAD'] which may have no surface evidence of sites but which might on investigation yield physical evidence such as stone artefacts.

It has been shown in the region that following archaeological excavation many open camp sites identified as surface scatters are more extensive, although not necessarily more significant or less disturbed. While it is possible further artefacts are present at any given location, not all locations will warrant further or detailed investigation by archaeological excavation. Whether a site warrants further investigation via archaeological excavation is usually determined on the basis of:

- lack of surface exposure in the vicinity of a site
- potentially artefact bearing undisturbed subsurface deposits (PAD)

- the importance of the site to the Aboriginal community

It has already been noted that archaeological sensitivity relates to the possibility that landforms might retain any archaeological evidence. Archaeological potential and the designation of an area as comprising PAD relates to whether a landscape might contain possible Aboriginal site locations which are also potentially undisturbed and retain scientific investigative potential.

5.2.2 Subsurface Archaeological Potential Within the Study Area

West of the Fenced Airstrip Area (Survey Unit 2/Proposed Detention Basin)

The historical aerial imagery reviewed for the current study and field survey have shown that the area around **Site # 45-5-0786** has been the subject of extensive disturbance by the diversion of the creek via an excavated channel and culverts under the airstrip and channels on the eastern side of the airstrip into Hinchinbrook Creek. Brayshaw and Rich [1996] noted old bulldozer scars were still visible at the time of their survey. Parallel bulldozer cuts are visible on the 1947 and 1951 aerial photographs which show the construction of the creek diversion. The majority of the trees in the area along the original creek and the diversion channel are relatively recent. The 1951 aerial shows very limited natural remnants or isolated trees along the creek lines. By 1978 these remnants had regenerated and expanded.

The recorded artefacts were located in the area to the north of the original creek course in the eroded and degraded cuttings of the creek diversion [see **Figures 15-17 Section 4.3.2**]. It is highly unlikely any significant and undisturbed potentially artefact bearing deposits will be located in this area, and this is supported by field observations of exposed clay subsoil and lag gravels in this area as described above.

A maximum total of 15 artefacts[16] have been recorded by three or more archaeological inspections of this area over the last 20 years despite excellent visibility and all are agreed on the lack of subsurface deposit in association with those artefacts and have recommended collection under a s90 Aboriginal Heritage Impact Permit, except JoMcDCHM (2009). However that study was not appraised of the historical land use data considered by the current study and therefore did not recognise the watercourse as an historically excavated channel some distance north of the original water course. Similarly, the recent (largely post-1978) age of the stand of trees in this area was not acknowledged. The definition of PAD by JoMcDCHM rests on these assumptions (ie the woodland indicated lack of past disturbance, and the documented artefacts are located adjacent to a watercourse), both of which have been shown in the current study to be false. There is then no subsurface archaeological potential in this area and the documented very low density artefact scatter does not warrant further investigation.

There some chance that further artefacts may occur in the vicinity of the original creek course, but these would be in largely disturbed contexts which do not warrant further archaeological investigation. Recent monitoring of earthworks in the vicinity of the original creek course

[16] Some of these may be duplicate recordings.

retrieved very low numbers of artefacts and none of the Aboriginal community representatives on site during the monitor regarded the results as warranting further archaeological investigation (Gordon Morton and Leanne Watson pers. comm. 26/11/09), nor has this been requested in the Aboriginal stakeholder comment received to date (see **Appendix 2**, response of DTAC, DCAC and DACHA).

The most appropriate archaeological management strategy in this area is therefore to allow collection of currently exposed surface artefacts and allow monitoring of earthworks associated with the proposed detention basin and access road in the vicinity of the original creek course.

Within the Fenced Airstrip Area (Survey Unit 1)

The current survey has found that there are **no** areas within the currently fenced airfield area which retain any archaeological potential which would warrant further archaeological subsurface investigation. The currently fenced airfield area includes the landing field and runways, associated buildings, hangers and access roads which are the areas proposed for industrial and business use and their associated infrastructure.

It is the conclusion of this study that the Airport site does not retain significant archaeological potential. The previous assessment of sensitivity [Heritage Concepts 2006; see also discussion above about the distinction between sensitivity and potential] does not adequately take into account past land use alterations as detailed in this report. The mapping of 'archaeological potential' by Heritage Concepts has defined as 'High Archaeological Potential' any area not currently overlain specifically by tarmac or existing structures, including areas of ground in between runways and taxiways. The review of historical aerial photography above makes it clear that subsurface impacts were severe across the entire fenced area during and after the initial construction of the airstrip. The extent and nature of construction activities has created surface and subsurface disturbance and disruption which has comprehensively disturbed any evidence of prior Aboriginal occupation. This is graphically illustrated by a comparison of the mapping of sensitivity by Heritage Concepts (2006:Figure 5.4) with Figure 6 and 7 of the current report, which demonstrates that supposedly un-impacted areas retaining 'High Archaeological Potential' have been subject to the same gross level of disturbance as the adjacent runway. The extent of that disturbance is confirmed by geotechnical testing at the site (subsequent to the Heritage Concepts study) which confirms the presence of a thick layer of introduced fill across the runway/taxiway areas. Elsewhere the current study has noted the lack of original topsoil and lag gravels on exposed clay subsoil (which may also be fill material).

The historical use of this area has produced disturbed landscapes where significant and undisturbed possible site locations are unlikely to have survived [refer **Section 4.3.2 Figures 15-17**].

East of the Fenced Airstrip Area (Survey Units 3 & 4)

This study has identified an area of potential archaeological deposit, **HPA PAD 1** [see **Figure 25**], within the former Hoxton Park Airport site. This relates to the relatively undisturbed main channel of Hinchinbrook Creek and the lands to the east of the current fence along the

eastern side of the airstrip. Concurrent investigations by MDCA of areas to the immediate north of the current study area have also determined this PAD to extend across that study area (MDCA in prep.). This area retains sandy loam topsoil deposits which are likely to represent original topsoil horizons with the potential to contain archaeological deposit. Although localised disturbance has occurred in this area (e.g. excavation of drainage channels, wartime usage as aircraft 'hides', tree clearance), and some areas were observed to be devoid of topsoil (with exposed lag gravels and clay subsoil), the area in general retains subsurface archaeological potential.

Further archaeological investigation by test pitting would be required within the PAD, if there were to be any impacts proposed which could cause ground or subsurface disturbances. Specifically the area east of the airfield boundary fence which is proposed for a road/bridge linking the Cowpasture Road with the development site is recommended for test excavation. A 50m buffer on either side of the construction area should be covered by the archaeological investigation to ensure no indirect impacts occur. Similarly, once the nature of any impacts relating to possible drainage works in this area is known, test excavation of these areas of proposed impact is also likely to be required.

5.2.3 Information from Aboriginal Community Consultation

All Aboriginal groups consulted during the current study were specifically asked to provide and/or discuss any Aboriginal cultural or historical information which they felt was pertinent to the assessment of Aboriginal heritage significance in relation to the current proposal. No such information (e.g. about historical Aboriginal associations with the area) was noted during onsite discussions or in correspondence received at the time of draft or final reporting. Comments from the Aboriginal community stakeholders all relate to the archaeological site management.

5.3 Aboriginal Archaeological Assessment

5.3.1 Summary of The Known and Potential Archaeology

As indicated in **Figure 25** the known Aboriginal archaeological remains within the study area consist of two surface artefact scatters, both in disturbed contexts.

One of these (HC6; **Site #45-5-0774**) is located on the side of an excavated drainage channel, however adjacent undisturbed deposits form part of the identified area of potential archaeological deposit labelled **HPA PAD1** comprising the relatively undisturbed portions of the banks of Hinchinbrook Creek assessed during the current study and an adjacent concurrent study immediately to the north (MDCA *in prep*).

The other site (HP1; **Site #45-5-0786**) is located in a totally disturbed context surrounding an historically excavated creek diversion channel with no associated subsurface archaeological potential. The original course of the creek to the south retains low potential for surface and potentially partially disturbed and shallow subsurface artefacts, as have been collected during recent adjacent site monitoring (see above).

5.3.2 Significance Assessment

Assessment of Aboriginal archaeological sites is based on three broad criteria. Namely, that they important to:

- the scientific community for their potential research value
- the general public for their educational and broader heritage value
- the Aboriginal community as representing physical links to their past.

The current study has found there is no Aboriginal or scientific significance of the place in terms of known archaeological evidence or specific Aboriginal historical links to this area. This discussion does not include a consideration of HPA PAD1, the archaeological content of which (if present) is not yet known or quantifiable.

Intact and extensive material evidence of Aboriginal use of the area has not been found at the former Hoxton Park Airport site. This is clearly the result of the intensive historical land use of the site. Aboriginal historical records of the post contact history in Liverpool do not show specific reference to this land before or during its use as an Airport. None of the registered Aboriginal stakeholder groups have referred to any significant or remembered history pertaining to this site and none refer to the known archaeological resources as significant or requiring any management other than that recommended by the Aboriginal Archaeological Management Plan documented in this report.

The seven criteria on which the following Statement of Significance is based are summarised below:

- Criterion (a) is important in the course, or pattern, of NSW's cultural or natural history;
- Criterion (b) has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history;
- Criterion (c) is important in demonstrating aesthetic characteristic and/or a high degree of creative or technical achievement in NSW;
- Criterion (d) has strong or special association a particular community or cultural group in NSW for social cultural or spiritual reasons;
- Criterion (e) has potential to yield information that will contribute to an understanding of NSW's cultural or natural history;
- Criterion (f) possess uncommon, rare or endangered aspects of NSW's cultural or natural history;
- Criterion (g) is important in demonstrating the principal characteristics of a class of NSW's cultural places or natural environments.

5.3.3 Application of Significance Criteria

Criterion a: The place and broader setting demonstrates intermittent or occasional Aboriginal presence in the past. Important historic Aboriginal associations are not known from the

historical records or the contemporary Aboriginal community. The composition of the current Aboriginal community is a result of the effects of the early disruption caused by disease and white settlement where predominantly Darug and possibly Dharawal people came to reside in what is likely to have been the eastern and north western extent of their territory where they might have maintained ceremonial and social obligations into the historic period, but which were quickly disrupted.

Criterion b: At a community level the former Hoxton Park Airport has little or special association to the Aboriginal community. At best it may have represented a place of Aboriginal employment during its construction and operational years.

Criterion c: n/a

Criterion d: n/a

Criterion e: Further archaeological investigation in areas not previously disrupted by past land use may provide more detailed information on specific Aboriginal site location preferences, resource use and activities at camping sites.

Criterion f: Neither of the known sites could be assessed either as rare or of scientific/archaeological significance even at a local level.

Criterion g: n/a.

5.3.4 Summary Statement of Aboriginal Cultural Heritage Significance

The evidence of the Aboriginal occupation of the area now occupied by the former Hoxton Park Airport is limited in extent and concentration and is limited to the prehistoric past. It is of low to negligible archaeological significance. The contemporary Aboriginal community do not regard the evidence as significant except as general demonstration that at some time in the past Aboriginal people made use of this land.

Table 2. Previous and current management recommendations for Aboriginal heritage sites in and adjacent to the current study area.

AHIMS Site #	Site Name	Site Recorder	Site Assessment	Recommendations
45-5-0774	HC6	Smith 1989b	Disturbed creek bank	s90 Consent (Collect/Destroy)
		Heritage Concepts 2006	Not assessed	s90 Consent (Collect/Destroy)
		Current MDCA Study	Probably extant but not *in situ*. May be associated with subsurface potential in adjacent undisturbed areas	Protect if possible. Collect if to be impacted. Also requires consideration in current Vegetation Management Plan.
45-5-0786	HP1	Smith 1989b	Poor condition. No potential	s90 Consent (Collect/Destroy)
		Brayshaw & Rich 1996	Noted prior bulldozing for creek diversion. No potential	s90 Consent (Collect/Destroy)

AHIMS Site #	Site Name	Site Recorder	Site Assessment	Recommendations
		Heritage Concepts 2006	Not assessed	s90 Consent (Collect/Destroy)
		Jo MDCHM 2009	Identified potential for subsurface artefacts	Preserve or s90 AHIP with salvage.
		MDCA in prep	Major historical disturbance and observed lack original topsoil. No potential except low potential along original creekline.	monitoring of site works artefact collection under the supervision of the registered Aboriginal Stakeholders.
45-5-2305	P-CP5	Brayshaw & Rich 1996	No potential	Destroyed under M7 s90.AHIP
45-5-2474	IF6	Brayshaw & Rich 1996	No potential	Destroyed under M7 s90.AHIP
45-5-3079	HPA-1	AMBS Barton 2001	In graded area with no potential.	None specific/further survey recommended
		Heritage Concepts 2006	Not assessed	s90 Consent (Collect/Destroy)
		MDCA in prep.	In graded area with no potential	S90 AHIP with artefact collection if sought by Aboriginal Stakeholders.
45-5-3080	HPA-IF1	AMBS Barton 2001	Probably not in situ associated with gravel quarry. None specific/further survey recommended	Destroyed under M7 s90.AHIP
45-5-3124	CP10	AHMS 2005	No potential	Collected under a s90 AHIP
45-5-3138	IF6	AHMS 2005	No potential	Collected under a s90 AHIP
Not Registered	HP1, HP2, HP3, HP4, HP5, HP6	Heritage Concepts 2006	Note: These located in vicinity of #45-5-3079 but not acknowledged as such. Assessed as 'High Archaeological Potential'	Further investigation under s87
		MDCA in prep	Part of **Site #45-5-3079**. Associated with lag or introduced laterite gravels on Tertiary clays. Not in situ. No further potential	S90 AHIP with artefact collection in conjunction with **Site #45-5-3079** if sought by Aboriginal Stakeholders.

5.4 Formulation of Management Plan

The Aboriginal archaeological management plan presented below has been formulated in consideration of the following:

- The requirements of EP&A Act 1979 Part 3A project assessment and approval.
- current development plans for the subject lands [see **Figure 3 & 4**]

- field survey in partnership with registered Aboriginal stakeholder groups.
- continuous consultation with the registered Aboriginal stakeholder groups, including a request for their review and comments on a Draft version of the Aboriginal Archaeological Management Plan [see Appendix 2 for the Aboriginal community stakeholder formal responses]
- review of a number of previous archaeological assessments conducted within the study area, since 1989, which documented a number of Aboriginal heritage items on or adjacent to the land [see **Tables 1 & 2**].
- The significance of the documented archaeological remains within the study area
- significance and management of other Aboriginal sites in similar contexts in the local area
- refinement of the identified archaeological sensitivity to a more focussed definition of archaeological potential [PAD].
- best archaeological management practice and a consideration of management alternatives

Preservation of Aboriginal heritage sites and places is desirable in the absence of other competing priorities. In the current case, the two documented Aboriginal sites within the study area are in disturbed contexts with no associated subsurface archaeological potential, are locally common and of low local significance and retain no scientific/archaeological significance. Given this, collection and recording/analysis of artefacts from these sites with adequate recording would be an acceptable Aboriginal heritage management outcome.

It is currently known that site HP1 (**Site #45-5-0786** is proposed to be excavated as a detention basin, which would destroy this site. Given its low to negligible scientific potential an appropriate management strategy would be to collect the artefacts at this location. Collection is a strategy endorsed by the registered Aboriginal stakeholder groups.

It is not yet known whether site HC6 (**Site #45-5-0774** is to be impacted. This is dependent on as yet undetermined requirements for site drainage. Should impacts be proposed, collection and recording of the artefacts at this locality is proposed. It is noted that such impacts are also likely to extend to adjacent undisturbed areas within the assessed area of subsurface archaeological potential (**HPA PAD1**) and would therefore require archaeological test excavation. Collection of HC6 (**Site #45-5-0774**) would take place after the results of this test excavation are known.

The management of these sites is consistent with others in the local area, which have previously been the subject of collection and/or archaeological salvage (see **Table 2**). One disturbed low density surface scatter immediately north of the current study area (HPA-1; **Site #45-5-3079**) is the subject of a contemporaneous assessment with the recommendation of collection and recording under an NPW Act s90 permit (MDCA *in prep*.: noting that that area is not to be assessed a major project under the Part 3A provisions of the of the EP&A Act).

Almost all of these sites have been poorly preserved isolated artefacts or low density surface scatters with little or no associated subsurface potential. Better preserved sites appear to be

located along the creek corridors, or elevated flat ground where arguments for partial or total preservation could be made.

Management of **HPA PAD1** would be determined following the test excavation of deposits within its boundaries. Where significant materials are unearthed appropriate management outcomes would be sought, including the possibility of permanent preservation. If this is not possible salvage excavation would be recommended at a scale commensurate with the nature of the deposit and the scale of proposed impact, in consultation with the registered Aboriginal stakeholder groups.

It is noted that to date the management strategy as set out in the Aboriginal Archaeological Management Plan has been fully endorsed by the Registered Aboriginal Stakeholder groups.

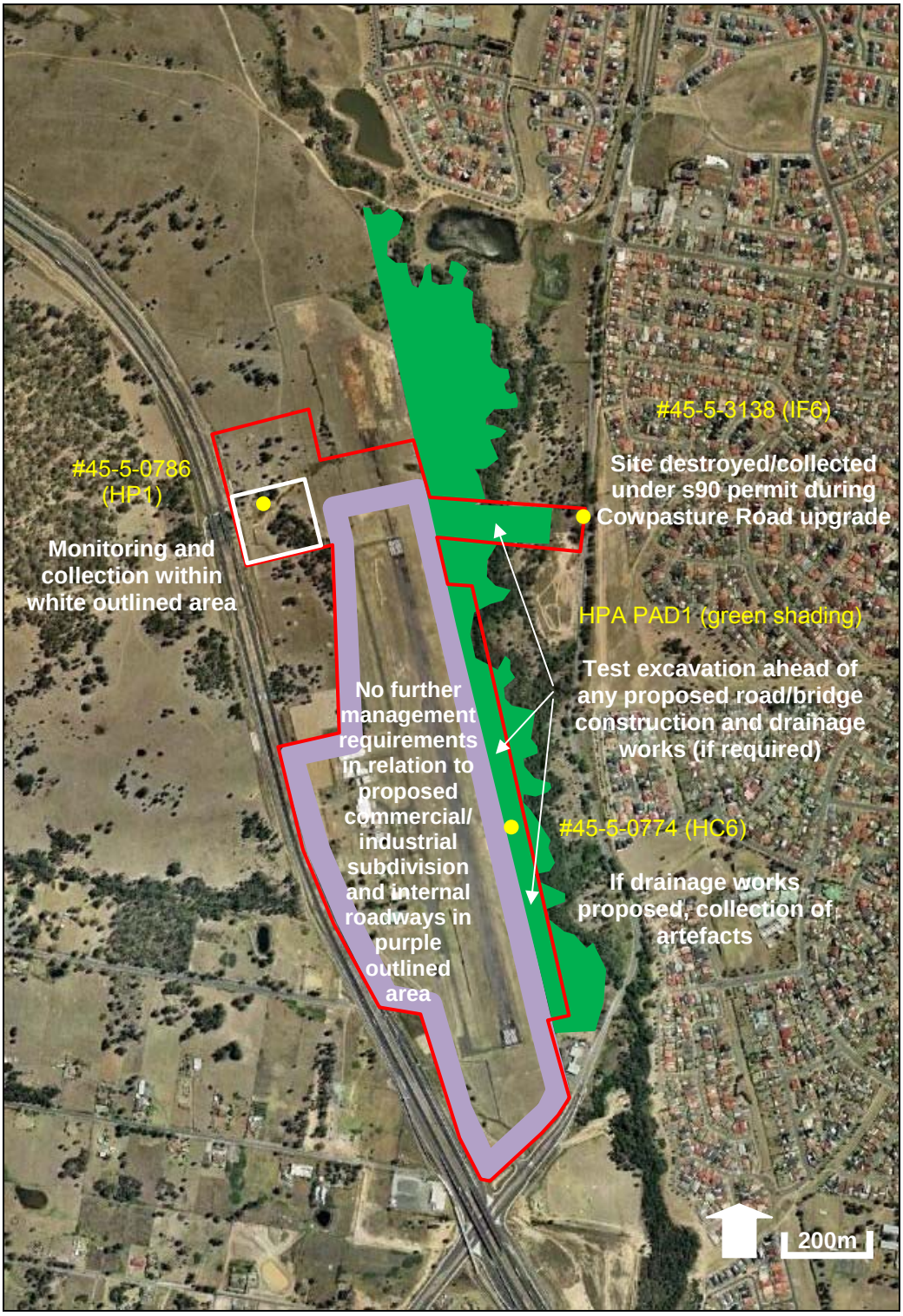

Figure 25. Proposed management of Aboriginal sites and area of archaeological potential in relation to the current proposal.

5.5 Aboriginal Archaeological Management Plan

The Mirvac Group proposal is being planned as a major project to be determined under Part 3A of the *Environmental Planning & Assessment Act, 1979,* and as such will not require DECCW AHIP/Part 6 approvals under the *National Parks & Wildlife Act 1974 [as amended].* The Aboriginal Archaeological Management Plan specifies further archaeological investigative works requiring excavation, artefact collection and monitoring by Aboriginal community stakeholders in some areas in parts of the development site. While no AHIPs are required under Part 3A a summary statement of excavation methodology and a burial protocol is provided in **Appendix 1**.

The Aboriginal Archaeological management Plan has been developed in consultation with the Registered Aboriginal Community Stakeholders. The consultation was undertaken in full compliance with the DECCW interim guidelines for Aboriginal community consultation, including additional contact with possible persons of interest suggested by the DECCW [see **Section 1.5**]. Formal responses have been received by DTAC, DACHA, DCAC and the Gandangara LALC [see Appendix 2] The additional suggestions by DECCW of additional organisations to consult, Yarawalk and the DLO yielded a response only from Yarawalk. All respondents support the Aboriginal Archaeological Management Plan [see **Appendix 2**].

Figure 25 summarises the actions required at specified locations.

The following actions are required to manage the Aboriginal archaeological resources likely to be impacted by the Mirvac Group proposed developments within the former Hoxton Park Airport site. Appendix 1 provides the proposed methodology for these investigations.

Management Actions

- Mirvac Group afford the Registered Aboriginal Stakeholder groups, the GLALC, DTAC, DCAC and DACHA the opportunity to monitor earth works in the vicinity of **Site # 45-5-0786** and the proposed detention basin as per **Figure 25** and make a collection of any cultural items as may be unearthed. These actions should be undertaken in conjunction with initial earthworks and the Aboriginal stakeholder groups should be given adequate notice of when these are likely to commence.
- Mirvac Group undertake subsurface archaeological investigation in the form of test excavation of any portions of **HPA PAD 1** proposed for impact, including the proposed M7-Cowpastures Road link road/bridge corridor and any possible future drainage works within the area of **HPA PAD 1**. These test excavations should precede any physical development works to the east of the current airstrip boundary fence. Dependent on the results of these test excavations, documented Aboriginal archaeological remains may be determined to require partial or total preservation or further partial or total salvage excavation.
- If impacts to AHIMS Site **#45-5-0774** are proposed in relation to drainage works in this area, Mirvac Group, through the Registered Aboriginal Stakeholder groups collect the stone artefacts comprising the site at this location.

- Any bushland regeneration or weed reduction program as may be proposed in the current Vegetation Management Plan [VMP] and which cover the Hinchinbrook Creek corridor would need to take into account registered Aboriginal sites and areas of archaeological potential, as outlined in **Figure 25**.
- All proposed archaeological works, namely artefact collection, proposed monitoring of certain earthworks and archaeological test excavation and artefact archival storage, should be conducted according to the 'Strategy for Proposed Archaeological Investigations' contained in **Appendix 1** of this report and be undertaken in partnership with the Registered Aboriginal Stakeholder groups.
- MDCA submit a Statement of Commitments to the Mirvac Group reflecting the recommended Aboriginal heritage management actions specified in this Aboriginal Archaeological Management Plan [see below].
- Registered Aboriginal Stakeholder groups to supply formal written comments on the Aboriginal Archaeological Management Plan for submission to Department of Planning with the final Aboriginal Archaeological Assessment Report for the project [see Appendix 2].
- AHIMS Records of any impacted registered sites are to be updated and submitted the DECCW AHIMS Registrar. These records will note what the Registered Aboriginal Stakeholder groups agreed to with respect to long term storage of any collected artefacts.

Statement of Commitments – Aboriginal Heritage

The Mirvac Group will manage the Aboriginal Heritage on the Part 3A lands of the former Hoxton Park Airport site according to best archaeological practice and in consultation with a fully qualified archaeologist and the Registered Aboriginal Stakeholders, the GLALC, DTAC, DCAC and DACHA. The Aboriginal Archaeological Management Plan described in the current MDCA February 2010 report [Section 5.5], will form the basis of the heritage management.

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Appendix 1 : Strategy for Proposed Archaeological Investigations.

1. Monitoring and Collection Strategy

Any artefacts identified during collection of known surface sites or monitoring of initial earthworks will be subject to field recording (GPS location and photograph taken, and record of artefact type, raw material, size, cortex and platform type made) prior to collection.

These records will be submitted as part of a revised site recording to the DECCW AHIMS Registrar. This will also record the long-term storage location of the collected artefacts, as decided by the Aboriginal stakeholder groups. This will be decided upon completion of the archaeological test excavation program of **HPA PAD 1** as discussed below.

2. Test Excavation Strategy

HPA PAD 1 is an area proposed for test excavation within the Hinchinbrook Creek corridor. Known proposed impacts relate to the construction of a road and bridge link across the corridor. Possible impacts may also arise from the construction of additional drainage works in the event current drainage channels are insufficient and additional tail outs need to be constructed.

HPA PAD 1 has the potential to contain buried archaeological deposit because it retains alluvial deposits which in part are relatively undisturbed. It is not known nor can it be accurately predicted on the current evidence that significant intact Aboriginal remains will be located in the designated PAD, however we can predict that any remains present are likely to be restricted to stone artefacts and other occupation material (e.g. charcoal, hearths).

The program of excavation would be restricted to the areas proposed for road/bridge construction and to any future designated area of drainage works.

The archaeological investigation could be undertaken using mechanical excavation via a series of 1x5m trenches spaced on a 20m grid along the road alignment within the Hinchinbrook Creek corridor. Excavations within any future proposed tail outs areas would be designed to investigate the areas of possible impact of those particular works. It is likely these excavations would be less than 1.5m deep.

The investigation would be undertaken under the Research Design and Burial Protocol included below which recognises that there may be historical archaeological considerations and the remote possibility that human remains may be unearthed. In the event historical archaeological items are identified, such as surviving elements of the historic use of the wartime use of Hoxton Park Airport as may have been located within the Hinchinbrook Creek corridor, these would be assessed, analysed and managed in consultation with a suitably qualified Historical Archaeological consultant in tandem with the Aboriginal archaeological investigations.

Archaeological Research Design

The testing program could be undertaken in two Stages. Stage 1 would cover the investigation of the road corridor and the bridge/creek crossing. Stage 2 [if required] could cover any investigation of areas as may in the future be proposed for additional drainage works.

Aims of the Proposed Archaeological Testing Program

The principal objective of the subsurface testing program would be to determine if Aboriginal cultural remains are located within the defined area of **HPA PAD 1** that would be impacted upon by the proposed works within the Hinchinbrook creek corridor. Specifically the testing program would aim to determine, through adequate sampling, whether any Aboriginal cultural remains exist within the area, and if so, their extent and significance. The testing program would also determine the need and extent of any further archaeological requirements (e.g. salvage or collection).

Research Questions

The following questions, necessarily broad in nature at this stage, are proposed to structure the excavation methodology and post excavation analysis and reporting.

How long have Aboriginal people used the land? Radiometric dating (of materials such as charcoal from hearths, thermoluminescence dating of buried sands) and recovery of certain artefact types (such as backed blades) would provide an indication of how long Aboriginal people have used this landscape.

How did Aboriginal people use the area? Analysis of the stone tools, site formation processes, location of specific activity areas would seek to retrieve the maximum possible information about how the area was used in the past, particularly in relation to freshwater swamps which may have existed in relatively close proximity.

What stone materials were chosen and how were they worked? The stone artefact analysis would attempt to source the raw materials used and to determine their relative proportions amongst the excavated samples. Technological information regarding possible raw material reduction would be sought. Evidence for silcrete minimal decortication and possibly heat treatment may be expected, whilst evidence for primary and secondary flaking and bipolar knapping using anvils may also be revealed.

What types of artefacts were produced? Adherence to standard procedures and protocols in quantifying and classifying the recovered stone artefacts would provide a means to determining what artefact types were produced and/or discarded on-site.

What were different artefact types used for? Functional analysis of potential residue/use-wear evidence on selected samples of stone and or shell artefacts may provide an indication of what different artefacts were used for.

How does this place compare to other Aboriginal sites in the surrounding region? Inter-site comparison of the excavated stone artefact assemblage (and their component parts)

Do any Historical archaeological elements remain in the area which might require specialist Historical archaeological consideration, including detailed recording.

Field Methodology

The following archaeological testing methodology is proposed. Archaeological investigations would utilise a combination of mechanical and manual testing methods. Manual testing and detailed recording would be specifically employed in the event of the discovery of archaeological features or buried former land surfaces, or significant historical archaeological features (in conjunction with an appropriately qualified Historical Archaeological consultant).

A mechanical excavator with batter bucket would be used to excavate a series of archaeologically monitored test trenches on a 20m grid across the area of PAD. These trenches would be approximately 0.5m in width and 1-2m in length. Maximum depth is anticipated to be significantly less than 1.5m but if greater (and therefore in excess of Occupational Health and Safety Act limits), stepped /benched trenches or shoring would be used.

The trenches would be excavated in 0.1m-0.2m spits through the alluvial deposits until any archaeological features (including burial cuts) or buried former land surfaces are located, or else until archaeological sterile horizons (clay subsoil) or bedrock are reached. Any archaeological features (excepting human remains – see below) would be recorded and potentially manually excavated using standard archaeological techniques and recording methods (e.g. where appropriate arbitrary 0.05m-0.1m spits or following stratigraphy).

A sample of twenty 10L buckets of deposit from each spit of each mechanically excavated trench would be wet-sieved onsite using nested 2.5 and 5mm sieves to retrieve any Aboriginal archaeological material. This would be sufficient to determine the presence/absence and general density of any Aboriginal archaeological remains within the areas tested

All cultural material and samples of matrix deposit will be bagged and labelled. Soil profiles will be recorded and pH tests will taken at intervals throughout the stratigraphic profile. Post excavation handling, analysis and storage of retrieved items, excluding human remains, would be undertaken according to methods and outcomes agreed upon between the registered Aboriginal stakeholder groupsand the Mirvac Group. This may include reburial at an agreed upon place within the creek corridor which could be managed for preservation in the long term. At this time, similar discussions would be undertaken regarding artefacts collected during collection/monitoring works as described in **Section 1**.

This is considered sufficient to determine the presence/absence of any Aboriginal cultural remains and to characterise the nature and extent of any such remains if located as a basis for management decisions in relation to the current proposal (e.g. preservation of documented remains, partial/complete salvage, destruction).

Burial Protocol

In the event a modern or ancient grave cut or burial is identified the excavation will cease and the procedure outlined in **Figure 1** will be applied to ensure appropriate management of human skeletal material whether or not it is associated with an Aboriginal archaeological site.

These protocols are based on the following legislative provisions:

Aboriginal skeletal remains are protected by the NSW National Parks & Wildlife Act 1974 as amended. It is an offence to disturb or damage or destroy Aboriginal skeletal remains.

The Coroner's Act 1980 [s13B and s13C] applies to deaths in NSW which have occurred over the last 100 years. This Act takes precedence over the NPWS Act. If human remains are determined to be Aboriginal and less than one hundred years old they should be treated as a potential crime scene. If Police believe that an Aboriginal site was a crime scene [ie., a site containing a suspicious burial and that the skeletal remains are less than 100 years old, they will work with NPWS [now Department of Environment Conservation Climate Change and Water [DECCW], to ensure Aboriginal sites are not needlessly disturbed during their criminal investigations.

A suitably qualified Physical Anthropologist should be on site throughout the course of subsurface test excavations to determine:

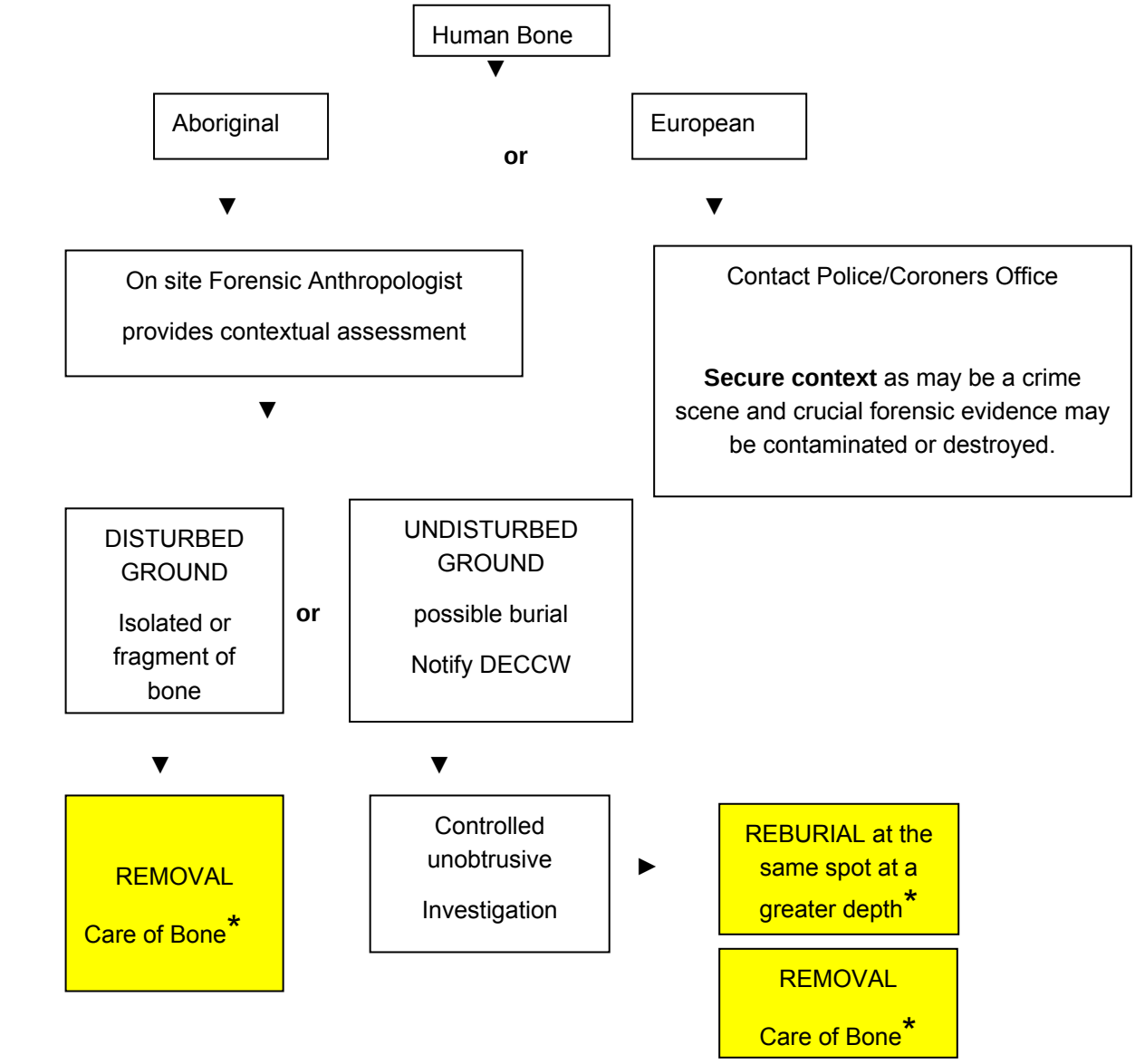
1. whether the bone is human or animal, and

2. if human, whether the bone is Aboriginal or European.

If the bones are determined to be European or young or relatively recent Aboriginal bones showing signs of a suspicious or violent death, the Coroner's Office has jurisdiction over such remains. Further investigation must be done under that Office's direction.

The discovery of Aboriginal skeletal material is regarded as an exceptional circumstance In archaeological investigations. While under Part 3A projects DECCW s.87 or s.90 AHIPermits are not required, the discovery of Aboriginal burials in the circumstance of a Part 3A development project, should involve consultation with DECCW. The Burial Discovery Protocol identifies agreed and permissible actions in the field.

Figure 1 : Burial/Human Bone Discovery Procedure for Part 3 A projects.



*** These procedures to be determined by the registered Aboriginal Stakeholder groups for this project.**

Appendix 2

Aboriginal Community Consultation Records

1.1 Public Notification

1.2 List of government authorities and other organisations contacted for this project and letters of notification

1.3 Registered Aboriginal Stakeholder reports

1.4 Other correspondence

1.1 Public Notification

PUBLIC NOTICE

Registration of Interest – Aboriginal Heritage Project

Mary Dallas Consulting Archaeologists (MDCA) on behalf of HPAL Freehold Pty Limited is seeking registrations of interest from Aboriginal groups or individuals with respect to Part 6 Approvals under the *National Parks & Wildlife Act 1974* for several Aboriginal objects at the Hoxton Park Airport site, at Cowpasture Road, Hoxton Park.

Any Aboriginal person or organisation wishing to register their interest is invited to do so in writing to MDCA by Wednesday 23rd December 2009. All registrations must include a current contact person and contact details.

Registrations to MDCA at 31 Waterview Street, Balmain NSW 2041 or fax (02) 9818 4574. Enquiries to Mary Dallas on (02) 9818 3287 or Paul Irish on 0418 450 490.

Placement Details

Liverpool Leader on 9.12.09 Cumberland Classifieds Booking # 2284526

1.2 List of government authorities and other organisations contacted for this project and sample letter of notification

Initial letter mail out on 4.12.10 (as per DECC 2004 guidelines) see sample letter following]

- The Office of the Registrar of Aboriginal Corporations (DAA)
- NTSCorp
- The Department of Environment, Climate Change & Water (DECCW)
- Liverpool City Council
- Gandangara Local Aboriginal Land Council

Telephone confirmations of stakeholder status to the following groups:

Gandangara LALC

Darug Aboriginal Cultural Heritage Assessments

Darug Custodian Aboriginal Corporation

Darug Tribal Aboriginal Corporation

Additional letters to two additional possible persons of interest [supplied by DECCW]

Gordon Workman

Scott Franks

Sample letter

The Registrar of Aboriginal Owners
NSW Department of Aboriginal Affairs
Level 13, Tower B
280 Elizabeth Street
Surry Hills NSW 2010

Dear sir/madam,

6.1.1.1.1 RE: ABORIGINAL CULTURAL HERITAGE PROJECT AT HOXTON PARK AIRPORT

We are writing to notify you of an impending application for Part 6 Approvals under the *National Parks & Wildlife Act 1974* for registered Aboriginal objects within the Hoxton Park Airport site, at Cowpasture Road, Hoxton Park, to the west of Liverpool in southern Sydney. The application is being prepared by MDCA [Mary Dallas Consulting Archaeologists] on behalf of HPAL Freehold Pty Ltd.

In accordance with the NSW Department of Environment, Climate Change & Water's 2004 Interim Community Consultation Requirements for Applicants, MDCA wishes to identify Aboriginal organisations or individuals with specific traditional or historical links to the study area, as they may wish to have input into the permit application process.

To this end we have placed public notifications in the Liverpool Leader newspaper for publication on 9 December 2009. It is noted that the Gandangara Local Aboriginal Land Council and Native Title Claimant groups relevant to the area (as represented by the Darug Tribal Aboriginal Corporation, Darug Custodians Aboriginal Corporation and Darug Aboriginal Cultural Heritage Assessments) have been consulted throughout the project and will have input into the application.

Could you please assist us further in this process by providing us with the details of any Aboriginal individuals or organisations in addition to those above of whom you are aware that have specific traditional or historical links to the area so that we can ensure that all relevant parties are contacted.

Under the above Interim Community Consultation Requirements we require that you submit in writing the following details of any such organisation or individuals:

- Name
- Contact Person (if an organisation)
- Current Address
- Current Contact Details (phone number/fax/email)
- A brief description of the nature of their connection to the study area (ie Registered Native Title Claimant, Registered Aboriginal Owner, historical connection)

If any of these details are not known to you, please state this explicitly in your submission.

The closing date for these submissions is Wednesday 23 December 2009. All submissions should be directed to:

Mary Dallas Consulting Archaeologists
31 Waterview St
Balmain NSW 2041

or by fax to (02) 9818 4574.

Any enquiries should be directed to Mary Dallas on (02) 9818 3287 or Paul Irish on 0418 450 490.

Yours sincerely,

Mary Dallas
Mary Dallas Consulting Archaeologists
[4.12.09]

1.3 Registered Aboriginal Stakeholder reports

GLALC

DTAC

DCAC

DACHA

DARUG TRIBAL ABORIGINAL CORPORATION

PO Box 441
Blacktown, NSW, 2148
PH/Fax: (02) 9622 4081
Mobile 041 543 9326
Email: darug_tribal@live.com.au
ABN: 77 184 151 969 ICN: 2734

16/1/2010

Dear Mary Dallas

Re: Former Hoxton Park Airport Mirvac Group Part 3a Industrial & Business Sub Division

Site # 45-5-0786 we would like to see the artefacts for this site collected.

We agree that sub surface testing should take place within HPA PAD 1 within the bridge road corridor

WERE THE

We support the Draft Archaeology Management Plan site & we agree with all the recommendations and look forward to future updates.

Hugs & Smiles

Sandra Lee

Secretary

Darug Tribal Aboriginal Corporation

DARUG
THE TRADITIONAL CUSTODIANS OF DARUG LAND

www.darug.org.au

DARUG CUSTODIAN ABORIGINAL
CORPORATION
PO BOX 81 WINDSOR 2756
ABN: 81935722930
PH: 45775181 FAX: 45775098 MOB: 0415770163
mulgokww@aol.com

18 January 2010

Attention: Mary Dallas.

SUBJECT: Mirvac Part 3A Subdivision, Former Hoxton Park Airport- Draft Archaeological Management Plan.

Dear Mary,

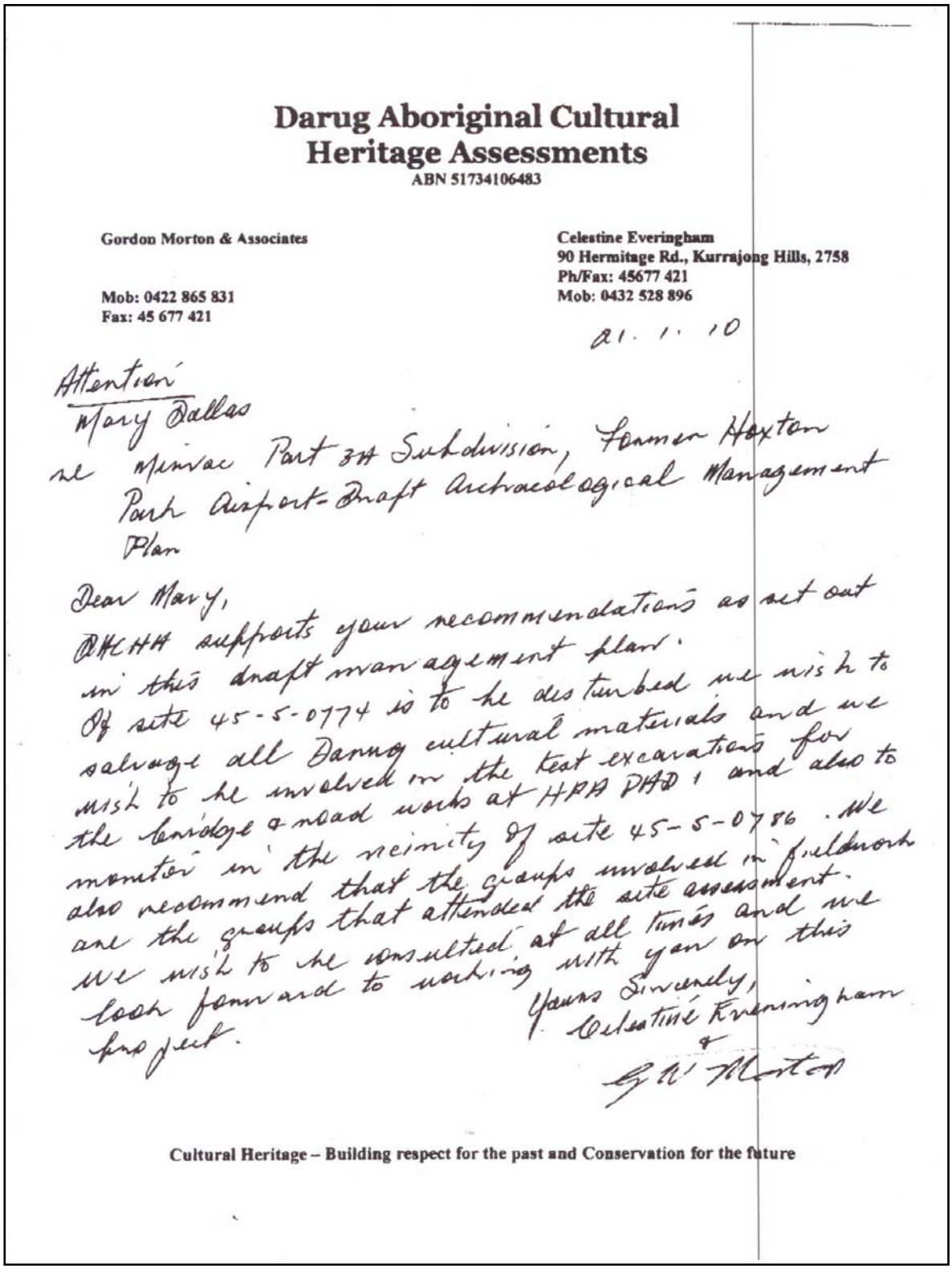
The Darug Custodian Aboriginal Corporation have received the summary of information for the Mirvac Part 3A Subdivision - Draft Archaeological Management Plan.

Our group supports the findings and recommendations set out in this draft management plan. The areas that have been recommended for collection and monitoring is a recommendation that we request as a management condition for the residential subdivision.

Our group wish to be involved in the test excavations for the road/bridge works at HPA PAD1, also in the monitoring in the vicinity of site 45-5-0786. If site 45-5-0774 is impacted we also wish to collect all materials of Aboriginal Cultural Heritage. We also recommend that the groups involved in fieldwork are the two groups that attended the site assessment.

We look forward to working with you on this project please do not hesitate to contact us with all enquiries on the above numbers.

Regards
LWat
Leanne Watson



Darug Aboriginal Cultural Heritage Assessments
ABN 51734106483

Gordon Morton & Associates

Mob: 0422 865 831
Fax: 45 677 421

Celestine Everingham
90 Hermitage Rd., Kurrajong Hills, 2758
Ph/Fax: 45677 421
Mob: 0432 528 896

21. 1. 10

Attention
Mary Dallas

re Minvac Part 3A Subdivision, Former Hoxton Park Airport- Draft Archaeological Management Plan

Dear Mary,

DHCHH supports your recommendations as set out in this draft management plan.

If site 45-5-0774 is to be disturbed we wish to salvage all Darug cultural materials and we wish to be involved in the test excavations for the landscape & road works at HPA PHD 1 and also to monitor in the vicinity of site 45-5-0786. We also recommend that the groups involved in fieldwork are the groups that attended the site assessment. We wish to be consulted at all times and we look forward to working with you on this project.

Yours Sincerely,
Celestine Everingham
&
G. A. Morton

Cultural Heritage – Building respect for the past and Conservation for the future

GANDANGARA
local aboriginal land council

Mary Dallas
Consulting Archaeologists
31 Waterview Street
Balmain NSW 2041

By email: mdca.archaeologists@gmail.com

February 2, 2010

Attention: Paul Irish

RE: **Part 3A Subdivision – Draft Archaeological Management Plans for the Hoxton Park Airport site, Hoxton Park**

Parties: **Mirvac Group**

Dear Paul,

Thank you for your letter of 14 January 2010 re the above respective Pt 3A Subdivision application by the Mirvac Group.

Re Site 45-5-0786

Bullet-point 1[1]

"Mirvac Group afford the registered Aboriginal community Stakeholders the opportunity to monitor earth works in the vicinity of Site 45-5-0786 [and the proposed detention basin as per Figure 2] and make a collection of any cultural items as may be unearthed. These actions should be undertaken in conjunction with initial earthworks and the Aboriginal community stakeholders should be given adequate notice of when these are likely to commence."

GLALC supports the above recommendation. Further, the GLALC would welcome and would accept the opportunity to monitor earth works on the abovementioned site and to undertake / arrange for collection of any cultural items as may be unearthed.

[1] *At page 7 – per heading '5 Draft Archaeological Management Plan*

103 Moore St, Liverpool NSW 2170 • PO Box 1038, Liverpool Business Centre 1871 • Phone: (02) 9602 5280, Fax: (02) 9602 2741
Email: admin@glalc.org.au • ABN 59 476 858 149

Re Site 45-5-0774

Bullet-point 2[2]

Mirvac Group undertake subsurface archaeological investigation in the form of test excavation of any portions of HPA PAD 1 proposed for impact, including the proposed M7-Cowpasture Road link road/bridge corridor and any possible future drainage works within the area of HPA PAD 1. These actions should precede any works proposed to the east of the current airstrip boundary fence.

Bullet-point 3[3]

If impacts to Site 45-5-0774 are proposed in relation to drainage works in this area, Mirvac Group collect the stone artefacts comprising the site at this location.

GLALC supports the above recommendations. Further, the GLALC would welcome and would accept an opportunity to monitor test excavations on the abovementioned site and to undertake / arrange for collection of any cultural items as may be unearthed.

Bullet-point 4[4]

Any bushland regeneration or weed reduction program as may be proposed in the current Vegetation Management Plan [VMP] would need to take into account registered Aboriginal sites and areas of archaeological potential, as outlined in Figure 2.

Bullet-point 5[5]

All proposed archaeological works, including artefact collection, should be conducted in partnership with the registered Aboriginal community stakeholder groups.

Briefly, the Gandangara Local Aboriginal Land Council (**GLALC**) supports the recommendations.

We look forward to working with you on this project. Please do not hesitate to contact us with all enquiries.

Yours in the struggle,

Jack (Mark) Johnson
CEO & Solicitor
Gandangara LALC

[2] *As above n1.*
[3] *As above n1.*
[4] *As above n1.*
[5] *As above n1.*

1.4 Other Correspondence

TOCOMWALL

Tocomwall
ACN 137 694 618
PO Box 76
CARINGBAH NSW 1495
yarrawalk@tpg.com.au

28th January 2010

Mary Dallas
Consulting
Waterview St
BALMAIN NSW 2041

Paul Irish
Principal Consultant

RE: DAHMP THE HOXTON PARK AIRPORT SITE, HOXTON PARK NSW and HPAL PTY LIMITED PROPOSED RESIDENTIAL SUBDIVISION WITH IN FORMER HOXTON PARK AIRPORT.

Yarrawalk is a division of Tocomwall PTY LTD. As per your correspondence dated 14th January 2009, I have read the AHMP and agree with the recommendation with regard to further investigation please be advised that Tocomwall is seeking to be involved in all consultation, meetings and field work.

Tocomwall represents traditional owners from the area in question and retains local and oral history on behalf of its membership. We would also like to state that we do not accept or support any person or organisation that comments regarding the said area.

We would also like to state that the area in question is of importance to our people and we look forwarded to working with your firm to ensure that the field work carried out in the area is managed in a manner best for the developer and the broader community.

Please also be advised that this Aboriginal organisation does not do volunteer work or attend unpaid meetings.

All correspondence should be emailed to the following yarrawalk@tpg.com.au or to the above postal address.

Yours faithfully

Scott Franks
Director & Aboriginal Heritage Manager

Tocomwall
Creating Quantum Change