
artefact

...discover

21 July 2014

Norelle Jones
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Dear Norelle,

Re: DRAFT Due Diligence Aboriginal heritage assessment for proposed rezoning of surplus government land at Mooney Mooney.

This letter report has been prepared by Artefact Heritage at your request in relation to rezoning of surplus government land at Mooney Mooney. It outlines the results of a preliminary due diligence Aboriginal heritage assessment which meets the requirements of the Office of Environment and Heritage (OEH) 2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, and includes recommendations as to whether further archaeological investigation may be required in relation to the current proposal.

This report was written by Josh Symons (Archaeologist). Alyce Howard (Archaeologist) provided assistance with site inspection and recording. Nick Butler (Team Leader), Dr Sandra Wallace (Principal Archaeologist), and Natalie Vinton (Principal Heritage Advisor) provided management input and reviewed the report.

Legislative Context

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* was introduced in October 2010 by the OEH (formerly the Department of Environment, Climate Change and Water). The aim of the guidelines is to assist individuals and organisations to exercise due diligence when carrying out activities that may harm Aboriginal objects and to determine whether they should apply for consent in the form of an Aboriginal Heritage Impact Permit (AHIP).

A due diligence assessment should take reasonable and practicable steps to ascertain whether there is a likelihood that Aboriginal sites will be disturbed or impacted during the proposed development. If it is assessed that sites exist or have a likelihood of existing within the development area and may be impacted by the proposed development, further archaeological investigations may be required along

with an AHIP. If it is found to be unlikely that Aboriginal sites exist within the study area and the due diligence assessment has been conducted according to the Code of Practice, work may proceed without an AHIP.

The Proposal

Government Property NSW (GPNSW) is seeking to pursue the rezoning of surplus government land at Mooney Mooney. The objective of the rezoning is to facilitate the redevelopment of the land following permanent closure of the Peat Island mental health facility.

The site is currently zoned SP2 Special Uses (Hospital), SP2 Educational Establishment, SP2 Water Storage Facility and W2 Recreational Waterways (Hawkesbury River and Mooney Mooney Creek) pursuant to the recently gazetted Gosford Local Environmental Plan 2014. A small portion of the site is zoned RE1 Public Recreation.

GPNSW has developed a concept plan for the land which envisages future residential, commercial and community uses of the land. These uses are generally prohibited under the current site zoning provisions. Accordingly, a Planning Proposal to amend the provisions of the Gosford Local Environmental Plan 2014 (Gosford LEP) as they relate to the site to permit the intended mix of uses is required.

An Indicative Conceptual Master Plan has been produced showing potential land-use following rezoning. The Indicative Conceptual Master Plan is shown in Figure 1.

Study Area

The study area includes the boundaries of surplus government land and selected areas of land outside that area currently used as a rescue centre, parkland, and rest area.

For the purpose of this document, the study is generally divided into four distinct segments. These include:

- Peat Island, which is connected to the mainland by an artificial causeway and bridge.
- Western side of the M1. This portion of the study area is bounded by the Hawkesbury River to west and south (Mooney Mooney Point), the M1 to the east, and steep slopes and dense bushland associated with Popran National Park to the north.
- Eastern side of the M1. This portion of the study area is bounded by the Pacific Highway to the east and north, the M1 to the west and the Hawkesbury River to the south. This portion includes a large amount of bushland covered steep slopes and local high point. A water storage reservoir is located near the crest of this landform context.

- Eastern side of the Pacific Highway. This portion of the study area is bounded by Mooney Mooney Creek to the east, Point Road to the north, the Pacific Highway to the west, and Kowan Road to the south.

Figure 1: Indicative Conceptual Master Plan



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Mooney Mooney & Peat Island
Indicative Conceptual Master Plan

Scale 1:4,000 @ A3
0 10 50 100 200m

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This plan is conceptual and for discussion purposes only. Subject to further detail study, Council approved engineering and planning, all dimensions and site preferences to be confirmed. No representation should be placed on this plan for any purpose other than that of the land.

PROJECT NO: SD1200
DATE: 4 JULY 2014
DRAWING NO: CMP03
REV: 4

Aboriginal Heritage Information Management System search

An extensive search of the AHIMS sites register was requested on 6 May 2014 from OEH (AHIMS search # 133583). An area of approximately two kilometres (east-west) by two kilometres (north-south) was searched in order to gain information on the archaeological context of the area, and to ascertain whether there are any previously recorded Aboriginal sites within the study area. Thirteen recorded Aboriginal sites area located within the AHIMS site register search area (see Figure 2).

A total of six recorded Aboriginal sites are located in the study area. These sites include:

- AHIMS site 45-6-0476: this site is called 'Spectacle Island, Mooney Mooney' and is not listed with a site recorder. The supplied site coordinates place the site on Mooney Mooney Point and in the southern portion of the study area. The AHIMS site number indicates that this recording is an older recording, and is listed as a rock engraving. The original site recording form indicates that the site consists of a number of engravings across flat rock surfaces on the western side of Mooney Mooney Point. The original reference for the recording (Sim 1963) indicates that the group of engravings was identified along a number of flat rock surfaces over a distance of approximately 400 metres and within the grounds of the Peat Island Mental Hospital (Sim 1963: 59). This information indicates that the location of AHIMS site 45-6-0476 as shown in Figure 2 is incorrect.
- AHIMS site 45-6-1836: this site is called 'Cabbage Point' and is listed as a shelter with midden deposit. The site recorder is listed as Warren Bluff. The site location is shown to the north of the study area, and on the eastern margin of a natural feature shown in NSW Land and Property Information as 'Cabbage Point'. The information supplied with the AHIMS results and on the site recording form does not indicate any errors in the location of AHIMS site 45-6-1836 as shown in Figure 2.
- AHIMS site 45-6-1837: this site is called 'Peats Point and is listed as a rock engraving site. The site recorder is listed as Warren Bluff. This site location is shown within the northern portion of the study area and approximately 15 metres east of the Hawkesbury River. Information provided on the original site recording form (recorded 1989) indicate that the site consisted of a several engravings identified across a sandstone platform overlooking the Hawkesbury River. Although it is not mentioned on the site recording form, it is apparent that this site is located in the same area and may include some of the same engravings as identified in 1963 (AHIMS site 45-6-0476). The information supplied on the site recording form and on the AHIMS site register details do not indicate any errors in the location of AHIMS site 45-6-1837 as shown in Figure 2.
- AHIMS site 45-6-1990: this site is called 'Hawkesbury' and is listed as a shelter with midden deposit recorded by Warren Bluff in 1989. The site is shown on the small rise overlooking Mooney Mooney Point and within the study area. The information supplied on the site

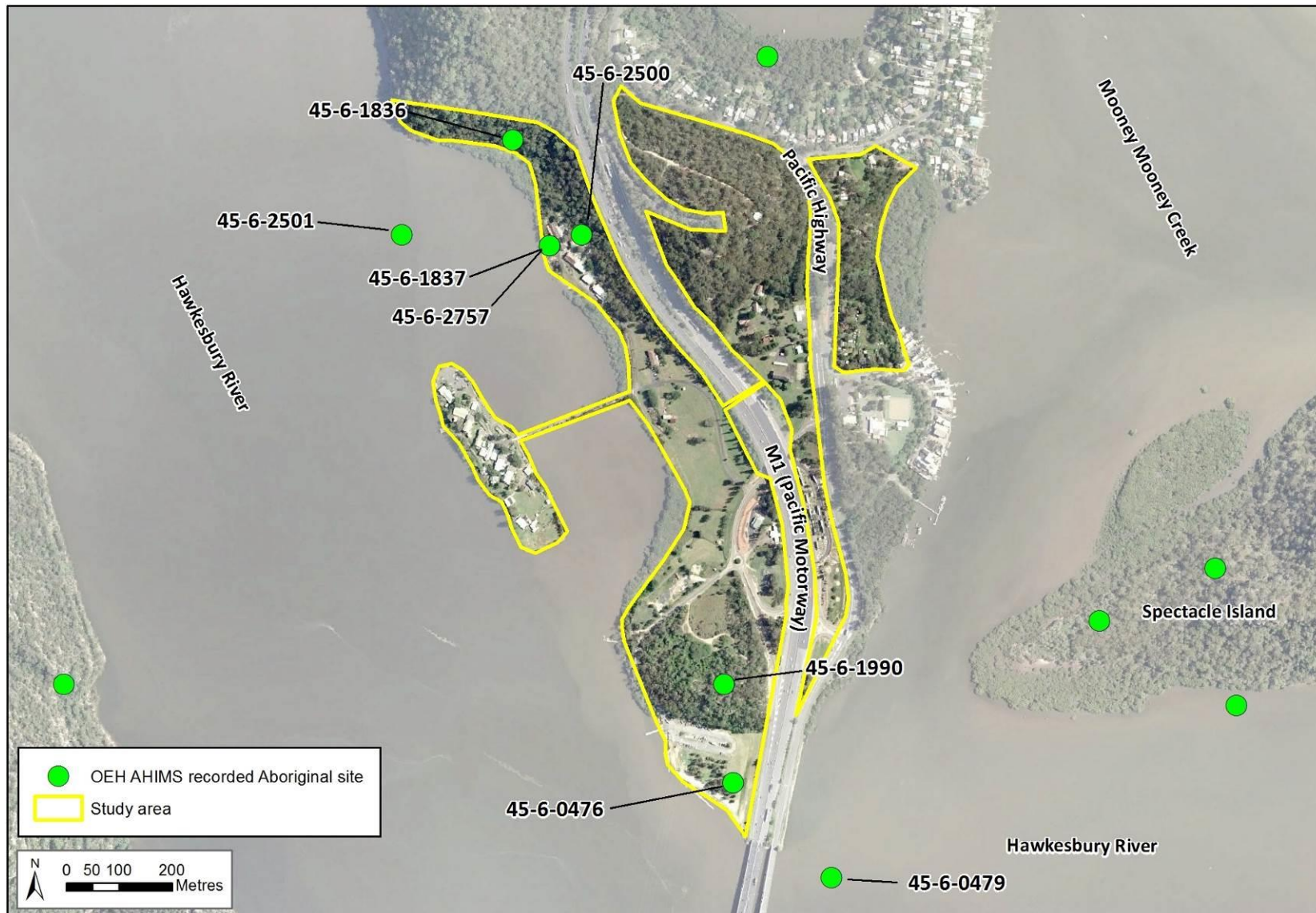
recording form and on the AHIMS site register details do not indicate any errors in the location of AHIMS site 45-6-1837 as shown in Figure 2.

- AHIMS site 45-6-2500: this site is called 'Jordie Cave' and is a shelter with art. The site was recorded by Zol Bodlay in 1992. The site location is shown on the eastern margin of the study area bordering the western side of the M1. The site recording form indicates that the site was located within the Marrammarra National Park, and was accessed via the Marrammarra Ridge Fire Trail. This indicates the location of AHIMS site 45-6-2500 as shown in Figure 2 is incorrect, and that the site is more likely located approximately 10 kilometres to the west in association with the Marrammarra Ridge within the Marrammarra National Park.
- AHIMS site 45-6-2757: this site is called 'Peat Island' and is shown as an art (pigment or engraved) site. The site status on the AHIMS site register is shown as 'Deleted', indicating that although the site is still listed on the AHIMS site register it is no longer a recorded Aboriginal site. No further information on the nature of the original site recording or reason for deletion is available. The site is listed on the AHIMS site register with matching coordinates to AHIMS site 45-6-1837 so may be a duplicate and has been deleted for that reason.

In addition to the six Aboriginal sites shown within the study area, there are an additional two recorded Aboriginal sites in the vicinity of the study area. These include:

- AHIMS site 45-6-0479: this site is called 'Mooney Mooney Point' and is listed as a shelter with archaeological deposit. The AHIMS coordinates place the site in the Hawkesbury River and approximately 220 metres southeast of the study area. It is likely that the site was originally recorded on Mooney Mooney Point, which incorporates the southern portion of the study area. The fact that this site is listed as a shelter site indicates that it was recorded in a location with suitable sandstone overhangs, such as the small rise overlooking Mooney Mooney Point. The site recording from 1936 indicates the site consisted of a shelter on Mooney Mooney Point just below a group of houses. An additional site recording form attached to the original site recording form was submitted to AHIMS by Warren Bluff in 1989. Bluff provides updated coordinates for the site location as well as photos. It is unclear whether this is the same shelter identified in 1936. The updated coordinates provided by Bluff place the site on the southern side of the local high point overlooking Mooney Mooney Point and *within the study area*. This information indicates that the AHIMS listed location for the site as shown in Figure 2 is incorrect.
- AHIMS site 45-6-2501: this site is called 'Saxon Overhang' and is listed as a shelter with art. The AHIMS coordinates place this site in the middle of the Hawkesbury River and approximately 250 metres west of the study area. The original site recording form indicates that, similar to AHIMS site 45-6-2500, the site was located within Mirramarra National Park. Mirramarra National Park is located to the west of the Hawkesbury River, indicating that the site is not located within the study area.

Figure 2: OEH AHIMS site register search results (background © Google 2014)



Information relating to these sites was sourced from supplied data with the AHIMS site register search. This provides a summary of site name, coordinates, recorder, and site type. The aim of the site inspection was to visit the AHIMS listed location of each recorded Aboriginal site within the study area to verify whether that location is likely to be where the site was originally recorded, and if so, what the current condition and nature of that site is.

Archaeological and Historical Context

The study area is likely to have been located within the Guringai language group area. In the 1970s linguist Arthur Capell identified the Guringai language as having been spoken on the north side of Port Jackson, east of the Lane Cove River to the coast, and as far north as Tuggerah Lake (Attenbrow 2010: 33).

On the coast, fish and shell fish were the staple diet of the Guringai. Both men and women were skilled at fishing with the men predominantly using spears on the shore and the women fishing with nets and lines from canoes. The Guringai people also exploited the plentiful resources of the hilly, forested inland such as birds, reptiles and marsupials, as well as yams, fruits, berries and nuts.

Evidence of the Guringai people still exists today in the way of rock engravings, paintings and stencils, axe grinding grooves, scarred trees and middens. Many of these examples of Aboriginal occupation and culture are found within the Ku-ring-gai Chase National Park.

Aboriginal site recordings and previous archaeological investigations in the region indicate that shell middens and sites associated with outcropping sandstone are frequent. Midden sites have been identified in both open and closed contexts, including adjacent to waterways (Artefact Heritage 2014) and in shelter sites. Sites associated with outcropping sandstone include shelter sites, which have the possibility of occurring where suitable overhang formations are located. Suitable overhangs are more likely to occur on steep slope landform contexts and at break of slope between crest and slope, or slope and river flat. Other site types likely to be associated with outcropping sandstone include engravings and grinding grooves. There is a possibility that stone artefacts will be identified anywhere across the landscape, including in association with shell middens, shelter sites, or in open contexts as artefact scatters or isolated finds.

An Aboriginal Heritage Study undertaken in 1996 identified a total of 235 Aboriginal sites within the Hornsby Shire Council area. The Hornsby Shire Council area is situated on the southern side of the Hawkesbury River and adjacent to the current study area. Aboriginal sites were identified in all topographic contexts including on ridge lines and on the estuary foreshore where there were large, open sandstone platforms and where there were rock shelters or overhangs. It was found that large numbers of sites existed on estuary foreshores, that grinding grooves were most often found in creek beds and that rock engravings tended to be found on ridgelines.

After the arrival of Europeans, the Guringai population was severely affected by the introduction of diseases such as smallpox. Later agricultural activity also led to the dislocation of the population and by the 1840s, many Aboriginal people had all but disappeared from the area (McDonald 2008).

The study area falls within the boundaries of the Darkinjung Local Aboriginal Land Council (DLALC).

Results of the Site Visit

An inspection of the study area was undertaken on foot by Artefact Heritage archaeologists Josh Symons and Alyce Howard. Due to the size of the study area, the main aims of the inspection were to:

- Visit the location of previously recorded Aboriginal sites within the study area to gain a better understanding of whether those sites are listed in the correct location.
- Gain an overall impression of the intactness of the study area and the likelihood of intact areas where Aboriginal objects may be located.

The discussion of site inspection observations is divided into two sections. The first section outlines recorded observations at each of the recorded Aboriginal sites within the study area (see Figure 3), whilst the second section provides an outline of the intactness of the study area.

AHIMS site 45-6-0467 and 45-6-1837

As noted in the background AHIMS section above, it is likely that AHIMS site 45-6-0467 and AHIMS site 45-6-1837 are recordings of the same area of engravings. To confirm that the AHIMS listed site location of 45-6-0467 (as shown in Figure 2) was incorrect, the site inspection included a visit to that location. The area was flat and located to the south of a rest area car park. No sandstone rock exposures were observed in the vicinity of the AHIMS listed site location at Mooney Mooney Point.

Plate 1: View south across AHIMS listed location of site 45-5-0476



Plate 2: View north across AHIMS listed location of site 45-5-0476



The AHIMS listed location of Aboriginal site 45-6-1837 was visited during the site inspection. The site is listed on the AHIMS site register as a rock engraving. The site is located across a broad sandstone ledge the slopes down westwards to the Hawkesbury River. Large clumps of shrubs and grasses are located across the sandstone platform obscuring some areas. The AHIMS listed location for site 45-6-1837 is located amongst a clump of shrubs and consequently surface visibility in that area was limited. An engraving of an echidna, listed on the original site recording form for AHIMS site 45-6-1837, was identified during the current site inspection. The other engravings listed on the site card for AHIMS site 45-6-1837 were not identified.

The maximum measurements of the echidna were 540 mm wide and 460 mm high. The engraving was situated on a gently sloping portion of the sandstone platform approximately 12 metres west of the eastern edge of the platform and 20 metres east of the Hawkesbury River. The distance from the Hawkesbury River would differ depending on tide sequence.

Plate 5: Detail of identified echidna engraving



Plate 6: View northwest across location of echidna engraving



Plate 7: View southwest across location of echidna engraving towards Peat Island



Plate 8: View northeast across AHIMS listed location of site 45-6-1837



It was evident during the site inspection that there are large, intermittent, exposures of sandstone along the western shoreline of the Hawkesbury River within the study area. These sandstone exposures were not inspected in full during the site inspection conducted for this investigation. Based on the information supplied in site recording forms for both AHIMS site 45-6-0467 and 45-6-1837, it is clear that there are further engravings located across those sandstone platforms. As these site recordings are dated from 1963 and 1989 respectively, it is possible that there have been changes to vegetation growth and infrastructure placement / landscaping which may affect the current visibility of those engravings. It is also clearly noted in both recordings that the engravings are quite deteriorated. It is therefore possible that some of these engravings, especially those identified in 1963, may be weathered to the point where they are difficult to visually identify. The approximate distribution of sandstone platforms associated with AHIMS site 45-6-0467 is shown in Figure 3.

AHIMS site 45-6-1836

The AHIMS listed location of Aboriginal AHIMS site 45-6-1836 was visited during the site inspection. The site is listed on the AHIMS register as a shelter with midden deposit. The area was located at the transition point between the estuarine mud flats associated with the Hawkesbury River to the southwest and the steep heavily wooded slope to the north and northeast. Due to the dense foliage in the area and steep slope to the north, the hand-held non-differential GPS produced a location error between 10 and 20 metres. With that error margin, a small shelter formation was located at the AHIMS listed coordinates for site 45-6-1836. The shelter formation was relatively small with limited surface exposure on the deposit. Where the ground surface was visible, no shell midden material was observed. It is clear from photographs attached to the original site recording form that the shelter site identified during the site inspection is not the shelter site recorded by Warren Bluff in 1989. The shelter was located on the edge of a very dense and impenetrable patch of lantana. Based on the suitably steep slope and outcropping sandstone it is likely that Bluff's shelter site is located further to the northeast in an area inaccessible during the site inspection.

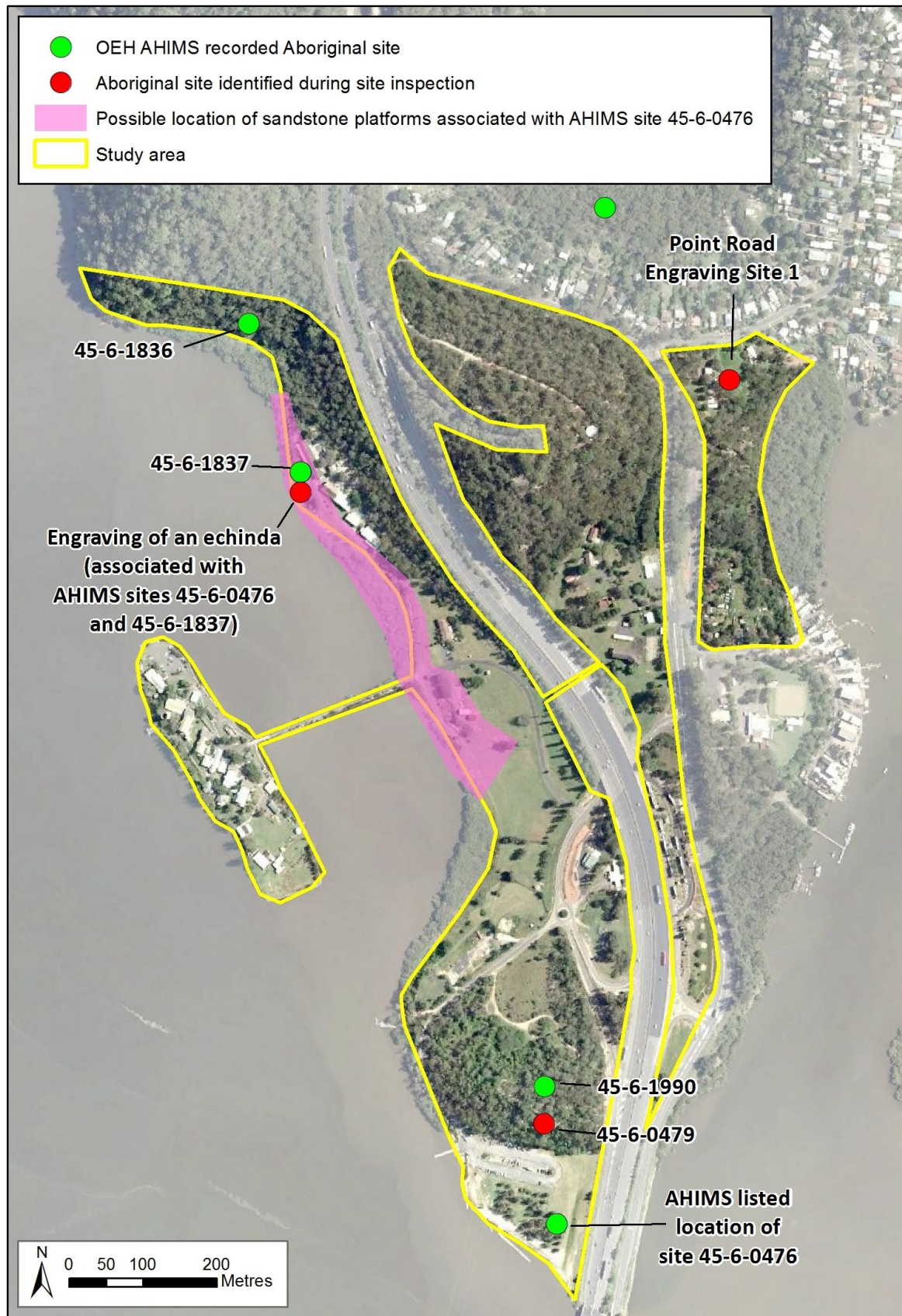
Plate 3: View east into shelter formation located close to AHIMS site 45-6-1836



Plate 4: View of exposed shelter deposit located close to AHIMS site 45-6-1836



Figure 3: OEH AHIMS site register results and sites identified during site inspection (background aerial © Google 2014)



AHIMS site 45-6-2500

The AHIMS listed location of Aboriginal site 45-6-2500 was visited during the site inspection to verify the fact that this site is not located within the study area. Information supplied on the original site recording form indicate that the site is located approximately 10 kilometres further to the west and within the Mirramarra National Park. The AHIMS listed site location appeared to be artificially flat area with some evidence of introduced materials observed, and was situated to the east of a series of abandoned buildings. No evidence of a shelter with art was observed at the listed location.

Plate 9: View north across AHIMS listed location for site 45-6-2500



Plate 10: View east across AHIMS listed location for site 45-6-2500 towards steep, densely vegetated slope



Point Road Engraving Site 1 (AHIMS site 45-5-3135)

GDA94 MGA 56 333005E 6289094N

During the site inspection a cluster of previously unrecorded engravings was identified within the abandoned Mooney Mooney Public School on Point Road. The engravings were identified on a large sandstone ledge along the western margin of the small playing field to the west of the old school buildings. The engravings are located towards the southern margin of the sandstone ledge.

The identified engravings include a depiction of one water fowl, one human foot, and half an arrow. The engravings were grouped within an area measuring two metres squared. These engravings would be an excellent subject for comparative research with other engravings recorded in the region, due to the stylistic uniqueness of each item and possible association with the post-European contact time period.

The site has been registered on AHIMS as 45-6-3135.

Plate 11: Detail of identified water fowl engraving



Plate 22: Detail of arrow and human foot engravings



Plate 13: View southwest towards location of engravings on sandstone platform



Plate 34: View northwest across location of engravings



Site inspection observations

Large portions of the study area have been subject to significant surface disturbance associated with historical land use. Observations across Peat Island indicate that large amounts of introduced fill, comprising both natural sandstone fragments and building rubble, were used to extend the surface area of the island and provide large flat areas for infrastructure. The crest of the island has been heavily developed, including several double storey brick structures and a large water reservoir located at the highest point. It appears that the natural crest of the island was levelled prior to construction works commencing, with some of the removed material likely to have been spread across the adjacent low-lying / tidal areas for land reclamation. Observations indicate that the island has been heavily modified.

The western portion of the surplus government land between the M1 and the Hawkesbury River has also been subject to large-scale modification from historical land use. This modification includes the construction of buildings, roads and associated above and below ground infrastructure. Some areas, such as the AHIMS listed location of site 45-6-2500, have been artificially raised and levelled. The developed areas in this portion of the study area are interspersed with more intact landform contexts. These intact areas include a series of large sandstone exposures along the break of slope bordering the Hawkesbury River, sandstone overhang formations towards the northern margin of the study area, and large cleared gently sloping grassed areas between various built structures. The archaeological potential of the sandstone exposures is highlighted by the identification a series of engravings associated with AHIMS sites 45-6-0467 and 45-6-1837. Slope landform contexts suitable for sandstone overhang formations were largely inaccessible due to dense, impenetrable vegetation cover.

The portion of the study area between the M1 and Pacific Highway included a large wooded area associated with a local high point and existing water reservoir site, and a lower area which has been cleared and developed for several residential houses, a church, abandoned double storey building, and tennis court. With the exception of the water reservoir location, the wooded high point is intact and has steep slopes with numerous occurrences of outcropping sandstone. This area was subject to very limited inspection, which confirmed the high possibility of Aboriginal sites associated with sandstone outcrops occurring in that area. The lower area associated with residential housing is largely cleared and slope down to the north.

The eastern portion of the study area to the east of the Pacific Highway and south of Point Road were largely inaccessible due to residential housing. This portion of the study area slopes down to the east towards the tidal mangrove covered margins of Mooney Mooney Creek. One accessible part of this section of the study area was the abandoned Mooney Mooney Public School off the southern side of Point Road. This area is raised above the estuarine area to the southeast. One engraving site was identified on a sandstone ledge within the former school boundaries. Although the majority of this portion of the study area was inaccessible for the site inspection, the identification of an engraving site highlights the possibility of more intact areas where further engraving sites or middens may occur.

The current rescue centre location appears to have been heavily modified, including landform medication for construction of existing infrastructure and introduced gravels. This area is associated with a local high point and the location of AHIMS sites 45-6-0479 and 45-6-1990. Observations of the high point indicate the potential for intact sandstone outcrops with potential for overhang formations and suitable outcrops for engraving sites.

The locations of AHIMS site 45-6-0479 and 45-6-1990 were not visited during the site inspection. The study area boundaries were altered following the site inspection to incorporate the portion of raised area where sites 45-6-0479 and 45-6-1990 are located. The location of these sites has not been verified on the ground.

The indicated area for expanded car park at the southern margin of the study area is located across a flat area at Mooney Mooney Point. No outcrops of sandstone were identified across this area and, as discussed above, this location appears to have erroneously been listed as the location of AHIMS site 45-6-0476.

Summary of Background Research and Site Inspection Results

In summary it is confirmed that:

- Six Aboriginal sites (AHIMS site 45-6-0467, 45-6-0479, 45-6-1837, 45-6-1837, 45-6-1990 and 45-6-3135) have been confirmed as located within the study area.
- The locations of AHIMS site 45-6-0479, 45-6-1836 and 45-6-1990 have not been verified on the ground.
- The extent of AHIMS site 45-6-0467 has not been verified.
- One Aboriginal site (AHIMS site 45-6-2757) is listed as 'deleted' on the AHIMS site register and is not likely to be a recorded Aboriginal site within the study area.
- One Aboriginal site (AHIMS site 45-6-2500) is located approximately 10 kilometres to the west and is not located within the study area.
- There are portions of the study area where there has been significant impact and ground disturbance.
- There are large portions of the study area where intact landforms occur, and where there exists potential for Aboriginal sites, either in sub-surface contexts or on sandstone platforms / sandstone overhangs.

Conclusions and Recommendations

In accordance with the OEH due diligence guidelines, this due diligence assessment has identified that within the study area there are both recorded Aboriginal sites and area where Aboriginal sites are likely to occur. The due diligence guidelines stipulate that further archaeological investigation of the study area is required.

In the first instance, further archaeological investigation would involve preparation of an Archaeological Survey Report (ASR) in accordance with the OEH *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (2010) [referred to as the 'OEH code of practice']. Preparation of this document involves further background research, a comprehensive archaeological survey conducted in accordance with OEH requirements, impact assessment, significance assessment, and recommended mitigation and management measures. It should be noted that there are some portions of the study area inaccessible due to dense and sometimes

impenetrable vegetation, and that where access to those areas is required for the archaeological survey that access issues are taken into consideration.

The scope of the ASR field survey should include further investigation of the sandstone platforms associated with AHIMS site 45-6-0467 and 45-6-1837. Due to the deteriorated nature of the engravings, the scope of this field investigation should also include night survey with spotlight to further assist engraving identification. The possible extent of AHIMS site 45-6-0467 as shown in Figure 3 is indicative only and based on limited site location information.

The ASR would provide information and recommendations on Aboriginal sites within the study area that should be avoided, such as the identified engraving sites, as well as identifying areas which may require further investigation, such as archaeological test excavation to determine the nature and extent of areas of sub-surface archaeological potential. The ASR should be completed prior to or during the design phase so that the results and recommendations can be taken into consideration in the overall concept design.

It is therefore recommended that further archaeological investigation of the study area is required, with the first stage of investigation comprising of an ASR prepared in accordance with the OEH code of practice. The ASR can be prepared following gateway determination.

If changes are made to the Planning Proposal that may result in impacts to areas not covered by this assessment, further archaeological assessment will be required.

If you have any questions regarding the Aboriginal heritage of the study area or require further information, do not hesitate to contact me at any stage of your project and I would be happy to advise.

Yours sincerely,

Josh Symons



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