

Appendix H

Aboriginal heritage



**ALFORDS POINT ROAD UPGRADE
ALFORDS POINT BRIDGE SOUTHERN ABUTMENT TO BRUSHWOOD DRIVE
REVIEW OF ENVIRONMENTAL FACTORS**

**Aboriginal Archaeological Survey Report
Stage 2 PACHCI**

Prepared for GHD
on behalf of Roads and Maritime Services

Sutherland Local Government Area

Draft
August 2012

Ref. 1115

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Document Information

Project Name	Alfords Point Road Upgrade – Alfords Point Bridge Southern Abutment to Brushwood Drive REF Aboriginal archaeological survey report
Project Number	1115
Status	Draft
Version	1
Client Name	GHD
Recipient	Mike Trebitsch, Environmental Consultant
Issue Date	15 August 2012
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Executive Summary

Roads and Maritime Services (RMS) propose to upgrade a section of Alfords Point Road between the southern abutment of Alfords Point Bridge in the north and Brushwood Drive in the south. The program also involves relocation of a heavy vehicle inspection bay approximately 700 metres south of Brushwood Drive, near Old Illawarra Road/Menai Road Overpass.

RMS engaged GHD Pty Ltd to prepare a Review of Environmental Factors (REF) for the proposed upgrade. An assessment of the potential impact on Aboriginal heritage formed part of the REF assessment. Kelleher Nightingale Consulting Pty Ltd (KNC) was engaged to prepare an Aboriginal archaeological survey report in accordance with Stage 2 of the RMS *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI).

No Aboriginal archaeological sites or items were identified in the road upgrade corridor or proposed relocated heavy vehicle inspection bay.

There are no constraints to the upgrade of this section of Alfords Point Road provided all works, including ancillary areas, are confined to the corridor and proposed heavy vehicle inspection bay assessed in this report. A number of known Aboriginal heritage sites are located in areas adjacent to the assessed corridor and all works for the road upgrade should ensure against any harm (direct or indirect) to nearby Aboriginal objects.

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1 Introduction

Roads and Maritime Services (RMS) propose to upgrade a section of Alfords Point Road between the southern abutment of Alfords Point Bridge in the north and Brushwood Drive in the south. The program also involves relocation of a heavy vehicle inspection bay approximately 700 metres south of Brushwood Drive, near Old Illawarra Road/Menai Road Overpass. The proposed upgrade boundary, including relocated heavy vehicle inspection bay, is shown in Figure 1 and hereafter referred to as the study area.

RMS engaged GHD Pty Ltd to prepare a Review of Environmental Factors (REF) for the proposed upgrade to fulfil the requirements of Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and take into account all matters affecting or likely to affect the environment as a result of the proposal. An assessment of the potential impact on Aboriginal heritage formed part of the REF assessment. Kelleher Nightingale Consulting Pty Ltd (KNC) was engaged to prepare an Aboriginal archaeological survey report in accordance with Stage 2 of the RMS *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI).

This study was written in accordance with the Office of Environment and Heritage (OEH) *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010). The Aboriginal archaeological survey report complies with the RMS PACHCI (RMS 2011).

1.1 Summary of findings

No Aboriginal archaeological sites were identified in the in the road upgrade corridor or proposed relocated heavy vehicle inspection bay.

There are no constraints to the upgrade of this section of Alfords Point Road provided all works, including ancillary areas, are confined to the corridor and proposed heavy vehicle inspection bay assessed in this report.

A number of known Aboriginal heritage sites are located in areas adjacent to the assessed corridor and all works for the road upgrade should ensure against any harm (direct or indirect) to nearby Aboriginal objects.

1.2 Investigator / contributors

A full list of investigator / contributors to the current study is included in Table 1 below.

Table 1. Investigator / contributor

Investigator / Contributor	Affiliation	Role
Dr Matthew Kelleher	KNC	Reporting, Advisor and Review
Alison Nightingale	KNC	Reporting, Advisor and Review
Josh Symons	KNC	Reporting, Survey, GIS
Jaclyn Ward	KNC	Survey
Kylie McDonald	KNC	Reporting
Ben Anderson	KNC	GIS mapping

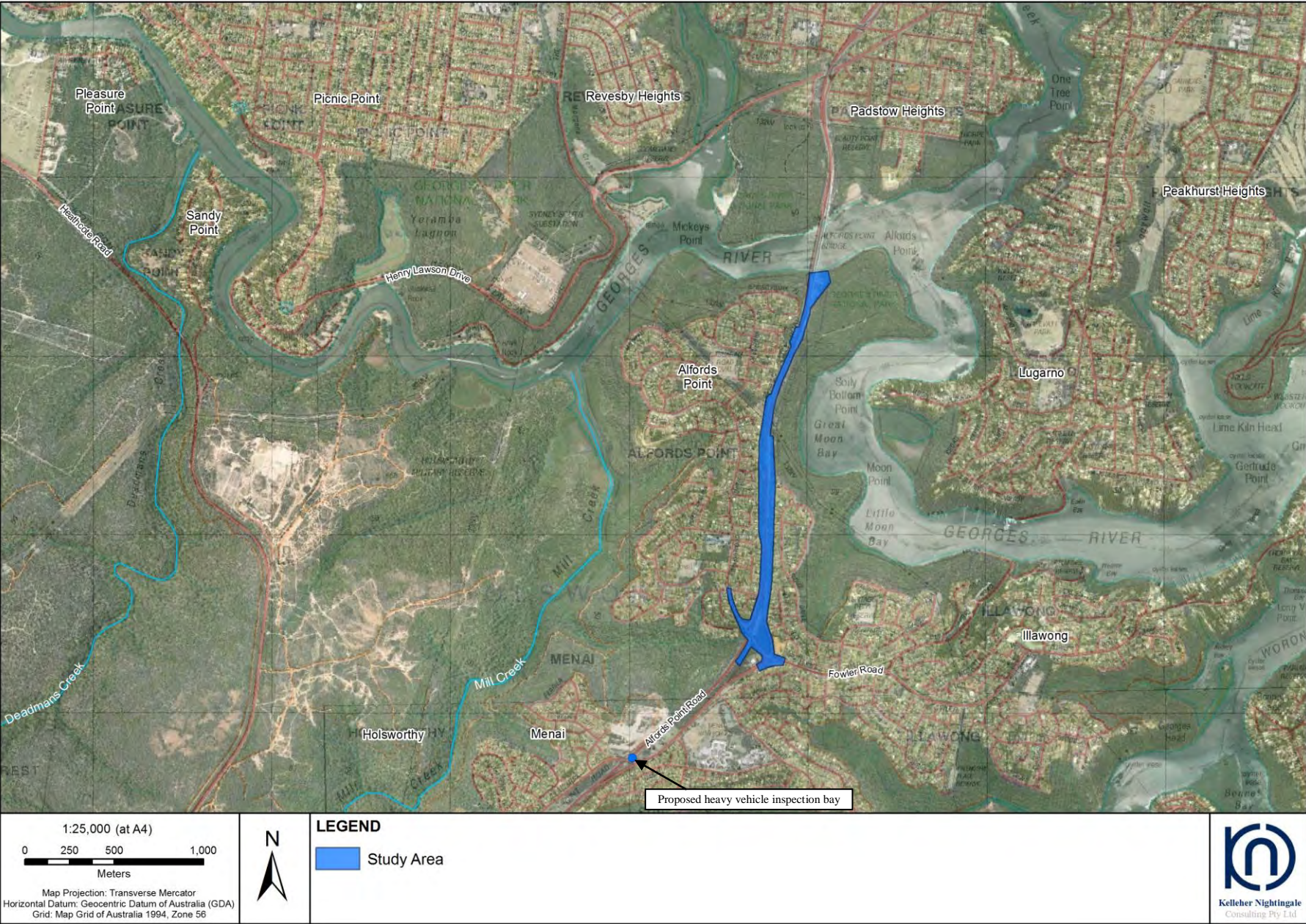


Figure 1. Study area location

2 Description of Development Proposal

The existing Alfords Point Road is dual carriageway with two 3.3 m lanes in both directions. An informal truck inspection bay is located 900 metres from the southern abutment on the southbound carriageway. At the Brushwood Drive overbridge there is a southbound exit ramp and a northbound entry ramp.

Alfords Point Road provides north-south movements and local access to residential areas of Padstow Heights, Alfords Point and Illawong. Alfords Point Road is also a primary arterial road for commuters and freight access and is also used as a Strategic Bus Corridor between Miranda and Bankstown.

The proposed upgrade would widen Alfords Point Road from the southern bridge abutment to Brushwood Drive for approximately 2.1 km in length, upgrading the existing undivided four lane road to six lane divided carriageway. The informal truck bay will be moved to a permanent location on the eastern side of Alfords Point Road about 700m south of Brushwood Drive. The heavy vehicle inspection bay would be a minimum of 60 metres long and 8.5 metres wide. The upgrade proposal will also provide a 3 m shared path adjacent to the southbound carriageway.

The proposed upgrade aims to improve traffic capacity and address congestion issues as well as complement the recently completed duplication of the Alfords Point Bridge and the upgrade of the northern bridge approaches currently under construction.

The new carriageway will be constructed on the eastern side of Alfords Point Road. Activities would include:

- Clearing (trees) - some tree removal and vegetation trimming would be required along the eastern side of Alfords Point Road to facilitate widening and batter reshaping
- Utility adjustments
- Concrete pavement demolition (hydraulic hammers)
- Bulk earthworks including excavation in rock (hydraulic hammers)
- Sub grade ripping (in rock) and compaction
- Material processing (crushers) and screening operations
- Drainage
- Pavement and concrete barrier construction
- Noise wall relocation
- Retaining wall extension
- Bus stop relocation and footpath connection
- Street lighting
- Signposting and line marking
- Urban design and landscaping

Associated construction activities also required consideration for potential to impact on Aboriginal heritage, including:

- site compound - a temporary construction site compound and stockpile site covering an area of approximately 2500 square metres is proposed to be located within the limits of the study area. The proposed location is within a largely cleared area on the eastern side of Alfords Point Road adjacent to the Illawong/Alfords Point off ramp.
- Stockpile management and stockpile locations – stockpiling of material will only occur within the site limits of the approved proposal footprint. A temporary stockpile and equipment storage area is proposed on the eastern side of Alfords Point Road underneath Old Illawarra Road overbridge.
- Sediment basins and traps – it is proposed to locate any construction sediment basins within the road formation.

Preliminary environmental investigations indicated that several registered Aboriginal heritage sites and potential archaeological deposits (PADs) occurred near the study area. The proposed road upgrade has the potential to harm Aboriginal objects and as such further investigation was undertaken.

3 Aboriginal Stakeholder Consultation

RMS has developed the *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) to provide a consistent means of effective consultation with Aboriginal communities regarding activities which may impact on Aboriginal cultural heritage and a consistent assessment process for RMS activities across NSW.

The project has been conducted in consultation with the Gandangara Local Aboriginal Land Council (GLALC). No Native Title holders/claimants were registered for the study area.

GLALC was contacted by Barry Gunther, RMS Aboriginal Cultural Heritage Advisor, at the commencement of the project to discuss the proposed road upgrade and invited to participate in the archaeological survey.

The archaeological survey of the study area was arranged with GLALC for Tuesday 27 March 2012. On the scheduled day however, GLALC was unable to participate in the survey.

GLALC will be invited to comment on the draft survey report and comments received will be incorporated and attached as Appendix A.

4 Review of Previous Archaeological Investigations

4.1 Database search (AHIMS) and known information sources

2.2.1 AHIMS web services

The Aboriginal Heritage Information Management System (AHIMS) is a database operated by OEH and regulated under section 90Q of the *National Parks and Wildlife Act 1974*. AHIMS contains information and records related to registered Aboriginal archaeological sites (Aboriginal objects, as defined under the Act) and declared Aboriginal places (as defined under the Act) in NSW.

A search of AHIMS was conducted on 10 February 2012 to identify registered (known) Aboriginal sites or declared Aboriginal places within or adjacent to the study area (Client service ID 62484). Search results are attached as Appendix B.

The AHIMS Web Service database search was conducted within the following coordinates (GDA, Zone 56):

Eastings: 0316000 - 0318500

Northings: 6235000 - 6239000

Buffer: 0 metres (the search coordinates included a buffer around the study area).

The AHIMS search results showed:

61	Aboriginal sites are recorded in or near the above location
0	Aboriginal places have been declared in or near the above location

The type and distribution of recorded Aboriginal sites within these coordinates are shown in Figure 2. The frequencies of site types within the AHIMS database search area are shown in Table 1.

Table 2. Frequency of site types from AHIMS database search

Recorded Site Types	Context	Frequency	%
Shelter with potential archaeological deposit	Enclosed Shelter	21	34.4
Shelter with art	Enclosed Shelter	9	14.8
Open artefact scatter	Open Site	9	14.8
Shelter with midden	Enclosed Shelter	8	13.1
Shelter with deposit (artefact)	Enclosed Shelter	6	9.8
Grinding grooves	Open Site	4	6.6
Shelter with art and midden	Enclosed Shelter	3	4.9
Shelter with art and deposit	Enclosed Shelter	1	1.6
<i>Total</i>		<i>61</i>	<i>100</i>

2.2.2 Other heritage registers and databases

Other sources of information including heritage registers and lists were also searched for known Aboriginal heritage in the vicinity of the study area. These included:

- Sutherland Shire Council Local Environment Plan 2006;
- Roads and Maritime Services Heritage Register;
- Railcorp Heritage Register;
- Sydney Water Heritage Register;
- State Heritage Register and State Heritage Inventory;
- Commonwealth Heritage List;
- National Heritage List;
- Register of the National Estate;
- Australian Heritage Places Inventory; and
- Historic Heritage Information Management System (HHIMS).

No items of Aboriginal heritage were listed or registered on these databases within the study area.



4.2 Discussion of search results

Results from the combined database searches show that no items of Aboriginal heritage have been registered within the study area, although one site (AHIMS # 45-6-1645) was located on the western boundary. Three sites (AHIMS # 45-6-1789, 45-6-2878, 45-6-1597) were located within 100 metres of the study area.

Review of the available information from heritage register searches shows that the most common site context within the vicinity of the Alfords Point study area is the enclosed shelter, occurring over seventy five per cent. Site types which have been identified as occurring within this context include PAD, art, midden and artefact. Open sites of artefact scatters and grinding grooves represent less than twenty five per cent of identified sites in the area.

4.3 Previous archaeological investigations

Previous archaeological investigations in the vicinity of Alfords Point have primarily taken place in response to the release of land for housing development and infrastructure projects. These investigations have primarily involved pedestrian survey, although some excavations have taken place in the area. The pertinent results of these investigations are summarised below.

As a part Sutherland Shire Council's LEP for the West Menai urban release area a survey was undertaken in an area bounded by Heathcote Road in the west and Mill Creek and its tributaries in the east and south east (over 500m west of study area). The study identified seven occupation shelters based on shell remains, a shelter with art, a series of grinding grooves with an associated shelter and artefacts, and grinding grooves (sites M1-10). Thirteen potential occupation shelters were also identified. Subsequent field surveys in the Mill Creek area identified a further fifteen sites (M11-25).

A survey along the western side of Alfords Point Road was undertaken in 1983 prior to housing development. Two small rock shelters with archaeological potential were identified outside of the study area, later designated as Turpentine Close PAD1 (AHIMS 45-6-2878) and Blackwattle Place PAD1 (AHIMS 45-6-2868). Turpentine Close PAD1 was located within fifty metres of the western boundary of the study area.

A survey south east of the current study area was undertaken in 1987 as a part of a housing development in Illawong. An open artefact scatter was identified during field survey near a cleared fire trail. The scatter consisted of eight artefacts of chert and silcrete. Although open sites were rare in the Woronora plateau, the site itself (Hamelin Place 1 - AHIMS # 52-3-0338) was disturbed by the construction of the fire trail and was considered to be of low significance in a regional context.

A comprehensive survey of the Sutherland Shire Walking Track Network which included the Bonnet Bay Walking Track, the Woronora Valley Track and the Great Kai'mia Way, part of which skirts the suburb of Alfords Point was recently undertaken (KNC 2008). Fifty sites consisting of shelter, midden and artefacts were identified on the Great Kai'mia Way, twenty three of which had been identified in previous investigations. Of these sites, sixteen shelters were identified in the vicinity of Alfords Point.

Excavations carried out on four sites at Bardens Creek, south west of the southernmost point of the current study area, Bardens Creek 1, 2, 5 and 9 (AHIMS # 52-2-0770, 52-2-0771, 52-2-0774 and 52-2-0778) revealed backed and bipolar artefacts suggesting the shelters had been utilised in the Middle to Late Bondaian. Low numbers of silcrete or chert artefacts and the dominance of quartz in the assemblage further indicated that the initial occupation of the shelters would have taken place in the later Middle Bondaian (Attenbrow 1981:78-80). Assessment of the art identified at the Bardens Creek sites 1, 2, 5, 7, 8 and 9 showed similarities to the broader Woronora Catchment with some motifs represented being visible across the Sydney-Hawkesbury region.

Excavation of rock shelters M11 and M12 on Mill Creek, located west of the study area, revealed similar findings (Koettig 1985). The artefact assemblage at site M11 showed two distinct technological phases corresponding to the transition from Middle to Late Bondaian technology. Excavations at M12 showed contemporaneous occupation of these sites in the lower (earlier) phase. Site M11 yielded radiocarbon dates which showed a continued use of the shelter from 2220 +/- 70 BP to 480 +/- 70 BP.

Excavations were undertaken of two rock shelters for the Alfords Point Housing Development west of the study area: sites AP1 (AHIMS # 45-6-1645) and AP2 (AHIMS # 45-5-1646). Stone artefacts, seeds and shell were identified at both shelter sites. Results from site AP1 suggested a single use event, while the deposit at AP2 suggested it would have been used sporadically over time (McIntyre 1984a, 1984b).

5 Landscape Context

The Alfords Point study area is located across broad ridge with moderate to steep slopes and broad to narrow valleys of the Hawkesbury Sandstone geology. The study area overlooks Mill Creek and several of its tributaries to the west and the Georges River to the east and north.

The study area runs across three separate soil landscapes; the Lucas Heights residual landscape from the southern boundary to the approximate vicinity of the 132 kv transmission line and the Hawkesbury colluvial, Lambert erosional and Lucas Heights landscapes north of this point to the Georges River boundary. The Lucas Heights landscape typically occurs on undulating crest and ridge landforms across plateau formations while the Hawkesbury landscape occurs as narrow ridges with deeply incised valley and frequent rock outcrops. The Lambert soil landscape is characterised by low rolling hills with frequent rocky outcrops of Hawkesbury Sandstone (Chapman and Murphy 1989).

Vegetation in the vicinity of the study area consists primarily of a eucalypt, angophora and turpentine upper storey with a moderately dense understorey on the slopes which includes acacia and banksia and a dense understorey including xanthorrhoea, ferns and bracken along the gully floors and creek lines. Sparse low shrubs and heathlands are dominant in the Lambert soil landscape.

The study area landscape is set on Hawkesbury Sandstone with primarily residual soils. Archaeologically, Hawkesbury Sandstone geology has a strong relationship with occupational rock shelters and rock art, which are locational specific features meaning they are not spread uniformly on a large scale but rather dotted within the geology. Likewise residual soils on sandstone geology tend not to facilitate wide even distributions of archaeological objects and favour pointed concentrations of artefacts (such as within the protected deposits of rock shelters). Implications for the study area: archaeology if present will likely be contained to very specific locations.

6 Regional Character

Shelter sites were the predominant recorded site type in the vicinity of the study area. Natural shelter formations are likely to occur in hillslope landform contexts, which are one of the key features of the study area and surrounding landscape.

Archaeological investigations of the surrounding area have demonstrated that shelter sites were used for a variety of purposes. Remaining evidence of those activities might include stone artefacts, shell midden material, pigment art, stencils and engravings.

The most frequent recorded shelter site type in the vicinity of the study area was shelter with potential occupation/archaeological deposit (PAD). Other site types included shelter with deposit (identified artefact(s) and/or shell within the shelter) and art sites – including both drawn and stencil techniques.

Recorded open sites were rare in the vicinity of the study area. Often the steep terrain associated with the ridge lines in the area would either preclude frequent or lengthy activities in the open that would result in the deposition of large quantities of stone artefacts or shell material, as well as the probable low level of survivability of archaeological deposit in steep, sandy contexts. Archaeological deposit survivability would be higher in shelter floor deposits.

7 Site Predictions

Based on information from previous archaeological investigations, landscape context and regional character, the most likely site types to occur within the study area include:

Shelter sites (occupation deposit and/or art) - likely to occur where suitable overhangs have formed in the local sandstone bedrock. Overhang formations will likely be frequent in steep portions of the study area.

Open sites (artefact scatters and isolated artefacts) - surface artefacts are possible where high surface visibility and moderate gradients exist.

Grinding groove sites - potential to occur where suitable outcrops of bedrock and access to flowing or standing water. That could include areas where standing water would gather on larger outcrops in hillslope contexts.

8 Sampling Strategy

The aim of the archaeological survey was to conduct a full coverage survey of the study area on foot and identify Aboriginal sites.

The study area was divided into seven survey units based around two landforms within the study area – *simple slope* and *ridge crest*. Each landform was divided into different survey units where they were bisected by Alfords Point Road and Brushwood Drive (Figure 3).

Due to the narrow width of each survey unit, only one transect was generally required to provide full survey coverage. Two or three transects were completed in wider or steeper areas as required.

Based on the archaeological and landform context of the study area, the survey team closely inspected any area of exposed sandstone for shelter sites or engravings. Other areas closely inspected were areas of high visibility and exposure to inspect for stone artefacts and/or shell material and large old growth trees for evidence of Aboriginal bark removal.

9 Field Methods

The survey team consisted of two people working over one day. The survey team comprised Jaclyn Ward and Josh Symons (KNC).

All survey units were inspected by pedestrian survey.

The study area was located across a broad ridge. Terrain conditions across the ridge crest landform tended to be flat to gently sloping. The slope landform units were associated with the Georges River and a smaller, modified drainage line. Survey units were defined by the study area boundary and landform.

The survey team was equipped with maps showing the boundaries of the study area. The maps were printed onto an aerial background.

Sites were defined by the spatial extent of objects and obvious physical boundaries (i.e. limits of shelter).

All GPS recordings were made in WGS84.

Records generated through this assessment have been maintained.

Sites were recorded using an AHIMS Site Recording Form and submitted to the AHIMS Registrar for inclusion on AHIMS in accordance with section 89A of the *National Parks and Wildlife Act 1974*.

10 Results

No Aboriginal objects were identified within the study area.

Six sites were located outside of the study area boundaries, within 100 metres of the project boundary.

These sites, consisting of four shelter sites, a grinding groove site and an open artefact scatter, are discussed in more detail below.

The location of known Aboriginal sites near the project boundary (study area) are shown in Figures 4-7 following.



Figure 3. Survey units

10.1 Sites outside the study area (within 100 metres of the project boundary)

AHIMS Site ID:	41-6-0031
Site Name:	AP S1
Site Type:	Shelter with PAD
Property Type:	Public reserve
Site Coordinates:	GDA 94 MGA 56 317899E 6238125N AGD 66 AMG 56 317794E 6237935N
Landform:	Slope
Vegetation:	Angophora Sp. Fern
Site Extent:	6 m (L) x 1.8 m (H) at drip line x 1.3 m (D)
Site Condition:	Good
Site Boundary Criteria:	Sandstone shelter
Significance:	Moderate
Map:	See Figure 4
Site Contents:	

Alfords Point Shelter 1 (AP S1) consisted of a south east facing shelter located on the western side of Alfords Point Road and approximately 40 m south east of Marlock Place. The shelter was located mid-way down a steep, sandstone covered slope between Marlock Place and a heavily modified watercourse that flowed east beneath Alfords Point Road.

The shelter measured 6 m long, 1.3 m deep and 1.8 m high. The rear wall of the shelter was generally flat and vertical, with a slight indentation towards the south-western corner of the shelter. The overhang provided a generally large shelter with an outlook over the watercourse located downslope 15 m to the south. Surface visibility across the shelter floor was low, with dense fern vegetation across the drip line. The occasional partially buried sandstone boulder was observed across the shelter floor. Apart from the sandstone fragments across the shelter floor, the deposit appeared uniformly level and stable, with potential for buried archaeological deposit.

The shelter is approximately 15 metres west of the project boundary, situated in the northern section of the proposal (refer Figure 4). The shelter was recorded during inspection of the undeveloped land off Marlock Place. The project boundary was revised to ensure the shelter will not be impacted by the proposal.



Plates 1 and 2. Shelter with PAD, AP S1

AHIMS Site ID: 45-6-1645
Name on Register: Alfords Point 2
Site Type: Shelter with midden
Site Coordinates: GDA 94 MGA 56 317750E 6237770N

Shelter site Alfords Point 2 was located west of Alfords Point Road on the northern edge of a public reserve. The site was originally recorded in 1984, with subsurface archaeological excavations also conducted within the shelter (see Section 4). Alfords Point 2 was relocated during the field survey and verified to be outside the study area. The shelter was surrounded by dense vegetation, including ferns and angophora. Surface visibility was 0%, with the vegetation and fallen branches making walking across the drip line of the shelter very difficult.

AHIMS Site ID: 45-5-2878
Name on Register: Turpentine Close PAD1
Site Type: Shelter with PAD
Site Coordinates: GDA 94 MGA 56 317690E 6237299N

The coordinates from the AHIMS register for Turpentine Close PAD1 place it west of Alfords Point Road on Turpentine Close (see Section 4). Turpentine Close was revisited during the current field survey. No evidence was observed of any shelter formations and it was concluded that any shelter formation in the vicinity would have been destroyed when Turpentine Close and associated houses were constructed.

AHIMS Site ID: 52-3-1597
Name on Register: Angophora Place Grinding Groove
Site Type: Grinding grooves
Site Coordinates: GDA 94 MGA 56 317585E 6236412N

Site 52-3-1597 consisted of five grinding grooves identified on a rock platform located adjacent to a first order tributary of Mill Creek. Investigation of the site during the current field survey verified that the site was outside the study area. The field survey also identified that there had been coordinate system error on the AHIMS database relating to the coordinates listed for this site. The coordinates are listed on the AHIMS database as GDA, when in fact they are AGD.

AHIMS Site ID: 45-6-1789
Name on Register: Georges River S.R.A.
Site Type: Shelter with art
Site Coordinates: AGD 66 AMG 56 317837E 6238212

Rock art shelter site 45-6-1789 overlooked the Georges River and was a small shelter (dimensions not recorded) containing white hand stencils and red and white drawings on the ceiling of the shelter. Motifs included a macropod, eels, circles and a series of unidentifiable lines.

AHIMS Site ID: 41-6-0030
Name on Register: AP AS1
Site Type: Open artefact scatter
Property Type: Georges River National Park
Site Coordinates: GDA 94 MGA 56 317820E 6237544N

Site Alfords Point Artefact Scatter 1 (AP AS1) consisted of a scatter of two artefacts on a weathered sandstone exposure. The exposure measured approximately 10 m north-south and 5 m east-west and was bordered by sparse vegetation, including angophora, yellow box, lomandra and tea tree. The site was situated at the eastern edge of the main Alfords Point ridge line, bordered immediately to the east by a vertical 15 m drop. A number of bolts for rock climbing were observed on the cliff face. The site location offered an expansive view over the Georges River and surrounding area. The exposure consisted of a shallow sandy deposit across the low sections of the sandstone exposure.

The site was approximately 15 metres east of the project boundary, in the middle section of the proposed upgrade (refer Figure 4). The site was recorded during field survey and confirmed to be outside the project boundary (study area).



Plate 3. Open artefact scatter, AP AS1



Plate 4. Artefacts recorded at site AP AS1



Figure 4. Known Aboriginal sites in the vicinity of the study area (Sheet 1 – northern section of upgrade proposal)



Figure 5. Known Aboriginal sites in the vicinity of the study area (Sheet 2 – mid section of upgrade proposal, north)

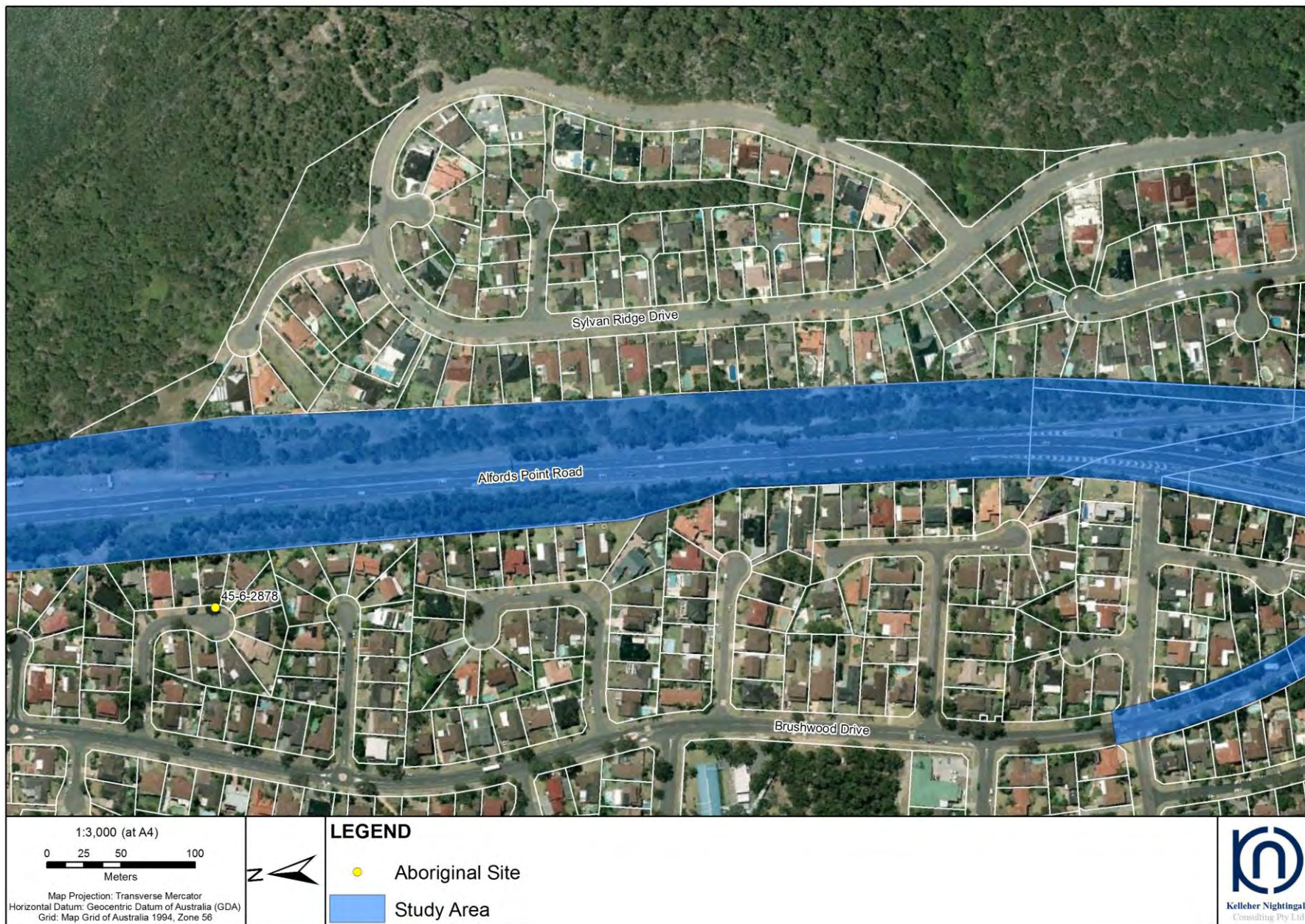


Figure 6. Known Aboriginal sites in the vicinity of the study area (Sheet 3 – mid section of upgrade proposal, south)



Figure 7. Known Aboriginal sites in the vicinity of the study area (Sheet 4 –southern section of upgrade proposal)

11 Survey Coverage Analysis

Overall surface visibility and exposure across the study area was low. However, the low visibility did not significantly impede the assessment of Aboriginal archaeology, as the prime areas of archaeological potential could be fully assessed (i.e. sandstone platforms, overhangs, shelters, exposed tracks).

Details of survey coverage are outlined in Table 3 and details of landform coverage are outlined in Table 4. A further descriptive analysis of survey coverage follows.

Table 3. Survey coverage

Survey Unit	Landform	Survey Unit Area (m2)	Visibility (%)	Exposure (%)	Effective Coverage (m2)	Effective Coverage (%)
1	Slope	17,777	10	20	355.54	2
2	Ridge crest	61,848	40	60	14,843	24
3	Slope	22,548	5	3	33.82	0.15
4	Ridge crest	22,366	3	3	20.13	0.09
5	Ridge crest	9,617	3	5	14.43	0.15
6	Ridge crest	51,692	5	5	129.23	0.25
7	Ridge crest	1,251	40	60	300.24	24

Table 4. Landform coverage

Landform	Landform Area (m2)	Area Effectively Surveyed (m2)	% of Landform Effectively Surveyed	# Artefacts or Features
Slope	40,325	389.36	0.97	-
Ridge crest	146,774	15,307.03	10.43	1

Overall, the majority of the study area was considerably disturbed by extensive road works. Large portions of survey unit 2 were located inside a sandstone cutting, with nil possibility of identifying *in situ* archaeological material. Similarly, survey unit 7 was also located within a sandstone cutting. Almost the entire length of survey unit 6 consisted of a large spoil mound acting as a sound barrier between Alfords Point Road and houses off cul-de-sacs from Brushwood Drive. The only substantially intact portions of the study area were a small area at the northern end of survey unit 6 where shelter site AP S1 was identified and a thin portion on the eastern edge of survey unit 2 in the vicinity of Maxwell Close where some extant sandstone outcrops were located.

Table 5 demonstrates that the overall percentage of slope landform effectively surveyed was low, while the effective survey coverage across the ridge crest landform unit was considerably higher. Surface visibility and exposure throughout survey units 2 and 7 were high due to the fact they were largely located within large sandstone cuttings. Although the visibility and exposure figures were high, they reflected an extensively disturbed context with exposure of bedrock and imported fill.

The survey coverage results of the remaining survey units from the ridge crest landform represent more characteristic results considering the generally low surface visibility across much of the study area. In intact areas, exposed bedrock was assessed for engravings, grinding grooves or art, while shelter floor deposit was assessed for the presence of stone artefacts, shell material or PAD. One shelter with PAD was identified within survey unit 6: AP S1.

12 Analysis and Discussion

No Aboriginal objects (sites) have been identified within the project boundary (study area) as a result of field survey and assessment of the study area.

Much of the study area is disturbed and exhibits no archaeological potential.

Six sites have been identified in the vicinity of the study area, including two situated around 15 metres of the project boundary, a shelter with PAD designated as AP S1 (41-6-0031) and open artefact scatter AP AS1 (41-6-0030) (see Figures 4 and 5).

12.1 Aboriginal settlement history of the study area

The principal remaining evidence of Aboriginal activity within the study area and surrounds was evidence of activities and habitation within shelter formations (section 4). The Alfords Point area is a landscape rich with recorded shelter sites, representing an extensive and varied use of the surrounding landscape.

Many of the shelter sites in the area were shelters with PAD, meaning that no evidence of Aboriginal activity was identified at the time of the recording, but there was deemed potential for subsurface archaeological material in the shelter deposit. Subsequent archaeological excavations confirmed that many of these PADs contained Aboriginal objects, some of which were over 2,000 years old.

AP S1 is consistent with other PADs within the general area and it can be inferred that the location was part of the larger identified archaeological landscape.

13 Scientific Values and Significance Assessment

13.1 Assessment criteria

One of the primary steps in the process of cultural heritage management is the assessment of significance. Not all sites are equally significant and not all are worthy of equal consideration and management (Sullivan and Bowdler 1984; Pearson and Sullivan 1995: 7). The determination of significance can be a difficult process as the social and scientific context within which these decisions are made is subject to change (Sullivan and Bowdler 1984). This does not lessen the value of the heritage approach, but enriches both the process and the long term outcomes for future generations as the nature of what is conserved and why, also changes over time.

The assessment of significance is a key step in the process of impact assessment for a proposed activity as the significance or value of an object, site or place will be reflected in resultant recommendations for conservation, management or mitigation.

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010) requires significance assessment according to criteria established in the *Australia ICOMOS Burra Charter, 1999* (Australia ICOMOS 1999). *The Burra Charter* and its accompanying guidelines are considered best practice standard for cultural heritage management, specifically conservation, in Australia.

Guidelines to the *Burra Charter* set out four criteria for the assessment of cultural significance:

- Aesthetic value - relates to the sense of the beauty of a place, object, site or item;
- Historic value - relates to the association of a place, object, site or item with historical events, people, activities or periods;
- Scientific value - scientific (or research) value relates to the importance of the data available for a place, object, site or item, based on its rarity, quality or representativeness, as well as on the degree to which the place (object, site or item) may contribute further substantial information; and
- Social value - relates to the qualities for which a place, object, site or item has become a focus of spiritual, political, national or other cultural sentiment to a group of people. In accordance with the OEH *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*, the social or cultural value of a place (object, site or item) may be related to spiritual, traditional, historical or contemporary associations. "Social or cultural value can only be identified through consultation with Aboriginal people" (OEH 2011:8).

The assessment of these values are brought together to form a comprehensive assessment of significance.

13.2 Statement of scientific significance

No Aboriginal archaeological objects have been identified within the study area. Much of the study area was disturbed and exhibits no archaeological potential.

14 Impact Assessment

No Aboriginal objects, archaeological sites or items were identified in the road upgrade corridor or proposed relocated heavy vehicle inspection bay.

There are no constraints to the upgrade of this section of Alfords Point Road provided all works, including ancillary areas, are confined to the corridor and proposed heavy vehicle inspection bay assessed in this report.

A number of known Aboriginal heritage sites are located in areas adjacent to the assessed corridor and all works for the road upgrade should ensure against any harm (direct or indirect) to nearby Aboriginal objects.

15 Legislative Considerations

The *National Parks and Wildlife Act 1974* is the primary statutory control dealing with Aboriginal heritage in New South Wales. Items of Aboriginal heritage (Aboriginal objects) or declared Aboriginal places are protected and regulated under the Act.

An “Aboriginal object” is defined under the Act as “any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains”. As such, Aboriginal objects are confined to physical evidence and are commonly referred to as Aboriginal sites.

It is an offence to harm or desecrate an Aboriginal object, either knowingly [section 86 (1)] or unknowingly [section 86 (2)]. Harm includes to destroy, deface, damage or move.

Section 87 (2) of the Act provides a defence against prosecution under section 86 (2) if “the defendant exercised due diligence to determine whether the act or omission constituting the alleged offence would harm an Aboriginal object and reasonably determined that no Aboriginal object would be harmed”. This defence appears to specifically relate to Aboriginal objects.

Section 89A of the Act relates to the notification of sites of Aboriginal objects, under which it is an offence if the location of an Aboriginal object is not notified to the Director-General in the prescribed manner within a reasonable time.

Under section 90 (1) of the Act “the Director-General may issue an Aboriginal heritage impact permit”. The regulation of Aboriginal heritage impact permits is provided in Part 6 Division 2 of the Act (sections 90 to 90R).

An Aboriginal heritage impact permit (AHIP) is required for any activity which will harm an Aboriginal object or declared Aboriginal place.

16 Management and Mitigation Measures

Based on the current concept plan, no Aboriginal sites will be impacted by the proposed upgrade of Alfords Point Road.

No further assessment is warranted.

17 Recommendations

Environmental management plans should include the location of identified Aboriginal sites to ensure sites are not inadvertently impacted by road works or ancillary works.

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Appendix A Aboriginal community report

Appendix B AHIMS Search Results



Office of
Environment
& Heritage

AHIMS Web Services (AWS) Search Result

Your Ref Number: 1115

Client Service ID: 62484

Date: 10 February 2012

Kelleher Nightingale Consulting Pty Ltd
suite 911-912 155 King Street
Sydney New South Wales 2000
Attention: Kylie McDonald
Email: kylie.mcdonald@knconsult.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 316000 - 318500, Northings : 6235000 - 6239000 with a Buffer of 0 meters, conducted by Kylie McDonald on 10 February 2012

A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

61	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location.*

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

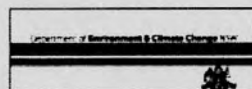
Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister.
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings.
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

PO BOX 1967 Hurstville NSW 2220
43 Bridge Street HURSTVILLE NSW 2220
Tel: (02)9585 6345 (02)9585 6741 Fax: (02)9585 6094

ABN 30 841 387 271
Email: ahims@environment.nsw.gov.au
Web: www.environment.nsw.gov.au





List of Sites (List - Short)

Grid Reference Type = GDA (Geocentric Datum Australia), Zone = 56, Easting From = 316000, Easting to = 318500, Northing From = 6235000, Northing to = 6239000, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone	Eastings	Northing	Context	Site Features	Site Types (recorded prior to June 2001)	Recording (Primary)	Reports (Catalogue Number)	State Arch. Box No (for office use only)
<u>52-3-1488</u>	<u>GKW37 (Mill Creek Tributary) Port Hacking</u>	GDA	56	316986	6236199	Open Site	GDG : 8	None		Kelleher Nightingale Consulting Pty Ltd	
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2903</u>	<u>GKW40 (Shelter Behind Bracken Fern) Botany Bay</u>	GDA	56	317765	6238232	Open Site	AFT : -	None		Kelleher Nightingale Consulting Pty Ltd	
	Status Valid										
	Primary Contact								Permit(s)		
<u>52-3-1484</u>	<u>GKW31 (Isolated Mudstone) Port Hacking</u>	GDA	56	317981	6235064	Open Site	AFT : 1	None		Kelleher Nightingale Consulting Pty Ltd	
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2881</u>	<u>West Menai PAD15</u>	AGD	56	316066	6236080	Enclosed Shelter	PAD : -	None		Jo McDonald Cultural Heritage Management	
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2882</u>	<u>West Menai PAD16</u>	AGD	56	316126	6236160	Enclosed Shelter	PAD : -	None		Jo McDonald Cultural Heritage Management	
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1797</u>	<u>ST George S.R.A.</u>	AGD	56	316766	6237790	Enclosed Shelter	ART : -	Shelter with Art		Bluff, Price	NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1791</u>	<u>ST George S.R.A.</u>	AGD	56	316850	6237430	Enclosed Shelter	AFT : -, SHL : -	Shelter with Midden		Bluff	1333 NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1798</u>	<u>ST George S.R.A.</u>	AGD	56	317049	6238299	Enclosed Shelter	ART : -	Shelter with Art		Bluff, Price	NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		

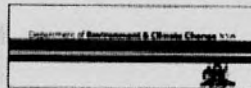
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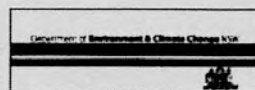
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45-6-0537	Alford's Point B	AGD	56	317646	6238200	Enclosed Shelter	AFT :-	Shelter with Deposit	McIntyre , Rich		NRS/17798/1/401
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-2871	MPO3	GDA	56	316004	6237210	Enclosed Shelter	PAD :-	None	Brayshaw, Irish		
		Status	Valid								
		Primary Contact							Permit(s)		
52-3-1489	GKW38 (Mill Creek Tributary) Port Hacking	GDA	56	318769	6235948	Open Site	GDG : 3	None	Kelleher Nightingale Consulting Pty Ltd		
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-2900	GKW32 (Lomandra Crescent) Botany Bay	GDA	56	316966	6237437	Enclosed Shelter	AFT :-	None	Kelleher Nightingale Consulting Pty Ltd		
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-0536	Alford's Point A: Precinct 9 Alfords Point	GDA	56	317198	6238149	Enclosed Shelter	ART :-, AFT :-	Shelter with Art, Shelter with Deposit	McIntyre , Rich		NRS/17798/1/401
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-2899	GKW30 (Art Site East of Casuarina Rd) Botany Bay	GDA	56	317396	6238134	Open Site	AFT :-	None	Kelleher Nightingale Consulting Pty Ltd		
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-2876	MPO8	AGD	56	316186	6237530	Enclosed Shelter	PAD :-	None	Brayshaw		
		Status	Valid								
		Primary Contact							Permit(s)		
45-6-2635	IF-1	AGD	56	316316	6236710	Open Site	AFT :-	None	McDonald		NRS/17798/1/430
		Status	Valid								
		Primary Contact							Permit(s)		



List of Sites (List - Short)

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<u>45-6-1800</u>	<u>St George S.R.A.</u>	AGD	56	317350	6238150	Enclosed Shelter	ART :-	Shelter with Art	Bluff, Price		NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-0518</u>	<u>Alford's Point 3: Padstow Heights: (duplicate copy of 45-3-0944)</u>	AGD	56	317380	6237530	Enclosed Shelter	AFT :-	Shelter with Deposit	McIntyre		NRS/17798/1/401
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1789</u>	<u>Georges River S.R.A.</u>	AGD	56	317837	6238212	Enclosed Shelter	ART :-	Shelter with Art	Bluff		NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2901</u>	<u>GKW35 (Mill Creek Split Level Shelter) Botany Bay</u>	GDA	56	316832	6237441	Open Site	ART :-	None	Kelleher Nightingale Consulting Pty Ltd		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2904</u>	<u>GKW50 (White Hand) Botany Bay</u>	GDA	56	317479	6238186	Open Site	AFT :-	None	Kelleher Nightingale Consulting Pty Ltd		
	Status Valid										
	Primary Contact								Permit(s)		
<u>52-3-1423</u>	<u>West Menai PAD13</u>	AGD	56	315946	6236040	Enclosed Shelter	PAD :-	None	Jo McDonald Cultural Heritage Management		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1657</u>	<u>Georges River: M5:</u>	AGD	56	316166	6237500	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	Geer	2005	NRS/17798/1/417
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1009</u>	<u>Georges River: Plundered Cave:</u>	AGD	56	316792	6238710	Enclosed Shelter	ART :-, AFT :-, SHL :-	Shelter with Art, Shelter with Midden	ASRSYS		NRS/17798/1/408
	Status Valid										
	Primary Contact								Permit(s)		

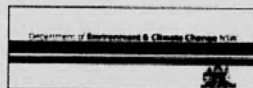
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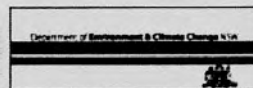
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<u>45-6-1786</u>	<u>Georges River S.R.A.</u>	AGD	56	318335	6238314	Enclosed Shelter	ART :-	Shelter with Art	Bluff		NRS/17798/1/419
		Status	Valid								
		Primary Contact							Permit(s)		
<u>52-3-1492</u>	<u>GKW45 (Red Figure Shelter) Port Hacking</u>	GDA	56	317296	6235139	Open Site	AFT :-	None	Kelleher Nightingale Consulting Pty Ltd		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2873</u>	<u>MPOS</u>	AGD	56	316106	6237040	Enclosed Shelter	PAD :-	None	Brayshaw		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-1655</u>	<u>Georges River: M3</u>	AGD	56	316406	6237390	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	ASRSYS	2005	NRS/17798/1/417
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2884</u>	<u>West Menai PAD18</u>	AGD	56	316586	6237060	Enclosed Shelter	PAD :-	None	Jo McDonald Cultural Heritage Management		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-0961</u>	<u>Georges River: Welk Shells Cave</u>	AGD	56	316696	6237250	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	ASRSYS	2005	NRS/17798/1/407
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2868</u>	<u>Blackwattle Place PAD1</u>	AGD	56	317006	6236970	Enclosed Shelter	PAD :-	None	Unknown Author		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2867</u>	<u>Alfords Point: Rich PAD 2</u>	AGD	56	317250	6236349	Enclosed Shelter	PAD :-	None	Rich		
		Status	Valid								
		Primary Contact							Permit(s)		



List of Sites (List - Short)

Grid Reference Type = GDA (Geocentric Datum Australia), Zone = 56, Easting From = 316000, Easting to = 318500, Northing From = 6235000, Northing to = 6239000, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone	Eastings	Northing	Context	Site Features	Site Types (recorded prior to June 2001)	Recording (Primary)	Reports (Catalogue Number)	State Arch. Box No (for office use only)
<u>45-6-1787</u>	<u>ST George S.R.A.:</u>	AGD	56	317490	6238186	Enclosed Shelter	ART :-	Shelter with Art	Bluff		NRS/17798/1/419
		Status	Valid						Permit(s)		
		Primary Contact									
<u>45-6-1788</u>	<u>Georges River S.R.A.</u>	AGD	56	317560	6238210	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	Bluff		NRS/17798/1/419
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2878</u>	<u>Turpentine Close PAD1</u>	AGD	56	317586	6237110	Enclosed Shelter	PAD :-	None	Unknown Author		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-1654</u>	<u>Georges River:M2:</u>	GDA	56	316154	6237240	Enclosed Shelter	AFT :-	Shelter with Deposit	Brayshaw, Irish	2005	NRS/17798/1/417
		Status	Valid								
		Primary Contact							Permit(s)		
<u>52-3-1487</u>	<u>GKW36 (Mill Creek Tributary) Port Hackling</u>	GDA	56	316714	6236175	Open Site	ART :-	None	Kelleher Nightingale Consulting Pty Ltd		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2865</u>	<u>Alfords Point PAD 1</u>	AGD	56	317146	6236250	Enclosed Shelter	PAD :-	None	Jo McDonald Cultural Heritage Management		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>52-3-1404</u>	<u>Mona Road PAD1</u>	AGD	56	317616	6235150	Enclosed Shelter	PAD :-	None	Brayshaw		
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-1645</u>	<u>Alford's Point 2:</u>	AGD	56	317656	6237590	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	Unknown Author	760	NRS/17798/1/416
		Status	Valid								
		Primary Contact							Permit(s)		

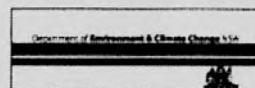
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Grid Reference Type = GDA (Geocentric Datum Australia), Zone = 56, Easting From = 316000, Easting to = 318500, Northing From = 6235000, Northing to = 6239000, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone	Eastings	Northing	Context	Site Features	Site Types	Recording	Reports	State Arch. Box No
									(recorded prior to June 2001)	(Primary)	(Catalogue Number) (for office use only)
<u>45-6-1011</u>	<u>White Hand, White Shoe Cave</u>	AGD	56	318256	6238647	Enclosed Shelter	ART : -, AFT : -, SHL : -	Shelter with Art, Shelter with Midden	ASRSYS		NRS/17798/1/408
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2902</u>	<u>GKW39 (Moonah Rd Talus) Botany Bay</u>	GDA	56	316582	6237877	Enclosed Shelter	AFT : -	None		Kelleher Nightingale Consulting Pty Ltd	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>52-3-1481</u>	<u>GKW06 (Mona Road PAD 1) Port Hacking</u>	GDA	56	317742	6235106	Open Site	AFT : -	None		Kelleher Nightingale Consulting Pty Ltd	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2883</u>	<u>West Menai PAD17</u>	AGD	56	316266	6236440	Enclosed Shelter	PAD : -	None		Jo McDonald Cultural Heritage Management	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2986</u>	<u>HR PAD 11</u>	GDA	56	316058	6237330	Enclosed Shelter	PAD : 1	None		Mary Dallas Consulting Archaeologists, Irish	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2874</u>	<u>MPO6</u>	GDA	56	316274	6237240	Enclosed Shelter	PAD : -	None		Brayshaw, Irish	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>45-6-2942</u>	<u>Jonguill Place PAD 2</u>	GDA	56	317050	6236323	Enclosed Shelter	PAD : 1	None		Mary Dallas Consulting Archaeologists, Irish	
		Status	Valid								
		Primary Contact							Permit(s)		
<u>52-3-1597</u>	<u>Angophora Place Grinding Groove</u>	GDA	56	317481	6236223	Open Site	GOG : 5	None		Mary Dallas Consulting Archaeologists, Irish	
		Status	Valid								
		Primary Contact							Permit(s)		

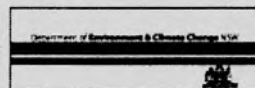
Number of Sites : 61

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List of Sites (List - Short)

Grid Reference Type = GDA (Geocentric Datum Australia), Zone = 56, Easting From = 316000, Easting to = 318500, Northing From = 6235000, Northing to = 6239000, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone	Eastings	Northing	Context	Site Features	Site Types (recorded prior to June 2001)	Recording (Primary)	Reports (Catalogue Number)	State Arch. Box No (for office use only)
<u>45-6-2875</u>	<u>MPO7</u>	AGD	56	316166	6237450	Enclosed Shelter	PAD :-	None	Brayshaw		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-0959</u>	<u>Georges River: Two Caves Overhang;</u>	AGD	56	316822	6237155	Enclosed Shelter	ART :-	Shelter with Art	ASRSYS		NRS/17798/1/407
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1799</u>	<u>ST George S.R.A.;</u>	AGD	56	317130	6238220	Enclosed Shelter	AFT :-	Shelter with Deposit	Bluff, Price	1333	NRS/17798/1/419
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2866</u>	<u>Alfords Point: Rich PAD 1</u>	AGD	56	317200	6236329	Enclosed Shelter	PAD :-	None	Rich		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-1646</u>	<u>Alford's Point 1;</u>	AGD	56	317486	6237530	Enclosed Shelter	AFT :-, SHL :-	Shelter with Midden	ASRSYS	760	NRS/17798/1/416
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2941</u>	<u>Jonquill Place PAD 1</u>	GDA	56	317035	6236309	Enclosed Shelter	PAD : 1	None	Mary Dallas Consulting Archaeologists, Irish		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2898</u>	<u>GKW05 (Blackwatt Place) Botany Bay</u>	GDA	56	317040	6236945	Open Site	AFT :-	None	Kelleher Nightingale Consulting Pty Ltd		
	Status Valid										
	Primary Contact								Permit(s)		
<u>45-6-2880</u>	<u>West Menal PAD14</u>	AGD	56	315986	6236080	Enclosed Shelter	PAD :-	None	Jo McDonald Cultural Heritage Management		
	Status Valid										
	Primary Contact								Permit(s)		

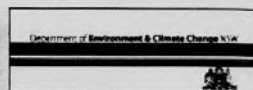
Number of Sites :61

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List of Sites (List - Short)

Grid Reference Type = GDA (Geocentric Datum Australia), Zone = 56, Easting From = 316000, Easting to = 318500, Northing From = 6235000,
Northing to = 6239000, Feature Search Type = AHIMS Features

Site ID	Site Name	Datum	Zone	Easting	Northing	Context	Site Features	Site Types (recorded prior to June 2001)	Recording (Primary)	Reports (Catalogue Number)	State Arch. Box No (for office use only)
45-6-2872	MPO4	AGD	56	316066	6237040	Enclosed Shelter	PAD : -	None	Brayshaw		
		Status	Valid								
	Primary Contact								Permit(s)		
45-6-0962	Georges River;Falling Rock Cave;	AGD	56	316336	6237540	Enclosed Shelter	ART : -, AFT : -, SHL : -	Shelter with Art, Shelter with Midden	ASRSYS	2005	NRS/17798/1/407
		Status	Valid								
	Primary Contact								Permit(s)		
45-6-1790	ST George S.R.A.;	AGD	56	316850	6237490	Enclosed Shelter	AFT : -, SHL : -	Shelter with Midden	Bluff	1333	NRS/17798/1/419
		Status	Valid								
	Primary Contact								Permit(s)		
45-6-1637	Alford's Point 1;	AGD	56	317076	6236180	Open Site	GDG : -	Axe Grinding Groove	ASRSYS	574	NRS/17798/1/416
		Status	Valid								
	Primary Contact								Permit(s)		
52-3-0338	Hamelin Place 1;	AGD	56	317916	6235730	Open Site	AFT : -	Open Camp Site	Byrne	1256	NRS/17798/1/517
		Status	Valid								
	Primary Contact								Permit(s)		