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Aboriginal and Cultural Heritage Consultation and Investigation

**Kings Hill Interchange and Stormwater Channel
Pacific Highway,
North Raymond Terrace**



**Report to
APP
Sydney, NSW
13th, September, 2019**

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Aboriginal Heritage Assessment

Table of Contents

1. Introduction	page 2
2. Description of Proposal	page 8
3. Site Location	page 9
4. Aboriginal Community Consultation	page 12
5. Landscape Context	page 13
6. Archaeological Context	page 17
7. Predictive Model	page 19
8. Field Survey	page 20
9. Impact Assessment	page 21
10. Recommendations	page 22
11. Certification	page 22
12. References	page 23

Appendix

- A. Aboriginal Community Report*
- B. Aboriginal community Consultation Documentation*
- C. AHIMS search results*

1. Introduction

1.1 Background

This report has been prepared at the request of APP (Level 7, 116 Miller Street, North Sydney, NSW), to assess potential impacts to Aboriginal Cultural Heritage associated with a proposed grade separated interchange on the Pacific Highway at Kings Hill, Raymond Terrace, and an associated drainage channel between the Pacific Highway and Grahamstown Dam. The assessment includes:

1. Identification of Aboriginal objects that are, or are likely to be, present in an area;
2. Identification of activities associated with the proposals that are likely to harm Aboriginal objects (if present); and
3. Establish the requirement, if any, for an Aboriginal heritage Impact Permit (AHIP).

A Local Environment Study (LES) was carried out within the Port Stephens local government area (LGA) commencing in 2002, which included assessment of past and current land uses. . As part of this LES, an Aboriginal Heritage assessment was conducted over the land now known as Kings Hill Urban Release Area. The assessment, Roberts, 2003, included consultation with the local Aboriginal Community in accordance with the then Office of Environment and Heritage guidelines and the Department of Planning requirements..

During site investigations, caves and rock shelters were located on site at Kings Hill. They were overgrown with lantana and other weeds which made exploration difficult and accurate assessment impossible. Photographs of the caves were taken. The find was preliminarily assessed as being of high significance.

Kings Hill and its associated ridgeline is considered to be of extremely high Aboriginal heritage significance. Significance is also attributed to the wetlands. The rest of the study area is not considered significant. It must be noted that hills and other parts of the ridgeline not in the study area were not investigated but would appear to be of extreme significance as well.

Subsequently, the LES recommended that an area of Aboriginal heritage significance be conserved. This area received a conservation zoning of E2 in the *Port Stephens Local Environmental Plan 2013* and the *Port Stephens Development Control Plan 2014*. The location of the conservation area is shown in Figure 1. Areas of land investigated outside of the conservation area, which included the proposed interchange location, were not found to contain any characteristics indicating heritage significance. Therefore, these areas were not subject to any further Aboriginal or European heritage assessment prior to development of that land.

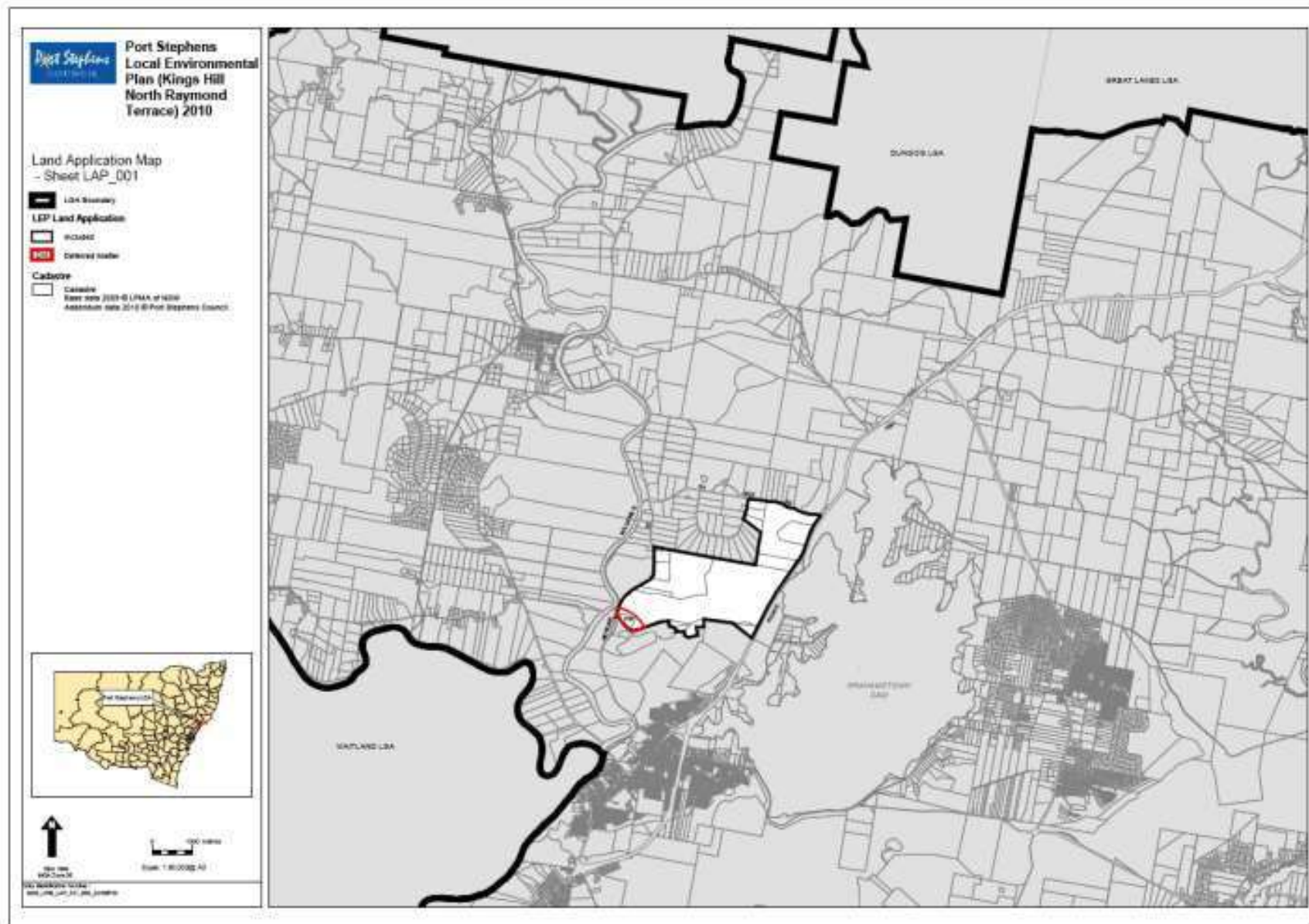


Figure 1 Location of Kings Hill and Aboriginal heritage conservation area within the Port Stephens Local Government Area

Prior to targeted studies being undertaken for the proposed Kings Hill interchange and stormwater channel projects, studies were undertaken for the upgrade of the Pacific Highway adjacent to the Kings Hill development. The Pacific Highway bypasses Raymond Terrace on a 7.6km dual carriageway bypass opened in December 1998. Originally, the Highway passed through Raymond Terrace via Adelaide Street. Land was acquired to widen this route to a six-lane divided carriageway and widening was undertaken on some sections. However, to avoid severing the built up area the Northumberland County planners sought an ultimate highway alignment that would bypass the built up area of Raymond Terrace. A reservation had been gazetted for many years by the time construction was commenced in November 1993. The bypass was planned to have only two lanes at first, but additional Federal funding allowed the completion of the four-lane bypass in one stage. The Raymond Terrace Bypass was opened to traffic in December 1998.

Additionally, studies were taken for the Grahamstown Dam augmentation (constructed in 2005 environmental studies commenced in 1993) which is adjacent to the Pacific Highway and Kings Hill development.

No Aboriginal heritage constraints were identified as part of either of these investigations.

In June 2015, Myall Coast Archaeology provided a preliminary Aboriginal assessment report to Arcadis (formerly Hyder Consulting) to support the Review of Environmental Factors reports being prepared for the Kings Hill Interchange and Stormwater Drainage.

It is important to place the previous archaeological and heritage assessments in legislative and assessment context.

1.2 Legislative Context

Under Section 52 of the *Aboriginal Land Rights Act 1983*, Local Aboriginal Land Council has the following functions in relation to Aboriginal culture and heritage:

- (a) to take action to protect the culture and heritage of Aboriginal persons in the Council's area, subject to any other law,*
- (b) to promote awareness in the community of the culture and heritage of Aboriginal persons in the Council's area.*

The primary law which affects the above functions of a Land Council is the *National Parks and Wildlife Act 1974*, (NPW Act) administered by the Department of Planning, Industry and Environment (DPIE).

It has, as one of its Objects, the conservation of objects, places and features of **significance** to **Aboriginal people**. That is, once an object, place or feature is determined to be significant to Aboriginal people, it becomes protected by the NPW Act. It is not every object, place or feature that the Act protects, but those that are "of significance to Aboriginal people".

Section 85 of that Act, vests authority in the appropriate delegated officer under the Act the responsibility for the proper care, preservation and protection of any Aboriginal objects, features and places.

Under section 86 of the NPW Act, it is an offence to 'harm' an Aboriginal object. 'Harm' means any act or omission that:

- *Destroys, defaces, damages or desecrates the object*
- *Moves the object from the land on which it had been situated, or*
- *Causes or permits the object to be harmed.'*

The NPW Act defines an Aboriginal object 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.'

Under Section 87 of the Act there are certain defences and exemptions that permit harm.

The NPW Act provides several defences to prosecution for an offence. Where a person either knows or does not know they are harming an Aboriginal object, a person has a defence under section 87 where:

- *The harm or desecration concerned was authorised by an Aboriginal heritage impact permit (AHIP), and the conditions to which that Aboriginal heritage impact permit was subject were not contravened.*
- *Due diligence was undertaken and it was reasonably determined that no Aboriginal object would be harmed.*
- *Was work on land that has been disturbed for maintenance of existing roads, fire and other trails and tracks, maintenance of existing utilities and other similar services*
- *Land is disturbed if it has been the subject of human activity that has changed the land's surface, being changes that remain clear and observable.'*

Harm does not include something that is trivial or negligible.

The regulations under the Act set out a generic "Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales" for initial assessment, as well as, a "Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales" to assess the significance and extent of archaeological evidence (in order to apply for an AHIP), identified as a result of a Due Diligence Assessment. Roads and Maritime has developed its own code under the legislation - *Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI)*.

The regulated code links to other planning processes under the EP&A Act as follows:

'4.1 Development under Part 4 EP&A Act and activities under Part 5 EP&A Act Consideration of the potential impacts of development on Aboriginal heritage is a key part of the environmental impact assessment process under the Environmental Planning and Assessment Act 1979 (EP&A Act). The standards in this code can be used or adapted by proponents to inform the initial assessment of the environmental impacts of an activity on Aboriginal heritage. An environmental impact assessment which meets all of the requirements of this code will satisfy the due diligence test. Alternatively, you could adapt the requirements of this code, provided it still meets the ordinary meaning of exercising due diligence (see section 7.7).

If it is found through this initial assessment process that Aboriginal objects will or are likely to be harmed, then further investigation and impact assessment will be required to prepare information about the types of objects and the nature of the harm. This is further explained at step 5 in section 8.

If you are going to harm a known Aboriginal object you will need to apply for an AHIP. In this situation, the need to obtain the AHIP is in addition to any approval under the EP&A Act (unless the project is subject to Part 3A EP&A Act).'

Consent under these sections of the EP&A Act, do not automatically permit the harming of an Aboriginal object.

Proponents must consult with an Aboriginal Land Council with respect to determining significance. **The determination of significance is a matter for Aboriginal people and not a Government Department or authority.**

Referral to DPIE is only triggered if an Aboriginal Object is likely to be harmed and an AHIP is required.

This assessment has been undertaken in accordance with stage 2 of the Roads and Maritime PACHCI procedure. The assessment further supports and updates the REFs being prepared for the proposed interchange and stormwater channel.

1.3 Assessment Context

This report, although a standalone report, cannot be viewed in isolation but in the context of the various assessments taken over the entire study area (Figure 2) over many years.

The following studies have occurred over or adjacent to the study area;

- The assessment for the Kings Hill LES, conducted by Roberts (2003), initially but subsequent reviews prior to and post Gazettal of the LEP for the Kings Hill Precinct. The study area forms a parcel of land of about 810 hectares, which includes 16 existing allotments of varying size. It is bounded to the east by the Pacific Highway, to the north by Six Mile Road and an existing rural residential subdivision, off Winston Close to the west by Newline Road and the Williams River, and to the south by Hunter water corporation land (open paddocks forming part of the Grahamstown dam spillway) and an abandoned quarry. This study not only assessed that land but the adjacent land for associated infrastructure including road access to the Pacific Highway and any potential widening.
- The Assessment by for the Upgrade of the Pacific Highway which borders the study area on the east (Brayshaw, 1997).
- The Assessment for the Grahamstown Dam augmentation for Hunter Water (Paton, 1992).

All assessments listed above took into account the land for the proposed interchange the stormwater channel footprint. The various assessments / visual inspections cumulatively covered the entire project site.

No significant archaeological objects were observed nor archaeological potential identified.

This is an important point to understand. Archaeological assessments not only assess the immediate visibility of the land but the lands ability to reveal or conceal archaeological evidence. That is the landscape is assessed in an undisturbed state to determine potential. None of the studies indicated archaeological potential other than the immediate Kings Hill area, which was subsequently rezoned for cultural value (see Figure 1).

It must be stressed that the entire area has been assessed and rezoned according to its constraints and attributes.

The Aboriginal Community did not raise any concerns over the land to be developed. They did have great interest and attributed significance to Kings Hill itself. **This is an important aspect of a cultural heritage assessment;** that Aboriginal people have investigated and reported on the cultural sensitivities.

1.4 Assessment Personnel

The research and report were undertaken by Len Roberts, (BA [Arch.], Grad. Dip. Comp., Dip Sp. Ed.,) who also holds a certificate in Archaeological fieldwork, from Tel Aviv University, Israel. Len has worked on archaeological projects in Australia and overseas.

Len is a member (since 1990) and was Deputy Chairperson (2007 -2011) of Karuah Local Aboriginal Land Council.

He was appointed, in 1977, (under S32AV of the *Local Government Act 1919*) as a part time, non-judicial expert (having, special knowledge of and experience in law, local government administration or town planning administration) member of the Local Government Appeals Tribunal from 1977 until it was replaced by the Land and Environment Court in 1980. He has been an expert witness before the Land and Environment court on Aboriginal heritage matters. He has been a Councillor in NSW Local Government for over 28 years and is currently serving on Midcoast Council.

Len has also taught English and Society (Australiana) at Beifang University, Yinchuan, China as an invited lecturer in second semester 2011.

Len has undertaken archaeological work for various planning and surveying companies, as well as large organizations such as AMP, Department of Public Works, RTA, Local Government Authorities, Energy Australia, Australian Rail and Track Corporation, Rio Tinto, Woolworths and numerous other clients. The projects have ranged from small aquaculture (at sea), industrial and residential projects to large rezoning proposals, as well as linear surveys for sewerage treatment upgrades, pipelines, transmission lines, wind farms, rail line upgrades and highways. The assessments have included Due Diligence assessments, gateway determinations, as well as assessments under, Parts 3A, 4 and 5 of the EP & A Act. Len has completed various S90 applications, as well as identifying and recording in excess of 1,000 Aboriginal objects and has authored in excess of 150 reports in the last 25 years.

Len also undertook the initial assessment which informed the Kings Hill LES/LEP, as well as studies on nearby land. Those assessments were conducted in association with the local Aboriginal community. The initial assessment identified significant Aboriginal cultural heritage area which has been protected within the LEP and allowed development outside of the protected area. Because of this work, as well as his attachment to the Local Aboriginal Community, Len is recognised as an authority on the Kings Hill Aboriginal Heritage.

The field survey was undertaken by Jamie Merrick and Brendan Lilley, from WLALC, on 24 May 2019. They were accompanied by Deb Swan, Aboriginal Cultural Heritage Officer RMS, other RMS personnel and this Archaeologist.

2.0 The Proposal

Roads and Maritime Services (Roads and Maritime) propose to build a grade separated interchange and stormwater channel at Kings Hill within the Port Stephens Local Government Area (the proposal).

The main features of the proposed interchange (currently designed to concept level) are:

- An overpass that would span the Pacific Highway
- A new road (the East-West Link road) that would connect the Kings Hill development to the interchange. It runs in an east-west direction from the future Kings Hill town centre intersection (which falls outside the scope of this proposal), through the interchange roundabout, and over the Pacific Highway overpass.
- An interchange roundabout that would connect the northbound exit ramp and northbound entry ramp to the East-West Link road. It would separate westbound traffic on the overpass (from the southbound exit ramp) and traffic on the northbound exit ramp.
- Two northbound (entry and exit) and two southbound (entry and exit) ramps that would connect the East-West Link road to the Pacific Highway and enable all in and out and south and north movements.
- Drainage infrastructure (e.g. swales or pipes) that would convey surface flows from the interchange into detention basins, which would discharge into existing culverts located beneath the Pacific Highway.

HWC requires that should development at Kings Hill occur, runoff from the eastern catchment area of the URA would need to be diverted around the Grahamstown Dam. As such, RMS will construct a new stormwater channel to convey post development flows, treated at source within the URA on the west of the Pacific Highway, and prevent stormwater entering into the Grahamstown Dam for any rainfall event up to the 0.2% Annual Exceedance Probability (AEP).

The stormwater channel would be constructed parallel to the Pacific Highway, on the eastern side of the highway, and would extend 3,485 metres from a point 80 metres south of the Pacific Highway and Six Mile Road intersection, to the proposed discharge point at Irrawang Spillway.

Construction of the proposed interchange and drainage channel would require the relocation of three types of essential services that are currently situated in (and therefore conflict with) the construction footprint; Ausgrid 11kV overhead power line, Telstra underground Optic Fibre and Copper communication lines and Hunter Water Corporation 33kV overhead power line.

A number of temporary ancillary facilities would be established for the duration of construction including access tracks and compound areas that would support site offices, workforce parking, plant storage, laydown areas and material stockpiling areas. Temporary ancillary facilities would be rehabilitated at completion of construction of the proposal.

The proposal has been developed to a concept design level and would be further refined during the detailed design phase. The proposal in a regional context is shown in Figure 2.

3.0 Site Location

The proposal is located at Kings Hill within the Port Stephens Local Government Area (LGA), approximately four kilometres north of Raymond Terrace, 30 kilometres north of Newcastle and 135 kilometres north of Sydney. Figure 1 depicts the regional location of the proposal.

Kings Hill is situated on “greenfield” land to the west of the Pacific Highway, opposite Grahamstown Dam. The land that would contain the proposal is owned by KHD and is currently used for cattle grazing. Further west, native vegetation covers the upper slopes and natural ridge line of Kings Hill. This vegetated area has been rezoned as E2 environmental conservation.

To the east of the Pacific Highway, nine hectares of land is owned by KHD, having been acquired by KHD from Hunter Water. All other land east of the Pacific Highway is owned by Hunter Water. This Hunter Water-owned land contains Grahamstown Dam, which covers 2,800 hectares and is the Hunter’s largest drinking water supply dam. The surrounding landscape comprises a mosaic of large tracts of native vegetation within private and publicly-owned land, and patches of cleared land used for agricultural purposes (primarily grazing) and rural-residential properties.

For the purpose of this assessment, the study area comprises a 50 metre buffer of the interchange concept design footprint. It also includes two compound areas, two stormwater detention/treatment basins and the proposed 3.1 kilometre alignment of the Telstra Optic Fibre that is required to be relocated.

The study area for this assessment (Figure 3) encompasses the proposed interchange and stormwater channel, the alternative stormwater channel location on the western side of the Pacific Highway, compound areas, access tracks, utilities relocations and an area of Irrawang Spillway adjacent to the proposals. This study area was confirmed with Roads and Maritime during a meeting held on 10 May 2019. It includes the existing Pacific Highway, land owned by KHD to the east and west of the highway (within the Kings Hill URA) and land currently owned and managed by Hunter Water to the east of the highway. The western shore of Grahamstown Dam, the Hunter’s largest drinking water supply dam, is located in close proximity to the eastern boundary of the study area.



Figure 2 Location of Proposal



Figure 3 Study Area

4.0 Aboriginal Community Consultation

The identified Aboriginal party for consultation purposes has been the Worimi Local Aboriginal Land Council (WLALC).

The WLALC was consulted for this assessment and participated in the field survey in May 2019. WLALC were involved in the production of an assessment report, which is found at Appendix A.

Deborah Swan, Roads and Maritime Services Cultural Officer, conducted the consultation for this assessment on behalf of Roads and Maritime. The Roads and Maritime consultation documentation forms Appendix B.

5.0 Landscape Context

Land Disturbance

Land within the study area has been previously subjected to activities that have resulted in clear and observable changes to the land's surface. Imagery of the land from 1958, 2005 and 2019 (Figures 4, 5 and 6) show clear and observable changes of the lands surface. Even from 2005 to today, there have been significant changes to the lands surface.

Previous activities that have caused land disturbance include road works as part of the upgrade of the Pacific Highway, land clearing and excavation for the Grahamstown Dam augmentation, utility undertakings (power lines, Telstra optic/communication cables), and rural infrastructure (access roads). It unequivocally meets the definition of disturbed land under the NPW Act. The extent of past disturbance within the study area has led to a low likelihood of archaeological potential.

The land and associated infrastructure, irrespective of whether or not it has been previously disturbed, has been assessed for archaeological potential.

For the purpose of this assessment, the construction footprint has been defined as an area inclusive of a five metre buffer of the interchange concept design footprint, and a two metre buffer of the proposed alignment of the Telstra Optic Fibre to be relocated (total width of four metres). The construction footprint also includes a variable buffer (typically 25 metres but up to 35 metres at the widest point) of the southbound exit ramp loop, on the eastern side of the overpass. This larger buffer is to allow for refinement to the geometry of the loop during the detailed design phase. It has been assumed that the entire ground surface within the construction footprint would be disturbed.

General activities that would occur within the construction footprint include:

- Pre-construction work, such as installation of boundary fencing, installation of pre-construction work erosion and sediment controls
- Site establishment, such as vegetation clearing, set-up of stockpile sites and ancillary facilities
- Interchange construction, such as construction of embankments for on and off-ramps, piling of bridge piers, lifting of the overpass bridge super-T girders into place
- Excavation and construction of stormwater channel, including culvert extensions, the Hunter Water Grahamstown Dam access track, the Koala land bridge and vegetating the channel
- Finishing work, such as installation of pavement markings and signposting, site clean-up and demobilisation.

It must be noted that the legislated land use process within the Port Stephens LEP 2013 has already identified the areas to be protected and the areas for development. The area proposed to construct this proposal does not impact on the Aboriginal heritage conservation area.



Figure 4 1958 aerial photograph of the Kings Hill area showing construction footprint and study area



Figure 5 2005 aerial photograph of the Kings Hill area showing construction footprint and study area



Figure 6 2019 aerial photograph of the Kings Hill area showing construction footprint and study area

6.0 Archaeological Context

As stated at 1.2, the DPIE has developed a generic code that provides one process for satisfying the due diligence requirements under the *NPW Act 1974* (as amended). Whilst, it is not mandatory to follow this code, the code is reasonable and practicable and meets the ordinary meaning of exercising due diligence. It is also transferable and replicable as an assessment tool, particularly for preliminary assessment. This assessment follows the sequencing and headings of the generic *“Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, 2010”*

Does the Aboriginal Heritage Information Management System suggest potential?

No. The AHIMS site search is attached as Appendix C. Adjacent areas to the proposal (Kings Hill itself) is considered as significant Aboriginal Heritage and has been registered and zoned as such whereas land outside that area is not. The 2 items are Kings Hill and the caves recorded at the initial investigation.

Is there archaeological potential because the proposal is:

- **within 200m of waters;**
Yes, the project is within 200m of water but the water channel linking the Williams River and Grahamstown Dam have been man made and are not natural. During construction no artefacts were identified and therefore no potential exists.
- **located within a sand dune;**
No,
- **located on a ridge top, ridge line, or headland;**
No
- **located within 200m below or above a cliff face;**
No
- **within 20m of or in a cave, rock shelter, or a cave mouth;**
No but it must be noted Aboriginal Cultural Heritage Significance is attributed to the associated area of Kings Hill which is part of the total development landscape.

Do Previous Assessments in the area suggest potential?

The following studies have occurred over or adjacent to the subject land.

- The assessment for the Kings Hill LES, conducted by Roberts, initially in 2002 but subsequent reviews prior to and post Gazettal of the LEP for the Kings Hill Precinct. The study area is bounded to the east by the Pacific Highway, to the north by Six Mile Road, to the west by Newline Road and the Williams River and to the south by Hunter water corporation land (open paddocks forming part of the Grahamstown dam spillway) and an abandoned quarry.

Findings

Kings Hill and its surrounding ridgeline were found to be highly significant for many archaeological and cultural reasons.

- The Assessment by Brayshaw, 1997 for the Upgrade of the Pacific Highway which borders the study area on the east.

Findings

An isolated artefact was observed in imported gravel. It was assessed as insignificant and

consent to destroy issued.

- The Environmental Impact Statement (EIS) for the Grahamstown Dam augmentation stage 2 works for Hunter Water. These works increased the Full Supply Level to 12.8 metres and provide 50 per cent more storage capacity. The work involved construction of a larger spillway at Irrawang and discharge channel under the Pacific Highway. Work was completed in December 2005, however the EIS was reported in 1993. The Archaeological assessment was undertaken by Paton (1992)

Findings

*5 artefact sites were observed ranging from isolated artefacts (3) and the other two up to 6
No potential observed. Permits issued for research and destruction.*

COMMENT

The above assessments concluded that aboriginal occupation was concentrated on the Williams River and the coastal areas. Travel Corridors (Song Trails) between the Williams River And the coastal sand dunes would have limited artefact discard to specific areas.

7.0 Predictive Model

The study area is part of the Kings Hill landscape and is connected to the Kings Hill Ridge Song Trail and the significant Aboriginal Landscape of the Kings Hill Aboriginal conservation lands. There is no doubt that the study area was occupied by Aboriginal people. Unfortunately, existing and past land use would have likely obliterated all except for the minimal likelihood of subsurface artefacts. It is unlikely that archaeological evidence exists within the study area; however, it is not possible to categorically state there will be no evidence.

Despite the various assessments not revealing any archaeological evidence and the extensive land disturbance, the study area's proximity to Kings Hill, leaves open the possibility of subsurface evidence.

The likelihood of potential artefacts existing within the subsurface must be assessed against the pattern of Aboriginal occupation, land use and artefact distribution modelling.

First, the studies adjacent to the site for the highway did not find artefacts.

Second, according to the studies previously discussed at section 3.11, no artefacts were observed within the vicinity. The Kings Hill LES assessment identified more extensive Aboriginal Occupation to the west of the current study area, closer to the Williams River, its associated wetlands and the Kings Hill ridgeline.

On the one hand the evidence and likely artefact distribution model suggest unlikely subsurface evidence and yet on the other the study area is in proximity to and connected with significant Aboriginal landscape.

Based on the above, the probability of subsurface evidence cannot be completely ruled out. However, it is important to consider to what extent does the disturbance of the site indicate that there is no realistic likelihood of Aboriginal cultural material remaining within the site?

On the balance of probabilities, the pattern of Aboriginal occupation and artefact distribution and the highly disturbed nature of the site would suggest that **subsurface evidence is extremely unlikely.**

8.0 Field Survey

A field survey was conducted on 24 May 2019. The survey was conducted by archaeologist Len Roberts, with representatives of the Worimi Local Aboriginal Land Council, Jamie Merrick and Brendan Lilley. Deb Swan, Roads and Maritime Aboriginal Cultural Heritage Officer, along with other RMS personnel, were also in attendance.

The study area was easily accessible, easily walked and conducive to a thorough survey. The weather condition was fine and sunny. There was poor visibility due to ground cover and land disturbance. The effectiveness of archaeological field survey is to a large degree related to the degree of ground surface visibility and obtrusiveness.

Visibility according to Schiffer (1978) can be defined as "the extent to which an observer can detect the presence of archaeological material at or below a given place." Areas with little or no vegetation, minimal soil deposition, or rapid rates of erosion, tend to be considered to have high visibility as archaeological evidence will not be covered by leaf litter, vegetation or soil deposits. Areas with soil build up, minimal erosion, pasture and vegetation cover will tend to have minimal visibility

Past Aboriginal activities are not well represented by surviving material evidence. This is partly because many activities did not leave material evidence eg. tools were reused, but it is also because very little cultural material survives. Wooden or bone tools in particular are easily destroyed by fire or rot overtime due to the generally acidic nature of the soil or attack by insects and fungi. An exception to this is shellfish, which are very durable. Easily recognised stone implements have been gathered overtime before it was illegal to do so. Other stone tools that are not easily recognisable are often discarded or buried by natural or anthropogenic processes.

The survival of material that is durable is also affected by recent land use. Cultivation and other anthropogenic activities have destroyed many archaeological sites. However, cultivation can also help expose sites that would otherwise be covered.

Despite the lack of landscape integrity, the survey was effective in that probable and actual objects could be identified.

The field assessment was conducted on foot on both sides of the Pacific Highway within the study area identified in Figure 2. The survey was diligently and professionally conducted by the RMS Aboriginal Heritage Officer from RMS.

No Aboriginal Objects were identified and whilst subsurface evidence is always a possibility it was deemed unlikely. It was determined that, from an Aboriginal Heritage perspective, the proposal could proceed with caution under standard management measures.

9.0 Impact Assessment

No Aboriginal Objects were identified during the field survey and whilst subsurface evidence is always a possibility it was deemed unlikely.

The proposed interchange will be located on disturbed land. The land has been disturbed for the highway upgrade, the Grahamstown Dam augmentation, utility undertakings (power lines, Telstra optic/communication cables), and rural infrastructure (access roads, farm dams, clearing and other agricultural activities).

However, the land has been treated as undisturbed land to ensure a robust due diligence assessment. This assessment considered the various reports that covered or was adjacent to the subject land.

This report clearly documents the extent of past disturbance using historic images, aerials, photos, etc.

Whilst it is a truism that the land has been disturbed, the assessment of the Aboriginal heritage value is also based on archaeological potential, visual assessment and Aboriginal community consultation.

The land, even if in an undisturbed state, was assessed as not having archaeological potential. Land disturbance is a mitigating factor to observing archaeological evidence but equally important as a mitigating factor is likely Aboriginal land use. An extensive field assessment was undertaken and concluded that the development would not impact aboriginal cultural heritage, including development of associated infrastructure.

From an Aboriginal heritage perspective, it must be noted that the recommendations from the previous assessments for the residential development are applicable to any development within the vicinity of the Kings Hill development footprint and that the extreme significance of the caves and Bora Ring attached to Kings Hill are once again highlighted.

The protection of the area of significance of Kings Hill must be ensured during and post development and action should be undertaken to enhance and revitalize that significance. It would be appropriate for the Kings Hill area of significance be made an Aboriginal Place or protected in perpetuity through other planning or legislative means.

10.0 Recommendations

No Aboriginal Objects were identified during field survey, and whilst subsurface evidence is always a possibility, it was deemed unlikely. It was determined that, from an Aboriginal Heritage perspective, the proposal could proceed with caution under the following standard management measures:

- Under the NPW Act, it is the responsibility of all persons to ensure that harm does not occur to an Aboriginal object. If human skeletal remains are found during the activity, work must stop immediately, the area secured to prevent unauthorised access and the NSW Police and OEH contacted. The NPW Act requires that, if a person finds an Aboriginal object on land and the object is not already recorded on AHIMS, they are legally bound under s.89A of the NPW Act to notify OEH as soon as possible of the object's location. This requirement applies to all people and to all situations
- A Cultural Education Program should be developed by the proponent for the induction of personnel involved in the construction activities in the project area. The proponent has a duty of care to ensure each worker is aware of individual responsibilities under the Act. The Local Aboriginal Land Council may be able to assist in delivery of such induction.

It is reasonably concluded that an AHIP application is not warranted as Aboriginal Objects are not likely to be harmed due to the disturbed nature of the site; and work can proceed with caution under the above measures.

11.0 Certification

This report was prepared in accordance with the brief given by AAP to assess the impact of the proposed development on Aboriginal heritage and was undertaken to demonstrate due diligence.

Whilst every care has been taken in compiling this report to determine the impact the proposal may have on Aboriginal Heritage and to demonstrate a due diligence process, neither MCAS nor the Local Aboriginal community can warrant or guarantee that due diligence has been met. It is the responsibility of the individual or proponent to ensure that they have undertaken due diligence.

Signed



Len Roberts
(BA; Grad Dip Comp; Dip Sp. Ed.)

(Archaeologist)

13/09/2019

12.0 References

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APPENDIX A



Transport
Roads & Maritime
Services

KINGS HILL

Aboriginal stakeholder cultural heritage survey report

STAGE 2 – ROADS AND MARITIME SERVICES PROCEDURE FOR
ABORIGINAL CULTURAL HERITAGE CONSULTATION AND
INVESTIGATION

MAY 2019

Aboriginal stakeholder cultural heritage survey report

1. Purpose of this assessment

This assessment forms part of the Stage 2 assessment of the Roads and Maritime Services (RMS) *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*. Its purpose is to determine whether any features of Aboriginal cultural significance occur within the study area for this project, and whether they would be affected by the project. This assessment will be used to assist the RMS in determining whether further assessment and consultation is required for this project.

2. Project details: (provide the following information)

- a) Project title: Kings Hill
- b) Location of study area:
Raymond Terrace
- c) Name of Aboriginal site officer(s) completing this assessment:
Jamie Merrick
Brendan Lilley
- d) Name of Aboriginal organisation(s) represented by this survey:
Worimi Local Aboriginal Land Council
- e) Name of site officer(s) who undertook site survey:
Jamie Merrick
Brendan Lilley
- f) Date of survey: 24 May 2017



(If additional space is required, please attach sheets)

3. Methodology:

- a) Approximately how much of the total project area was surveyed (eg 10%-100%) and why? (Eg Certain areas were heavily disturbed, properties were inaccessible, ground visibility was poor, difficult weather conditions, etc.)

80% Ground visibility was poor

- b) How was the survey undertaken? (Eg On foot, by car, individually, in groups, other? If other people were involved in the survey, please provide their names and name of their organisation, if relevant)

On foot and in groups

4. Results:



(If additional space is required, please attach sheets)

- a) Please provide a description of the area surveyed. Include a description of the total area covered, landforms, built areas, etc. Where appropriate, survey areas should be identified on a map/plan.

Heavily grassed, Hunter Water spillway, Trees



☐ stone tools or flakes ☐ hearths ☐ shell middens
☐ scarred trees ☐ shelters ☐ art sites
☐ bora circles ☐ significant spiritual or social areas
☐ totems ☐ significant cultural landscape features
☐ other – please state:

[illegible]

5

- c) Is it likely that any of the above features may be present in the study area, despite not being positively identified during the survey?
No. Yes. (If yes, where are they considered likely to occur?)

Yes Due to low visibility because of the ground cover we believe that there could be objects under the ground

- d) If known, please provide a description of the natural resources used by Aboriginal people that are, or would have been, available within the study area. Please describe the significance of these resources to past and present Aboriginal communities.

Hunter River, Bush Tucker ie; Flora and Fauna



- e) Please provide a description of past disturbances to the study area, if known, and how this may have affected Aboriginal cultural heritage features.

Not known



(If additional space is required, please attach sheets)

5. Conclusion:

Is the project likely to affect any significant known or potential Aboriginal cultural heritage features as identified by the survey?

- ☒ No.
- ☐ Yes. (If yes, please describe the features and how they would be affected).

[illegible]

This assessment has been completed by:

Name:

JAMIE MERRICK
Provide name

JMerrick
Provide signature

Position title:

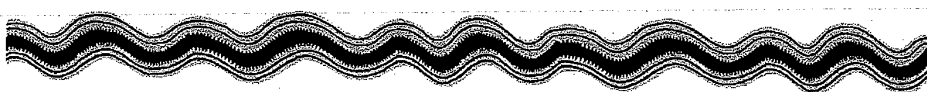
SNR SITE OFFICER
Provide title

Organisation name:

INOKIMI LOCAL ABORIGINAL LAND COUNCIL
Provide name of Aboriginal organisation

On the following date:

28/05/19
Insert date



APPENDIX B

Aboriginal Community consultation Log Kings Hill Grahamstown Dam –

PACHCI 2 P.0035567.03.003

DATE	TO	FROM	MEDIUM	BRIEF DESCRIPTION
15/04/2019	AHIMS	R Norton	Email	AHIMS Search + extensive search
15/06/2018	NNTR	D Swan	EMAIL	
07/09/2018 09/10/2018	NNTT	D Swan	Email	NND2018/004 - Worimi Local Aboriginal Land Council
07/09/2018				
07/09/2018	HLLS	D Swan		AGENCY SEARCH- Seeking RAPS for the Worimi area
07/09/2018	OEH	D Swan		AGENCY SEARCH Seeking RAPS for the Worimi area
15/04/2019	D Swan	Scott Pierce	Email	Rms Project Engineer Project details
29/04/2019	D Swan	G Nuss	email	Kings Hill Aboriginal Heritage
01/05/2019	Worimi LAC Jamie Merrick	D Swan	Email/ph	Seeking RAPS for the Worimi area are Lennie Anderson; 1ennie.anderson011@bigpond.com , Anthony Anderson; murroomainc1@gmail.com Dave Feeney; karuahindigenous@outlook.com
07/05/2019	Worimi LAC Jamie Merrick	D Swan	Email/ph	L Roberts PACHCI 2 Report sent to WLALC 1. WLALC comments: Pg10 does well not to completely discredit the likelihood of there being any sub surface materials present although, we do accept the reference of 'subsurface evidence is extremely unlikely'. 2. Section 5.0 dot Point 2 also provides for Cultural Education to be delivered to 'onsite workers'?
13/05/2019	L Anderson	D Swan	Email	RAP – 1ennie.anderson011@bigpond.com
20/05/2019	D Swan	L Roberts	Email/ph	Making contact, Myall Coast

				Archaeological Services
21/05/2019	Len Roberts	D SWAN	Email	Replied to my email date for 2 nd PACHCI 2 survey
21/05/2019	D Swan	L Roberts	Email/ph	X 2 agreeing on survey date, time & meeting place
22/05/2019	Worimi LAC Jamie Merrick	D Swan	email	Insurances & public liability
23/05/2019	L Roberts	D Swan	email	Sent maps of foot print of project Kings Hill
27/05/2019	L Roberts	D Swan	email	I queried AHIMS site card the removal of Artifact that was collected has no information on AHIMS Card
28/05/2019	Worimi LAC Jamie Merrick	D Swan	email	Artifact that was collected stated on AHIMS Card
28/05/2019	Worimi LAC Jamie Merrick	D Swan	Email	Kings Hill PACHCI 2 Report
28/05/2019	Worimi LAC Jamie Merrick	D Swan	email	Site officer contract signed,
18/06/2019	L Roberts	D Swan	EMAIL	Sent WLALC PACHCI 2 report to L Roberts
18/06/2019	D Swan	L Roberts	email	PACHCI 2 (2 nd) Report sent
18/06/2019	L Roberts	D Swan	email	Receipt of PACHCI 2 (2 nd) Report sent
12/07/2019	RAP's/D SWAN	K Hogan	email	Receipt of registration - Williamstown to Bobs Farm, Nelson Bay Road upgrade project
14/07/2019	L Roberts	D Swan	Email	Include drainage channel foot print map
15/07/2019	D Swan	L Roberts	Email	Responded to me email
26/07/2019	L Roberts	D Swan	email	Received amended report with maps included
06/08/2019	A Smith CEO WLALC & D Swan	K Hogan	email	environmental inspections traffic incidence accessing in & out of Murrook Cultural Centre WLALC Building
19/08/2019	D Swan	WLALC	Email	Tax Invoice
21/08/2019	D Swan	WLALC	Email	Tax Invoice no bank acc details AccountRight@apps.myob.com]
29/08/2019	D Swan	WLALC	Email	Tax Invoice ask for bank acc details

APPENDIX C

Arcadis Date: 08 May 2019

Level 16 580 George St
Sydney New South Wales 2000

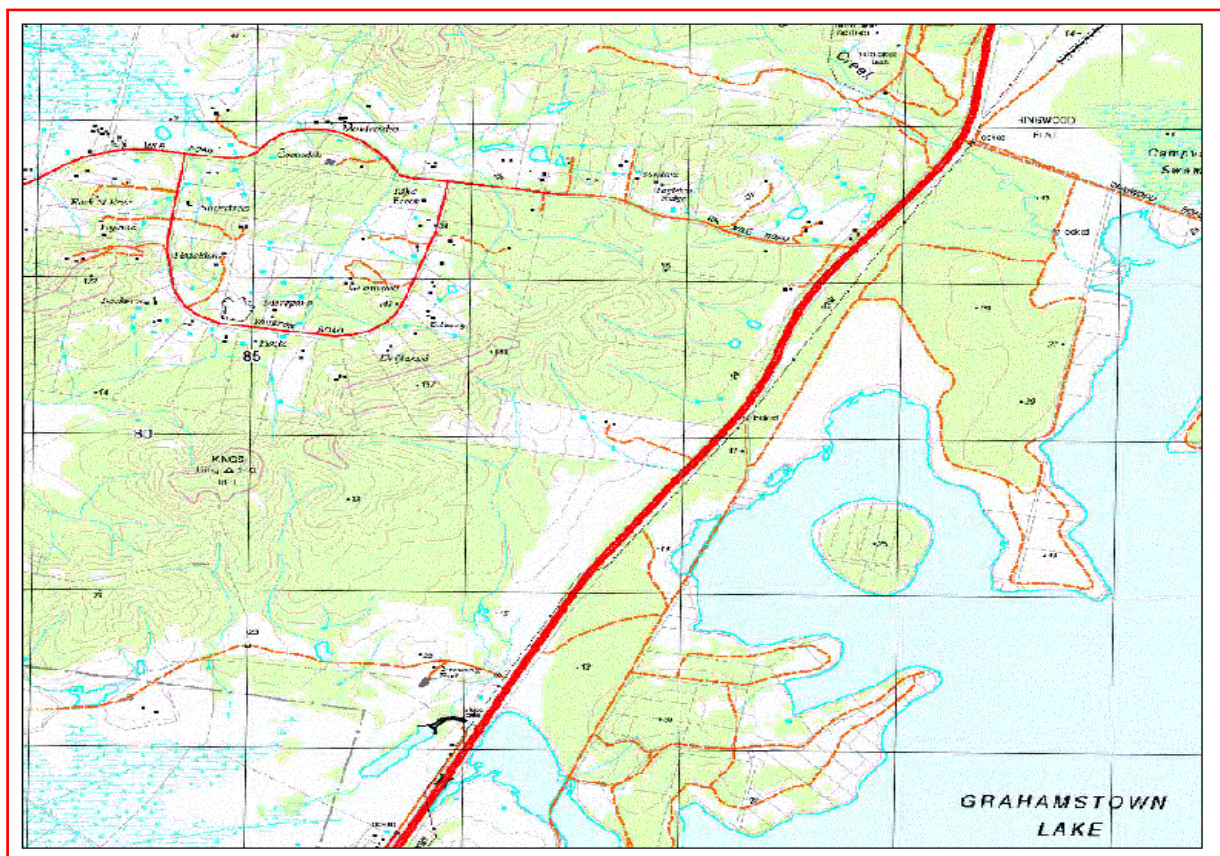
Attention: Rachel Perry

Email: rachel.perry@arcadis.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -32.7299, 151.7622 - Lat, Long To : -32.6938, 151.8193 with a Buffer of 50 meters. Additional Info : Inform due diligence assessment, conducted by Rachel Perry on 08 May 2019.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



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

2	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) (<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 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.

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Kings Hill

Client Service ID : 419274

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
38-4-0439	Isolated Artefact	AGD	56	387510	6380800	Open site	Valid	Artefact : -	Isolated Find	
	<u>Contact</u>	<u>Recorders</u>	Helen Brayshaw,Ms.Laila Haglund					<u>Permits</u>		
38-4-0049	Nelson's Plains;Kings Hill;	AGD	56	384594	6379283	Closed site	Valid	Artefact : -	Shelter with Deposit	
	<u>Contact</u>	<u>Recorders</u>	ASRSYS					<u>Permits</u>		

Report generated by AHIMS Web Service on 08/05/2019 for Rachel Perry for the following area at Lat, Long From : -32.7299, 151.7622 - Lat, Long To : -32.6938, 151.8193 with a Buffer of 50 meters. Additional Info : Inform due diligence assessment.. Number of Aboriginal sites and Aboriginal objects found is 2

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

(S)(I) 9232 SI/56-2 NEWCASTLE
KINGS HILL Nelson's Plains

Locality

38-4-49
SHELTER OCC.

Military map/other reference Newcastle 1:250.000.SI/56-2.Paterson 1:63.360.789553
c. 4788.9552.

Pastoral or other property, park Owner of property Jack Windeyer, Raymond Terrace.

Description of site South-west flank of Kings Hill - series of rock shelters - massive rock outcrop above. "Almost certain to have been ceremonial site".
Largest shelter has been much used by Europeans but has shallow deposit full of stone and charcoal.
Caves very inaccessible



38-4-0049

Length

Width

Depth

Soil and vegetation on and adjacent to site

Nearest water supply

Previous excavation or digging

Erosion, cultivation or other works

Assemblages

6180

Site collection deposited

Associated with

rock engravings
stone arrangements
campsite

rock paintings
axe grooves
other relics

carved trees
quarry

Photo record by

Where deposited

Scale chart by

Where deposited

Excavated by

History

Recorded D.R.Moore Report on Field Trip to Lower Hunter 11-13th September 1968.

38-4-49

Aboriginal meaning and name

Published reference

Remarks

NPWS / Copy A5964

6181

[✓] New recording

[] Additional Info



National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444

Standard Site Recording Form Revised 5/88



38-4-0439

1:250,000 map sheet: NEWCASTLE NPWS Code 13.8

AMG Grid reference 387510 mE 6380800 mN

Full reference - please include leading digits

Scale of map used for grid reference ☒ 25K ☐ 50K ☐ 100K ☐ 250K

Please use largest scale available

1:25K, 50K, 100K map name: KARUVAH

HEAD OFFICE USE ONLY:

NPWS Site no: 38-4-439Site types: Isolated artefact

Accessioned by: _____ Date: _____

Data entered by: GE Date: _____Owner/Manager RTA

Address: _____

Site name: Isolated ArtefactLocality/property name: Six Mile Rd Raymond TerraceNPWS District: HunterRegion: CENTRAL

Reason for investigation

REF - Pacific Highway Upgrade

Portion no: 48

Parish: THORNTON

Photos taken? Y

How many attached? see report

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff)

(Draw diagram on separate sheet)

Artefact is about 300 metres SW of Six Mile Rd within the Pacific Highway road reserve, about 2km fr western boundary fence - c 8 km N of Raymond Terrace

Other sites in locality? YSite Types include: Open sitesAre sites in NPWS Register? YHave artefacts been removed from site? N

When?

By whom?

Deposited where?

Is site important to local Aborigines?

Give contact(s) name(s) + address(es)

Derek Ridgeway
Warimi Local Aboriginal Land Council

Contacted for this recording? Yes

(Attach additional information separately) If not, why not?

Verbal/written reference sources (including full title of accompanying report)

Pacific Highway Upgrade Raymond Terrace - Karuah REF
Archaeological Survey for Aboriginal Sites H Brayshaw August 1997

NPWS Report Catalogue #

Checklist

Surface visibility

Damage/disturbance/

Threat to site

Condition of site

Artefact is in disturbed location

Recommendations for management & protection (attach separate sheet if necessary)

Consent to Destroy

Site recorded by: H. Brayshaw + L. Haglund

Address/institution: 51 Thompson St 1 Common St
Dunmore 2047 Balmuir 2041

Date: 23/7/97

SITE POSITION & ENVIRONMENT

OFFICE USE ONLY: NPWS site no:

1. Land form a. beach/hill slope/ridge top, etc:

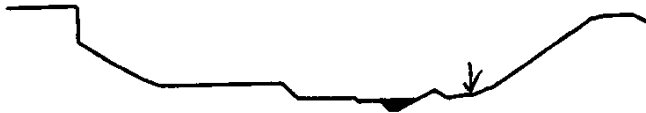
b. site aspect: *N/A*

c. slope:

d. mark on diagram provided or on your own sketch the position of the site:

e. Describe briefly:

See below



f. Local rock type: *Carboniferous Crawford formation conglomerates etc*

g. Land use/effect: *road reserve*

2. Distance from drinking water: *300m*

Source: *unnamed creek*

3. Resource Zone associated with site (estuarine, riverine, forest etc): *Forest, swamps*

4. Vegetation: *Forest regrowth*

5. Edible plants noted:

6. Faunal resources (include shellfish):

wood duck nest found nearby.

7. Other exploitable resources (river pebbles, ochre, etc):

Site type:

Isolated Artefact

DESCRIPTION OF SITE & CONTENTS.

Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.

Location: The artefact was found in the Pacific Highway road reserve, 20 metres from the western boundary fence, about 300 metres south of the Six Mile Road junction, at chainage 34800m [north of Newcastle]. The area where the artefact was found was disturbed and there appeared to be no potential for any intact archaeological deposit in the area. Ground visibility in the area was approximately 25%. About 80-100 metres to the north and south were exposures with visibility of up to 80%, and no artefacts were found there.

Description: A grey and ochre coloured silcrete core on a flake, 45x38x15mm. Of the dorsal surface 20% is cortex and the remainder negative flake scars [approx 6]. On the ventral surface there is R/U all around from the edge - eight scars.

CHECKLIST TO HELP:
length, width, depth,
height of site, shelter,
deposit, structure,
element eg. tree scar,
grooves in rock.

DEPOSIT: colour,
texture, estimated
depth, stratigraphy,
contents-shell, bone,
stone, charcoal, density
& distribution of these,
stone types, artefact
types.

ART area of surface
decorated, motifs,
colours, wet, dry
pigment, technique of
engraving, no. of
figures, sizes,
patination.

BURIALS: number &
condition of bone,
position, age, sex,
associated artefacts.

TREES: number, alive,
dead, likely age, scar
shape, position, size,
patterns, axe marks,
regrowth

QUARRIES: rock type,
debris, recognisable
artefacts, percentage
quarried.

OTHER SITES EG.
structures (fish traps,
stone arrangements,
bora rings, mia mias),
mythological sites, rock
holes, engraved groove
channels, contact sites
(missions massacres
cemeteries) as
appropriate

Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale.

Attach annotated photos (stereo where useful) showing scale, particularly for art sites.