

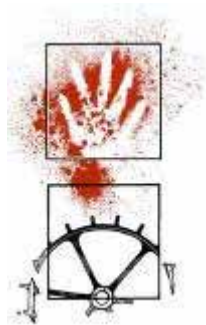


TransGrid Electricity Substation, Williamsdale, ACT

Cultural Heritage Assessment

DRAFT

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Report to Purdon Associates Pty Ltd

EXECUTIVE SUMMARY

- TransGrid are proposing to construct a new electricity substation south of Williamsdale, in the ACT. The proposed works area and heavy duty access road for equipment installation comprise approximately 2 ha of land.
- This report provides the results of a cultural heritage assessment of the Williamsdale electricity substation development area. The heritage assessment includes literature and database review, consultation with Registered Aboriginal Organisations, and field survey of the study area.
- A single Aboriginal heritage site consisting of an isolated stone artefact (Site 14) has been recorded as occurring on the alignment of the proposed access road within the Williamsdale study area. Subsequent to its recording, the site area has been subject to severe ground surface disturbance from nearby earthworks. The artefact was not visible in its recorded location at the time of the 2006 Williamsdale substation field survey.
- Two previously recorded Aboriginal sites are situated on lands adjacent to the Williamsdale substation study area.
- No previously recorded historic sites occur within, or in the near vicinity of, the study area.
- No heritage sites or areas of archaeological sensitivity or potential were identified during the course of this heritage assessment.
- It is concluded that there are no cultural heritage constraints to the proposed Williamsdale substation development.

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1. INTRODUCTION

TransGrid are proposing to construct a new electricity substation south of Williamsdale, in the ACT. (Figure 1.1). The proposed works area and heavy duty access road for equipment installation comprise approximately 2 ha of land. (Figure 1.2).

A desktop assessment of the cultural values of the electricity substation site was undertaken by Navin Officer Heritage Consultants In late 2006.

Following the recommendations of that report, a cultural heritage assessment was commissioned by Purdon Associates Pty Ltd with the aim of providing a review of the cultural heritage values that exist within, or in close proximity to, the proposed new substation at Williamsdale. The assessment includes consultation with the local Aboriginal community and field survey of the proposed development area.

This cultural heritage assessment report will form part of the Preliminary Assessment (PA) for the electricity substation.

1.1 Report Outline

This report:

- Documents consultation with local Aboriginal groups carried out in the course of the investigation;
- Describes the environmental setting of the study area;
- Provides a background of local and regional archaeology for the study area;
- Provides an historical background to the study area;
- Describes the field survey strategy and results;
- Outlines the statutory obligations relevant to cultural heritage in the study area; and
- Provides recommendations based on the results of the investigation and the potential impact of the proposed development on the archaeological resource.

2. ABORIGINAL PARTICIPATION

The Williamsdale study area is situated within the tribal area of the Ngunnawal people (Tindale 1974). The study area falls within the stated area of custodial interest of four Aboriginal organisations. These groups are the:

- Buru Ngunawal Aboriginal Corporation;
- Little Gudgenby River Tribal Council;
- Consultative Body Aboriginal Corporation on Indigenous Land and Artefacts in the Ngunnawal Area; and the
- Ngarigu Currawong Clan.

Initial contact was made with all groups in writing to inform them of the project and to organise representation during the field survey. Subsequent contact was made by telephone to confirm arrangements for the survey.



Field survey was conducted on the 20th December 2006. Representatives Carl Brown (Consultative Body Aboriginal Corporation on Indigenous Land and Artefacts in the Ngunnawal Area) and Tony Boye (Ngarigu Currawong Clan) participated in the field inspection. Representatives from the Buru Ngunawal Aboriginal Corporation and the Little Gudenby River Tribal Council were unavailable on the day of the field survey.

Records of Aboriginal Participation are provided in Appendix 1.

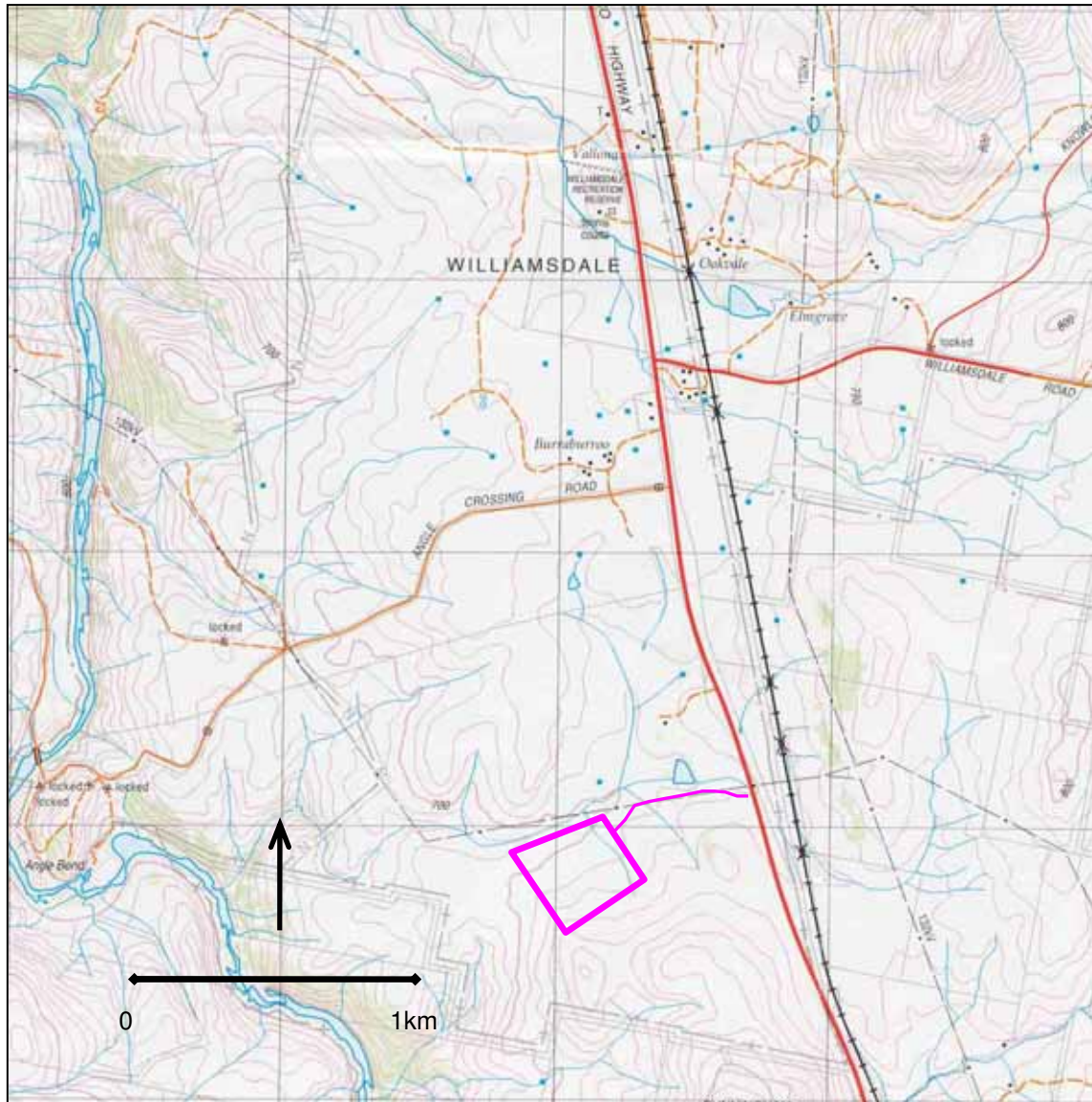


Figure 1.1 Williamsdale substation study area (pink)
(Extract from Williamsdale 2nd edition 1:25,000 topographic map (NSW Land and Property Information 2002))

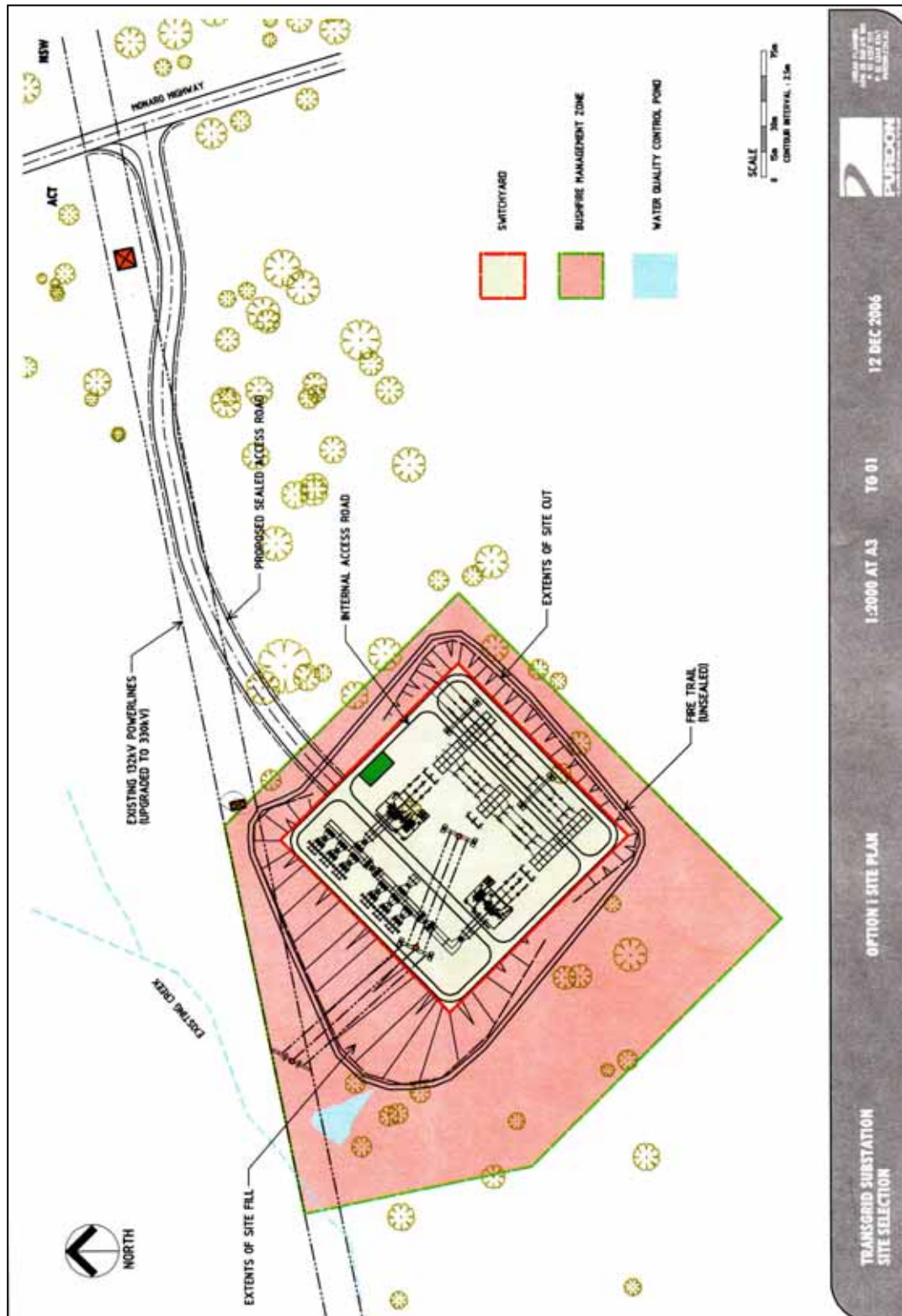


Figure 1.2 Williamsdale sub station
(map supplied by Purdon Associates Pty Ltd)



3. LITERATURE AND DATABASE REVIEW

3.1 Literature and Database Review

A range of documentation was used in assessing archaeological and historical knowledge for the Williamsdale study area and the surrounding region.

Aboriginal literature sources included the ACT Heritage Unit's Aboriginal Sites Database, maps, and associated reports.

Historic literature sources included published reports and monographs from local sources.

This background research was used to determine if known Aboriginal sites or listed historic sites were located within the area under investigation, to facilitate site prediction on the basis of known regional and local site patterns, and to place the area within an archaeological and research management context.

3.2 Fieldwork

Field survey was undertaken on the study area on 20 December 2006. Field survey was conducted on foot and involved inspection of all areas of ground surface visibility.

The survey methodology had the following objectives:

- To obtain as comprehensive as possible survey coverage of the landscape within the study area;
- To identify and record any Aboriginal or historical sites occurring within the study area and to assess their extent and condition; and
- To identify and record any evidence of European settlement and early history of the area.

3.3 Project Personnel

Fieldwork was conducted by Lyn O'Brien and Lindsay Smith. This report was prepared by Lyn O'Brien and Nicola Hayes. The report was edited by Kerry Navin.

3.4 Recording Parameters

The archaeological survey aimed at identifying material evidence of Aboriginal occupation as revealed by surface artefacts and areas of archaeological potential unassociated with surface artefacts. Potential recordings fall into three categories:

- Isolated finds,
- Sites; and
- Potential archaeological deposits.



4. ENVIRONMENTAL CONTEXT

The study area is located 1.5 km south of Williamsdale, ACT, and west of the Monaro Highway. The proposed works area and heavy duty access road for equipment installation comprise approximately 2 ha of land (Figure 1.1).

The subject land is situated on moderately graded slopes within the upper catchment and southern margin of an unnamed minor tributary which drains westward to the Murrumbidgee (Figures 4.1 & 2). The Murrumbidgee River is located approximately 800 m to the west of the study area and at this point flows through a narrow gorge around 150 m deep. The study area extends to the east of the eastern margin of the gorge. The gradient of the unnamed tributary adjacent to the study area remains low for a further 600 m to the west, prior to its steep descent to the floor of the gorge.

Cunningham Hill, a prominent conical peak, is situated 1 km south of the study area, also on the edge of the gorge, and reaches a height of 834 m AHD, approximately 170 m above the elevation of the study area.

The underlying geology of the study area consists of the middle Silurian Colinton Volcanics which compose tuff, dacite, shale, sandstone and limestone lenses.

The landsurface of the study area had been subject to considerable disturbance through vegetation clearance, pastoral development, construction and maintenance of a transmission line, and the construction of a large agricultural dam adjacent to the study area.



Figure 4.1 General view along proposed access road, looking west.



Figure 4.2 General view of proposed substation area, looking west.



5. ARCHAEOLOGICAL CONTEXT

5.1 Tribal Boundaries & Ethno-history

Tribal boundaries within Australia are based largely on linguistic evidence and it is probable that boundaries, clan estates and band ranges were fluid and varied over time. Consequently 'tribal boundaries' as delineated today must be regarded as approximations only, and relative to the period of, or immediately before, European contact. Social interaction across these language boundaries appears to have been a common occurrence.

A reconstruction of clan boundaries based on Tindale (1974) indicates that the southern Canberra area was close to the tribal boundaries of the Ngunnawal and Walgalu people. According to Tindale (1940) the territories of the Ngunnawal, Ngarigo and Walgalu peoples coincide and meet in the Queanbeyan area. Horton's (1999) map shows a Ngarigo tribe in the southern Canberra area. Cooke (1988) believes that considerable mingling between the Northern Ngarigo and the Southern Ngunnawal would have occurred. Flood (1984) claims this area of the ACT as Ngarigo territory.

Jackson-Nakano (2001:xiv) notes that Aboriginal family groups within the Canberra-Queanbeyan district and surrounds were known by many names in the early nineteenth century, but local Europeans who knew them best referred to them as Kamberri – also spelled Kgamberry, Kamberra and even Nganbra (Ngambri). She says the heart of their country was centred on the area now referred to as the Acton Peninsular. Some Kamberri individuals, she says, intermarried with neighbouring Ngunnawal families from the 1880s, and some descendants of such marriages re-identify in modern times as Ngunnawal. While maintaining their distinct association with the ACT and surrounds, members of Kamberri-Ngunnawal families might also identify personally as Ngunnawal, Walgalu or even Wiradjuri through their familial links to these other groups. (Jackson-Nakano 2001:xv).

There is some uncertainty as to which language was spoken by the Aborigines of Canberra. The Canberra area appears to have been close to the linguistic boundary between the Gundungurra and Ngunnawal languages. Eades (1976) notes that published grammars for these two languages (Mathews 1900, 1901, 1904) are virtually identical. However, according to Eades' boundaries the Ngunnawal of Canberra probably spoke the Gundungurra language.

References to the traditional Aboriginal inhabitants of the Canberra region are rare and often difficult to interpret (Flood 1980, Huys 1993). The consistent impression however is one of rapid depopulation and a desperate disintegration of a traditional way of life over little more than fifty years from initial white contact (Officer 1989). The disappearance of the Aborigines from the tablelands was probably accelerated by the impact of European diseases which may have included the smallpox epidemic in 1830, influenza, and a severe measles epidemic by the 1860s (Flood 1980, Butlin 1983).

By the 1850s, the traditional Aboriginal economy had largely been replaced by an economy based on European commodities and supply points. Reduced population, isolation from the most productive grasslands, and the destruction of traditional social networks meant that the final decades of the region's indigenous culture and economy was centred on white settlements and properties (Officer 1989).

By 1856, the local 'Canberra Tribe', presumably members of the Ngunnawal or Ngarigo, were reported to number around seventy (Schumack 1967) and by 1872 recorded as only five or six 'survivors' (*Goulburn Herald* 9 Nov 1872). In 1873, one 'pure blood' member remained, known to the white community as Nelly Hamilton or 'Queen Nellie'.

Frequently only 'pure blooded' individuals were considered 'Aboriginal' or 'tribal' by European observers. This distinction made possible the assertion of local tribal 'extinctions'. In reality, 'Koori' and tribal identity remained integral to the descendants of the nineteenth century Koori people, some of whom continue to live in the Canberra-Queanbeyan-Yass region.



Based on the above overview, it is probable that Aboriginal scarred trees in the Canberra region would date to no later than the 1850s and 60s. Tree scars with an Aboriginal origin would therefore have to be at least in the order of 140-160 years old.

Early accounts of Aboriginal lifestyles in and comparable with the current study localities describe aspects of a successful hunting and gathering economy and eventful social life and inter-group contacts. The material culture, which is partly reflected in the surviving archaeological record, included stone and wooden artefacts, skin clothing and bark and bough temporary dwellings (Flood 1980, Huys 1993).

5.2. Regional Archaeology Overview

Stone artefact scatters are the most frequently occurring residue of prehistoric activity in the region. They may range considerably in size and density, factors that are often interpreted as an indication of intensity of the Aboriginal landuse. As well, they provide insight into stylistic and technological behaviours. Such scatters are representative of one or more stages in what is termed a 'reduction sequence'. That is, the entire process from obtaining stone raw material, to manufacture of stone artefacts and to eventual discard or loss and incorporation into the archaeological record. Isolated finds are artefacts that occur without any apparently associated archaeological materials or deposit. Open scatters are defined as spatially concentrated occurrences of two or more flaked stone artefacts.

Broad distinctions may be made between sites formed as a result of general living and habitation activities and sites located in response to the fixed locations of specific resources. Occupation sites relating to the former activities are most commonly recognised by the discard of flaked stone materials in sedimentary deposits. Subsequent processes of erosion or landuse may deflate or section these sediments to reveal surficial or embedded (sometimes stratified) materials. Sites formed as a result of resource location may be recognised by a range of features including the proximity of discarded stone materials to source stone materials and characteristic extraction and use marks upon stone or wood materials, ie. quarries, hatchet grinding grooves and scarred trees.

The wider regional pattern of Aboriginal occupation site occurrence within the ACT is one of higher site size and frequency in areas proximate to major permanent creeklines with a reduction in site size and frequency around less permanent water sources. Whilst sites have been found to occur throughout topographic and vegetational zones, there is a tendency for more of the larger sites to be located in proximity to creeks, wetlands and proximate parts of valley floors. A trend for larger sites to be near major water sources, but avoiding frost drainage hollows, was noted at a regional level by Flood (1980). Elsewhere in the Canberra region high site and artefact frequencies have also been correlated with the geographic occurrence of specific resources particularly, stone procurement outcrop locations (Access Archaeology 1990; Heffernan and Klaver 1995; Kuskie 1992a & b; Walshe 1994).

Scarred trees may be the result of Aboriginal uses of bark and/or wood materials. Various other activities, including the retrieval of honey and other foodstuffs may also result in distinctive 'toe hold' and extractive scars. Scarred trees are sparsely documented in the wider Canberra region where suitable mature woodland has been retained (Officer 1992). The identification of scars as Aboriginal in origin is problematic for a number of reasons. A variety of natural processes such as fire damage, lightning strike and branch tears may mimic the scars formed by Aboriginal bark removal. In addition, bark was also a building material favoured by early European settlers, and there are instances where Aboriginal people were employed to strip bark for European buildings. The distinction between Aboriginal and historic scarred trees is therefore often difficult.

5.3. Previous Archaeological Assessments in the Williamsdale Area

Three archaeological studies have been carried out in the general vicinity of the Williamsdale substation site. These are a study of the Murrumbidgee River corridor and two assessments of the Canberra/Royalla 132kV transmission line.

In 1980 Bartz (1980) undertook a survey of the proposed easement of the Canberra/Royalla transmission line. The survey route was 44 km long and the easement surveyed was 66 m wide. A



total of 22 sites were located including 10 surface artefact scatters, two isolated finds, seven archaeological deposits, two historic sites and a possible quarry. Two of these sites (CR14 and CR15) are located adjacent to the Williamsdale substation study area. Site descriptions are provided below.

CR14

ACT 1:10 000 210480 570150 (MGA 692637.6059984)

This site was recorded as an open scatter of five stone artefacts.

CR15

ACT 1:10 000 210970 570270 (MGA 693130 6060093)

This site was recorded as an open scatter comprising quartz and silcrete flakes and chips.

In 1981 Barz and Winston-Gregson conducted an archaeological survey and assessment of the Murrumbidgee River corridor between the ACT border and Kambah Pool (Barz and Winston-Gregson 1981). The study area included an area approximately one kilometre either side of the riverbed, and would therefore have included a portion of the proposed substation area. The most frequently recorded site type was artefact scatters. Preferred site locations appeared to be level surfaces on low hilltops and terraces above the river valley floor. No recordings were made within the present study area.

Dearling (pers. comm. 2006) has recently re-surveyed the 132kV transmission line easement for a proposed upgrade of the line. During this study a total of 93 Aboriginal artefacts were recorded in 13 open artefact scatters and 14 isolated finds. One of these recordings, Site 14 is located within the proposed vehicle access route for the substation (refer following section).

5.4 The Williamsdale Study Area

One previous Aboriginal site recording (Site 14) occurs within the study area. The recording was made by Charles Dearling and identified as "Site 14". Information regarding this site was kindly provided verbally by Charles Dearling (pers comm. 2006). The recording consists of a single stone artefact and is located on the proposed access track to the substation, below the power lines and adjacent to a large dam between transmission tower Nos 135 and 134.

978/97D Site 14 Isolated Find

GPS Grid Reference: 211370 570290 (ACT 1:10K Map Sheet Grid) (MGA 693531 6060106)

This isolated find was located in a bare patch of ground about 160 m east of structure 978/97D 134. The area is a low gradient slope of the crest of a minor spur. The artefact was located in a heavily disturbed area of the TransGrid power line easement. Disturbance has been caused by clearance of the native vegetation, cultivation and construction of the transmission line.

The site was rated by Dealing as having low to moderate potential to be larger than recorded and to have more artefacts present. The potential for *in situ* artefacts to be present was considered low due to the shallow nature of the soil. Generally the condition of the site was rated as poor.

Artefact Description

1. Brown volcanic river pebble (anvil) with concentrated pitting on both surfaces. The artefact measured 122 x 115 x 40 mm.



Potentially occurring sites

Based on established Aboriginal site location parameters (see section 5.4 below) it is considered that the most likely Aboriginal site types to occur in the Williamsdale study area are artefact scatters occurring in open contexts, and isolated finds.

Areas of potential archaeological sensitivity within the study area are elevated well-drained areas adjacent to the unnamed tributaries of the Murrumbidgee River which traverse the area.

5.5 Aboriginal Site Location Parameters

As a result of the numerous archaeological surveys undertaken to date in the Canberra area qualitative observations regarding Aboriginal site location parameters may be summarised as follows:

- The most commonly recorded site types are low density surface scatters of stone artefacts;
- Artefact densities in open artefact scatters may vary considerably;
- Open artefact scatters are most likely to occur on relatively level ground in locally well-drained contexts, either spurline crests, terraces or elevated creek banks in valley floor contexts, low gradient crests and streamline banks in mid valley slope contexts, and level crests, shoulders and saddles on major ridgelines and spurs;
- The majority of open artefact scatters, (particularly larger sites), are situated adjacent to, or in close proximity to, creek flats or valley bottom contexts, frequently on low gradient basal slopes adjacent to streams or wetlands;
- Open artefact scatters which contain relatively large artefact assemblages and densities occur most frequently and consistently within 100-150 m of major and relatively permanent drainage lines;
- Open artefact scatters which occur away from the valley basal slopes and major tributaries tend to be small and sparser. A preference for major confluences and valley constrictions may be indicated;
- Potential for open artefact scatters generally decreases on the natural grasslands of valley floor that are subject to cold-air drainage;
- Most sites located away from major water sources will consist of low density scatters of artefacts, and mostly contain less than 10 visible surface artefacts;
- Artefacts may occur wherever surface exposures of exploitable rock occur, rock sources which are known to have been exploited in the ACT include chalcedony, chert, quartz, and fine grained igneous rocks such as fine grained porphyry and fine grained intrusives within granodiorite;
- The occurrence of high grade chert does not necessarily indicate Aboriginal exploitation (Officer and Navin 1992); and
- Aboriginal scarred trees may occur anywhere old-growth trees survive. It is estimated that Aboriginal scars in the Canberra region would need to be in the order of 150 to 200 years old.

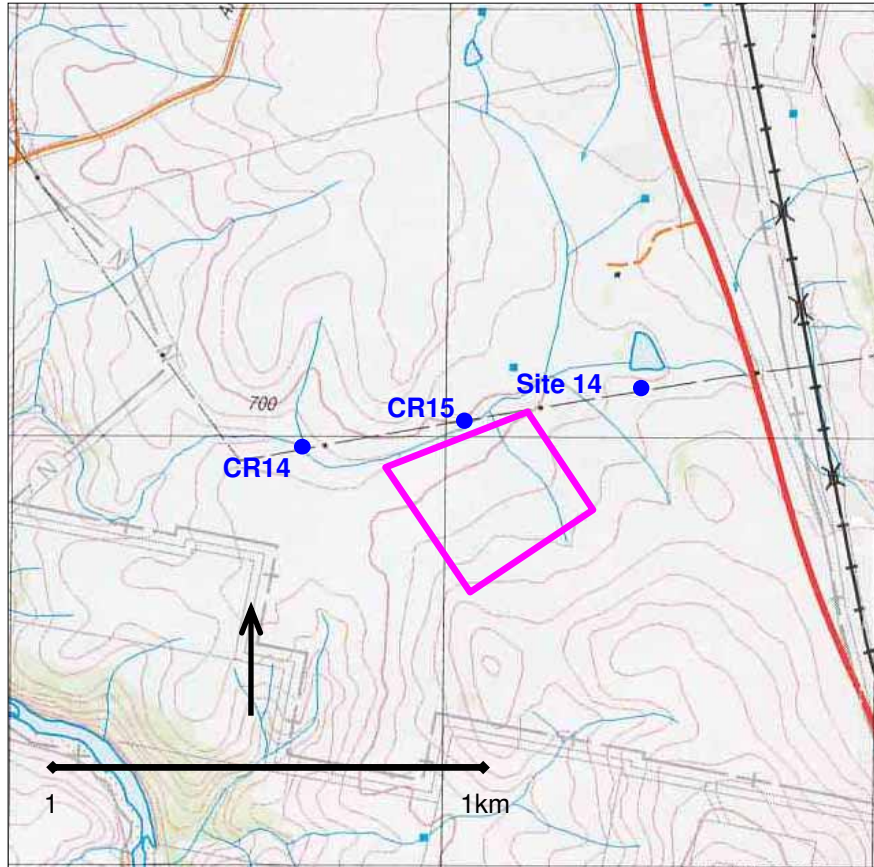


Figure 5.1 Location of previously recorded Aboriginal sites
(extract from Williamsdale 2nd edition topographic map (LPI 2002))



6. HISTORICAL OVERVIEW

6.1 Outline of European Nineteenth-Century Land Settlement

The first documentation of Europeans in the Canberra/Queanbeyan area is in 1820 and 1821 when exploratory expeditions in search of the Murrumbidgee River passed through the area (Gillespie 1985). The Queanbeyan area was first visited by Europeans in 1822 when a small group of men led by William Kearns crossed the Molonglo Plains and eventually reached the Queanbeyan River (Lea-Scarlett 1968: 5-6). By the mid-1820s the first settlers, squatters and graziers had moved into the district, some individuals obtaining crown and compensatory land grants.

Large estates were established in the Canberra area during the 1820 and 1830s from a series of large area land grants and purchases. These included grants of over 17,000 acres to the Campbell family that formed the Duntroon Estate which extended from the Molonglo to the Hume valley. Three portions of 2,210 acres were purchased by Francis Mowatt to form the Yarralumla Estate but were later successfully claimed and purchased by Terrence Murray in partnership with Thomas Walker (Gillespie 1991:19). The 'Jerrabomberra' property was established by John Palmer who arrived with the First Fleet (Lea-Scarlett 1968:10). Land use over this period was focused upon grazing, although dairying is known to have been undertaken at Jerrabomberra by the early 1830s (Lea-Scarlett 1968:11).

Following the establishment of the large estates which covered the best grasslands on the river flats and basal valley slopes, the subsequent pattern of land selection was characterised by the purchase or selection of small parcels of forested land, particularly following the Robertson Land Act of 1861. The land selectors who applied for land under the Robertson Land Acts were often people of limited financial resources and with no government contacts. Applicants were often locals whose occupations and families were connected to the labour force of the larger estates. Their landholdings were often small and conditionally purchased, with freehold title only gained after completion of all payments. During the payment period, various conditions were often specified, including the conduct of improvements such as fencing and clearing, and a period of residency on the block.

Compared to the original land grants and purchases, the land subject to selection was mostly marginal and forested, and often poorly watered in upper creek catchments. In many cases the smallholdings proved uneconomic and selectors could not support their payments and consequently lost or sold their holdings. The buyers were frequently the neighbouring large estate holders who retained the best land, the best water sources and could raise sufficient capital.

6.2 Local History

The first Europeans to visit the Limestone Plains arrived in December 1820, only 32 years after the foundation of the Colony of NSW. By 1822, white men had gained a reasonably good knowledge of the Canberra area including the Molonglo River (Lea-Scarlett 1968:1-7). Major Ovens and Captain Currie traversed the Limestone Plains and Isabella Plain between May 31 and June 15 in 1823 (Field 1825). On June 6 1823 the party passed through the area now known as Williamsdale and sighted to the west the giant Orroral Rock sticking up above the skyline which Currie noted in his journal (Moore 1999).

Charles Bates was one of the first free selectors at Williamsdale. His wife Esther Penniston was the first postmistress there for many years (Moore 1999).

The Railway Commission built a wool loading dump at the Williamsdale siding. The wool clips of Cuppacumbalong and the other properties from Naas to Bobyan were then transported by horse team across the Murrumbidgee River at Angle Crossing for dispatch by rail (Moore 1999:116).

The 1912 Keewong Parish map clearly shows the railway line, the Monaro Highway and Blue Angle Crossing Road (Figure 6.1). The lots on which the study area is located appear to be once owned by A. J. and J. Cunningham who also owned most of the surrounding lots.



Bruce Moore's freehold property *Burraburro* at Williamsdale was the last property to be compulsory acquired for the Federal Capital Territory. It was acquired in 1972 (Moore 1999). Bruce Moore is the author of *Cotter Country*.

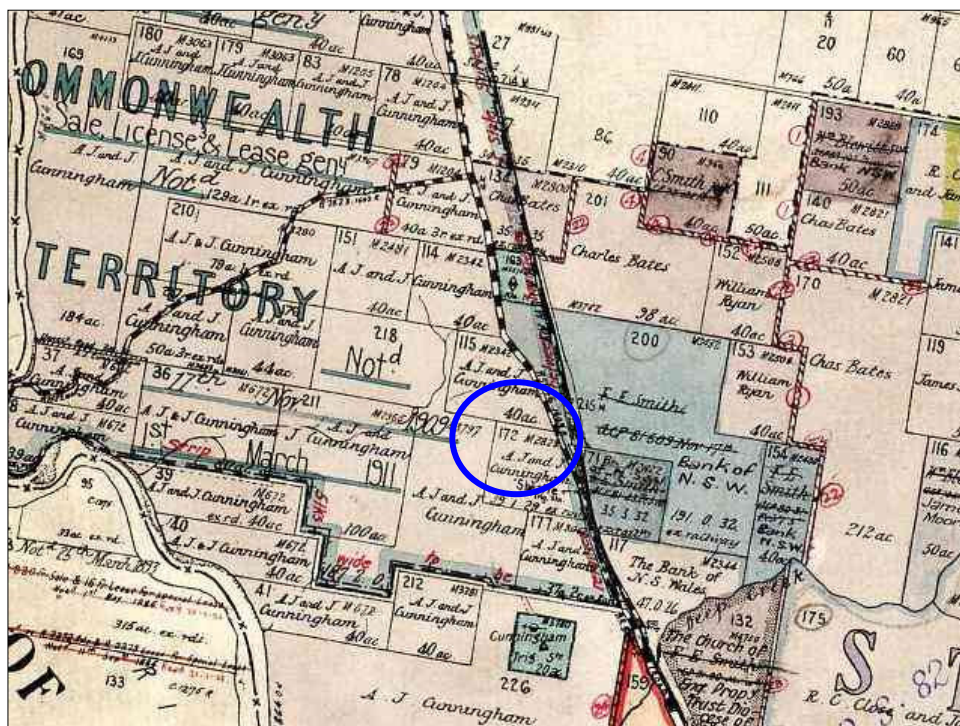


Figure 6.1 Extract from Keewong Parish Map 2nd March 1912 (image ID 10967601). Location of Williamsdale study area in blue.

6.3 Previously Recorded Historic Sites

No previously recorded historic sites are present within the Williamsdale study area.

6.4 Historical Site Location Parameters

The types of places or items that may form part of the historical archaeology context in the ACT include:

- Below ground evidence, including building foundations, occupation deposits, features and artefacts; and above ground evidence, including buildings, works, industrial structures and relics that are intact or ruined; and
- Areas of land that display evidence of human activity or occupation.

Structures of historic interest and heritage significance may be standing, ruined, buried, abandoned or still in use.

Unrecorded historic sites and features that may occur within the Williamsdale area include:

- Nineteenth-century structures such as farm dwellings, outbuildings, selector's and timber-getters huts. These may survive as archaeological deposits and are most likely to survive on less developed rural properties;
- Access routes such as bridle paths and stock routes; and
- Old fence lines (such as post and rail fencing) may occur along road easement boundaries and farm boundaries.



7. RESULTS

7.1 Aboriginal sites

One Aboriginal site, Site 14, has been previously recorded on the proposed access road to the Williamsdale substation. This site has been described in section 5.3. The recorded location of the site is shown on Figures 5.1 and 7.3.

A thorough search of the location where the artefact was previously recorded did not result in the re-location of the artefact. The area of the transmission line easement where the artefact was recorded has been impacted by recent earthworks associated with drainage works. These works have resulted in devegetation and the displacement of large amounts of soil. It is concluded that the artefact is no longer in its recorded position and may be destroyed. (The current condition of the transmission line easement is shown below in Figures 7.1 and 7.2).

No Aboriginal or European heritage sites were located within the substation site during the course of the 2006 field survey.

No areas of archaeological sensitivity or archaeological potential were identified in the substation study area.



Figure 7.1 View of the transmission easement looking east from tower 134, showing constructed bank across natural creek line and associated disturbance



Figure 7.2 View of the transmission easement looking west towards tower 134 showing constructed bank in foreground. The natural creekline now terminates at the dead tree at right of photo.

7.2 Historical sites

No European historical sites have been previously recorded in the Williamsdale substation study area.

No European historical sites were located within the substation site during the course of the 2006 field survey.

No areas of European heritage archaeological sensitivity or archaeological potential were identified in the substation study area.

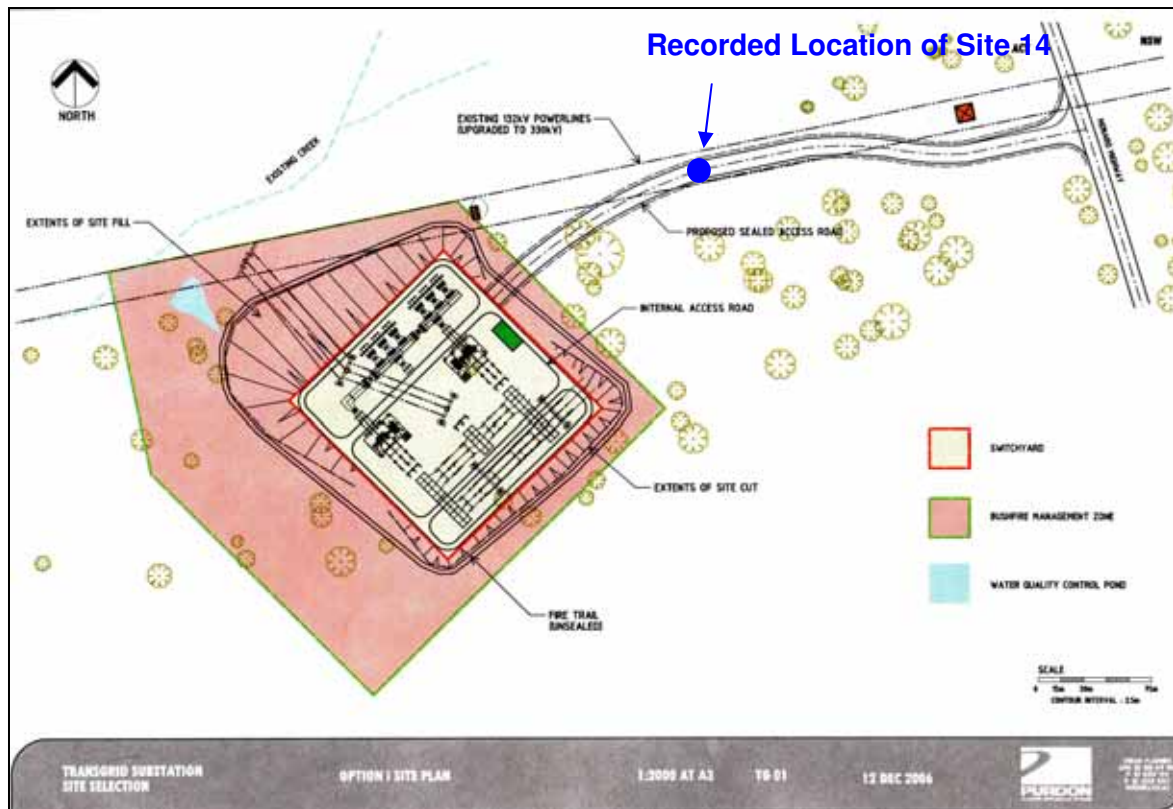


Figure 7.3 Proposed development showing location of Site 14

7.3 Survey Coverage and Visibility Variables

The effectiveness of archaeological field survey is to a large degree related to the obtrusiveness of the sites being looked for and the incidence and quality of ground surface visibility. Visibility variables were estimated for all areas of comprehensive survey within the study area. These estimates provide a measure with which to gauge the effectiveness of the survey and level of sampling conducted. They can also be used to gauge the number and type of sites that may not have been detected by the survey.

Ground surface visibility is a measure of the bare ground visible to the archaeologist during the survey. There are two main variables used to assess ground surface visibility, the frequency of exposure encountered by the surveyor and the quality of visibility within those exposures. The predominant factors affecting the quality of ground surface visibility within an exposure are the extent of vegetation and ground litter, the depth and origin of exposure, the extent of recent sedimentary deposition, and the level of visual interference from surface gravels. Two variables of ground surface visibility were estimated during the survey. They were a percentage estimate of the:

- Total area of ground inspected which contained useable exposures of bare ground; and
- Average levels of ground surface visibility within those exposures. This is a net estimate and accounts for all impacting visual and physical variables including the archaeological potential of the sediment or rock exposed.

The obtrusiveness of different site types is also an important factor in assessing the impact of visibility levels. For example, artefacts made from locally occurring rock such as quartz may be more difficult to detect under usual field survey conditions than rock types that are foreign to the area. The impact of natural gravels on artefact detection was taken into account in the visibility variables estimates outlined above.



The natural incidence of sandstone platforms suitable for grinding grooves or engraving, together with the incidence of old growth trees, are important considerations in identifying both survey effectiveness and site location patterns outside of environmentally determined factors.

Table 7.1 summarises estimates for the degree to which separate landforms within the study area were examined and also indicates the exposure incidence and average ground visibility present in each case. A total of 64% of the ground area in the study area was inspected during the survey, with 27% providing useable archaeological exposures.

Taking into account survey coverage, archaeologically useable exposures, and visibility variables, the effective survey coverage (ESC) was 27% of the total survey area. The ESC attempts to provide an estimate of the proportion of the total study area that provided a net 100% level of ground surface visibility to archaeological surveyors.

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Table 7.1 Survey Coverage Data

Survey unit	Landform	Survey mode	Main exposure types	Estimated Survey Unit area (ha)	Proportion of unit surveyed %	Area of unit surveyed (ha)	Exposure incidence %	Average exposure visibility %	Net effective exposure (ha)	Effective survey coverage of survey unit %
1	creekline	foot	erosion areas, animal impact areas, vehicle tracks	0.5	70	0.35	80	90	0.2520	50.4
2	midslopes	foot	vehicle tracks, erosion areas and animal tracks, denuded areas	1	55	0.55	40	60	0.1320	13.2
3	transmission easement - midslopes	foot	vehicle tracks, impacted areas, denuded areas	0.5	75	0.375	60	70	0.1575	31.5
				2		1.275			0.5415	27.1



8. SIGNIFICANCE ASSESSMENT

8.1 Assessment Criteria

Criteria suitable for the assessment of the heritage values and significance of the archaeological resource within the ACT have been defined in Section 10 of the Heritage Act, 2004. These are reproduced in Appendix 2.

Nine of the 12 specified criteria are potentially applicable to cultural remains and places. These can be summarised as follows:

- a. a high degree of **technical** and/or **creative** achievement;
- b. outstanding **design** and/or **aesthetic** qualities;
- c. evidence of a **distinctive** way of life, tradition, land use, custom, process or function, no longer practised, rare or of exceptional interest;
- d. highly valued by a community or cultural group for its **cultural associations**
- e. significant to the ACT due to importance as part of **Aboriginal tradition**;
- f. a **rare** or **unique** example of its kind or in its intactness;
- g. a **notable** and **characteristic** example of its type;
- h. strong or special **historic associations** with significant events/people;
- j. potential to provide significant information through use as a **research** or **teaching** site

Considerable overlap exists across each of these criteria and many sites will be significant according to several criteria.

8.2 The Study Area

8.2.1 Aboriginal Heritage

A single Aboriginal heritage site (Site 14) was located previously within the study area. As a result of the field survey it now appears likely that this site has been destroyed in the intervening period. Site 14 would have met the significance criteria of the ACT Heritage Act 2004 under the following sections:

- c. evidence of a **distinctive** way of life, tradition, land use, custom, process or function, no longer practised, rare or of exceptional interest;
- d. highly valued by a community or cultural group for its **cultural associations**;
- e. significant to the ACT due to importance as part of **Aboriginal tradition**.

However following discussions with the Aboriginal representatives the site was considered to now hold no cultural values or significance.



9. STATUTORY INFORMATION¹

9.1 Heritage Act 2004

The *Heritage Act 2004* provides for the protection, management and conservation of heritage places and objects in the ACT. The Act establishes a Heritage Register of heritage places and objects and establishes procedures for both provisional and full listing to the Register. The Act establishes the ACT Heritage Council to function as the main advisory body to the Minister on heritage issues. The Council receives administrative support from the ACT Heritage Unit, Environment ACT, Chief Ministers Department. The Council has the power to provisionally and fully register Heritage places and objects. Under the Act, the ACT Heritage Council is to be responsible for the Heritage Register and the heritage registration process.

An 'Aboriginal Place' and 'Aboriginal Object' are defined as 'a place/object of particular significance to Aboriginal people because of either or both:

- (a) Aboriginal Tradition;
- (b) The history, including contemporary history, of Aboriginal people' (Section 9).

Under sections 74 and 75 of the Act a person commits an offence if they engage in conduct that diminishes the heritage significance of a place or object, or engage in conduct that causes damage to an Aboriginal place or object. These offences are graduated according to whether an offender was reckless or negligent 'about whether the conduct would diminish the heritage significance' or 'cause damage' to an Aboriginal Object of Place. To 'cause damage' is inclusive of disturbing or destroying.

A person also commits an offence under the Act if they do not report an Aboriginal place to the Heritage Council, and has 5 working days to do so (Section 51).

The reporting and offence provisions of the Act apply irrespective of land status or whether registration to the Heritage Register occurs.

The Act provides for the development and application of Heritage Guidelines. These are to be formulated by the Heritage Council and will set the policy for how places and objects are to be conserved, including registered places and objects. The guidelines may control how development is to take place in an area which is a heritage place or contains a heritage object. They will be performance-based but may include mandatory provisions (Part 5). During the transitional phase of the Act a heritage or conservation requirement for a place is taken to be a heritage guideline under the Heritage Act (section 129).

The only provisions for legally sanctioned disturbance to an Aboriginal place or object, or the diminution of the heritage value of a Heritage Place or Object is to conform to one of the exceptions listed in section 76 of the Act. According to this section, the offence provisions of the Act (sections 74 and 75) do not apply if conduct is engaged in accordance with a heritage guideline, heritage direction, heritage agreement, a conservation management plan, or an approval for a development under the Land Act part 6 (section 76(2)).

Disturbance to an Aboriginal site or place can only take place if the following conditions have been met:

- The place (or site) has been registered; and the proposed disturbance is compatible with the heritage guidelines for the conservation of that place or object (Part 5); or
- The proposed development follows a DA approval under part 6 of the Land Act (Part 10); or

¹ The following information is provided as a guide only and is accurate to the best knowledge of Navin Officer Heritage Consultants. Readers are advised that this information is subject to confirmation from qualified legal opinion.



- The minister has issued a heritage direction for that place or object (Part 11); or
- The minister has entered into an heritage agreement with a person to conserve the heritage significance of a registered place or object (Part 15); or
- The proposed development follows a conservation management plan that has been approved by the Heritage Council (section 110).

Heritage recordings which occur on National Land under the National Land Ordinance 1989 (or subsequent amendments), or which occur in Designated Areas under the National Capital Plan are subject to development approval processes which may be in addition to, or instead of requirements identified as management requirements under s.54(1) of the Land (Planning and Environment) Act 1991.

Development approval processes within the ACT can be summarised as follows:

- Work carried out on National Land in Designated Areas is subject to the approval of the National Capital Authority;
- Work carried out on Territory Land in Designated Areas is generally subject to approval by the National Capital Authority but Territory requirements may also apply to development where the Territory is the approving Authority;
- Work carried out on National Land outside of Designated Areas must be in accordance with a Development Control Plan agreed by the National Capital Authority that reflects the requirements of the Territory Plan; and
- Work carried out on Territory Land outside Designated Areas is subject to the Territory Plan and Territory Approval processes.

Where a Heritage Place occurs in a Designated Area or National Land, it is conceivable that proposed development actions may not ordinarily be referred to the ACT Government for approval or be subject to any of the exceptions listed in section 76 of the Act. In these cases, there is potential for any action effecting a heritage place or object to constitute an offence under the Act. In these cases, an appropriate procedure would be the preparation of a conservation management plan for the Heritage Place (as defined in section 15) and its submission for approval by the Heritage Council. If approved, any actions effecting that heritage place which are consistent with the plan, will not constitute an offence under the Act (section 76(2)a(iv)).



10. CONCLUSIONS AND RECOMMENDATIONS

A single Aboriginal heritage site consisting of an isolated stone artefact (Site 14) has been recorded as occurring on the alignment of the proposed access road within the Williamsdale study area. Subsequent to its recording, the site area has been subject to severe ground surface disturbance from nearby earthworks. The artefact was not visible in its recorded location at the time of the 2006 Williamsdale substation field survey.

Two previously recorded Aboriginal sites are situated on lands adjacent to the Williamsdale substation study area.

No previously recorded historic sites occur within, or in the near vicinity of, the study area.

No heritage sites or areas of archaeological sensitivity or potential were identified during the course of this heritage assessment.

It is concluded that there are no cultural heritage constraints to the proposed Williamsdale substation development.

It is recommended that:

1. Site 14 is no longer extant and poses no heritage constraints to the proposed Williamsdale substation development.
2. If impact to the Aboriginal sites recorded on nearby lands (**CR14, CR15**) is anticipated, then the visible artefacts at those sites should be salvaged or moved in accordance with a heritage management plan endorsed by the Heritage Council, in consultation with representative Aboriginal organisations.
3. A copy of this report should be forwarded to the ACT Heritage Unit at the following address:

Environment ACT
Heritage Unit
GPO BOX 158
Canberra ACT 2601

4. A copy of this report should be forwarded to the following Aboriginal organisations:

Buru Ngunawal Aboriginal Corporation
4 Gasking Close
Dunlop ACT 2615

Little Gudgenby River Tribal Council
16 McNamara St
Pearce ACT 2607

Ngarigu Currawong Clan
6 Buckman Place
Melba ACT 2615

Consultative Body on Indigenous Land and Artefacts in the Ngunawal Area
85 Barracks Flat Drive
Queanbeyan NSW 2620



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APPENDIX 1

ABORIGINAL PARTICIPATION FORM



Record of Aboriginal Representative Participation*

Name(s) of Aboriginal Representative(s): Tony Boye

Name of Aboriginal Organisation: Ngarigu Currawong Clan

Archaeologist(s): name & address Lyn O'Brien

Navin Officer Heritage Consultants Pty Ltd
4/71 Leichhardt Street, Kingston, ACT 2604

Project Name: Williamsdale Electricity Substation

Client: name & address: Trevor Fitzpatrick

(please send your invoice to this address) Purdon Associates Pty Ltd
3/9 Mackay St TURNER ACT 2612

- Type of participation:
- Guided inspection of study area and sites
 - Accompanied/participated in archaeological survey/salvage
 - Accompanied/participated in excavation program
 - Other (please specify).....

Period of participation:

Participant	Date(s)	Start	Finish
<u>Tony Boye</u>	<u>20 December 2006</u>	<u>9.30 am</u>	<u>11.30.</u>

Comments:.....

A written request to provide comment on Aboriginal cultural values within the study area:

- has been provided to the participant(s)
- will be posted to the Aboriginal organization(s) represented.

Signed (archaeologist): Lyn O'Brien

Signed (Aboriginal representative(s)): Tony Boye

* Please note, this form is a record of participation only and not intended to be a formal report on Aboriginal views. It is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.



Record of Aboriginal Representative Participation*

Name(s) of Aboriginal Representative(s): Carl Brown

Name of Aboriginal Organisation: Consultative Body Aboriginal Corporation on Indigenous Land and Artefacts in the Ngunnawal Area

Archaeologist(s): name & address Lyn O'Brien
Navin Officer Heritage Consultants Pty Ltd
4/71 Leichhardt Street, Kingston, ACT 2604

Project Name: Williamsdale Electricity Substation

Client: name & address: Trevor Fitzpatrick
(please send your invoice to this address) Purdon Associates Pty Ltd
3/9 Mackay St TURNER ACT 2612

- Type of participation:
- Guided inspection of study area and sites
 - Accompanied/participated in archaeological survey/salvage
 - Accompanied/participated in excavation program
 - Other (please specify).....

Period of participation:

Participant	Date(s)	Start	Finish
<u>Carl Brown</u>	<u>20 December 2006</u>	<u>9.30 am</u>	<u>11.30</u>

Comments:.....
.....
.....
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A written request to provide comment on Aboriginal cultural values within the study area:
 has been provided to the participant(s)
 will be posted to the Aboriginal organization(s) represented.

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Signed (Aboriginal representative(s)): Carl Brown

* Please note, this form is a record of participation only and not intended to be a formal report on Aboriginal views. It is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.



APPENDIX 2

HERITAGE SIGNIFICANCE ASSESSMENT CRITERIA



Heritage Act (2004) Section 10

Heritage significance criteria for the assessment of the heritage significance of places or objects in the ACT

1. Under Section 10 of the *Heritage Act (2004)*, a *place or object* has heritage significance if it satisfies one or more of the following criteria:
 - (a) it demonstrates a high degree of technical or creative achievement (or both), by showing qualities of innovation, discovery, invention or an exceptionally fine level of application of existing techniques or approaches;
 - (b) it exhibits outstanding design or aesthetic qualities valued by the community or a cultural group;
 - (c) it is important as evidence of a distinctive way of life, taste, tradition, religion, land use, custom, process, design or function that is no longer practised, is in danger of being lost or is of exceptional interest;
 - (d) it is highly valued by the community or a cultural group for reasons of strong or special religious, spiritual, cultural, educational or social associations;
 - (e) it is significant to the ACT because of its importance as part of local Aboriginal tradition;
 - (f) it is a rare or unique example of its kind, or is rare or unique in its comparative intactness;
 - (g) it is a notable example of a kind of place or object and demonstrates the main characteristics of that kind;
 - (h) it has strong or special associations with a person, group, event, development or cultural phase in local or national history;
 - (i) it is significant for understanding the evolution of natural landscapes, including significant geological features, landforms, biota or natural processes;
 - (j) it has provided, or is likely to provide, information that will contribute significantly to a wider understanding of the natural or cultural history of the ACT because of its use or potential use as a research site or object, teaching site or object, type locality or benchmark site;
 - (k) for a place – it exhibits unusual richness, diversity or significant transitions of flora, fauna or natural landscapes and their elements;
 - (l) for a place – it is a significant ecological community, habitat or locality for any of the following:
 - i) the life cycle of native species;
 - ii) rare, threatened or uncommon species;
 - iii) species at the limits of their natural range;
 - iv) distinct occurrences of species.

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