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Our Ref: 4210-2018

Nicholas Turner
Waterbrook Bayview Pty Ltd
Level 8, 43 Bridge Street
Hurstville NSW 2220

3rd April 2019

Dear Mr Turner,

RE: Aboriginal Heritage Due Diligence Assessment - 1825 Pittwater Road and 52 Cabbage Tree Road Bayview, NSW

Kayandel provides this document in support of a new Site Compatibility Certificate application.

Kayandel prepared an Aboriginal Due Diligence Assessment in December 2017, that considered the proposal at that time. We have assessed the proposed changes to this proposal, and our opinion is that those changes have no material impact upon the results of the previous assessment, and that no further assessment is warranted at this point.

We take this opportunity to remind you of the legal requirements of the *National Parks and Wildlife Act 1974* (as amended), whereby it is illegal to damage, deface or destroy an Aboriginal relic without first obtaining the written consent of the Director General of National Parks & Wildlife Service. If an Aboriginal object is identified at any stage in the future that all work should cease in the immediate vicinity (including an adequate buffer [notionally 50m]). You are required to notify the Office of Environment and Heritage and should retain the services of an appropriately qualified and experienced Archaeologist.

This Due Diligence Assessment (December 2018) and a copy of this letter, must be kept by the proponent so that it can be presented, if needed, as a defence from prosecution under Section 86(2) of the *National Parks and Wildlife Act 1974*;

All relevant staff and contractors should be made aware of their statutory obligations for heritage under the *National Parks and Wildlife Act 1974*, which may be implemented as a heritage induction.

Should the design and/or extent of the proposed development be altered, further archaeological assessment may be required. This may include the need to complete an Aboriginal Cultural Heritage Assessment (ACHA), the full Aboriginal Cultural Heritage Consultation Requirements (ACHCR), sub-surface investigations under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a) and apply for an Aboriginal Heritage Impact Permit (AHIP) from the Office of Environment and Heritage (OEH), NSW.

If you have any questions about any aspect of this letter, please contact me on (02) 4627 8622.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Lance Syme'.

Lance Syme
Principal
B Arts (Arch/Paleo), Grad Dip (Heritage Conservation)
Full Member International Council on Monuments and Sites (M. ICOMOS)
Expert Member International Committee on Archaeological Heritage Management

**Proposed over 55's Development
Part of 52 Cabbage Tree Road (part Lot 1 DP662920),
Bayview**

Aboriginal Cultural Heritage Due Diligence Assessment

Prepared on behalf of Waterbrook Bayview Pty Ltd

DECEMBER 2017

Lance Syme

Mapping by Natalie Stiles

KAYANDEL
ARCHAEOLOGICAL SERVICES



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Document Status

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1.0	Internal Edits	N. STILES	L SYME	6/12/2017	L SYME	6/12/2017
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Disclaimer: This heritage assessment and the management recommendations contained herein, will be independently reviewed by the Heritage Division of the NSW Office of Environment & Heritage (OEH).

OEH will make consideration of the findings of the consultant's report and the recommendations in relation to the management of cultural heritage. Formal approval for all actions outlined should be sought from the relevant authority prior to the completion of any works. At no time should automatic approval of the management recommendations stated herein be assumed.

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1 INTRODUCTION

Kayandel Archaeological Services (KAS) was commissioned by Waterbrook Bayview Pty Ltd (the Proponent) to prepare an Aboriginal Cultural Heritage Due Diligence Assessment in relation to the potential for Aboriginal objects to be present within areas which could be affected by the proposed development within the Subject Area.

This report outlines the results of an Aboriginal heritage due diligence assessment which meets the requirements of the Office of Environment and Heritage (OEH) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales 2010* (herein referred to as the Due Diligence Code of Practice), and includes recommendations regarding Aboriginal heritage constraints for the proposed works.

1.1 Location of the Subject Area

The Subject Area is located within The Northern Beaches Council Local Government Area (LGA) and the Metropolitan Local Aboriginal Land Council (MLALC). The Subject Area is located within the Parish of Narrabeen, County of Cumberland.

The Subject Area incorporates part of 52 Cabbage Tree Road (part Lot 1 DP662920), Bayview. The Subject Area covers approximately 6.37ha, as shown in Figure 1.

1.2 Proposed Works

The proposed development works consists of (see Figure 2):

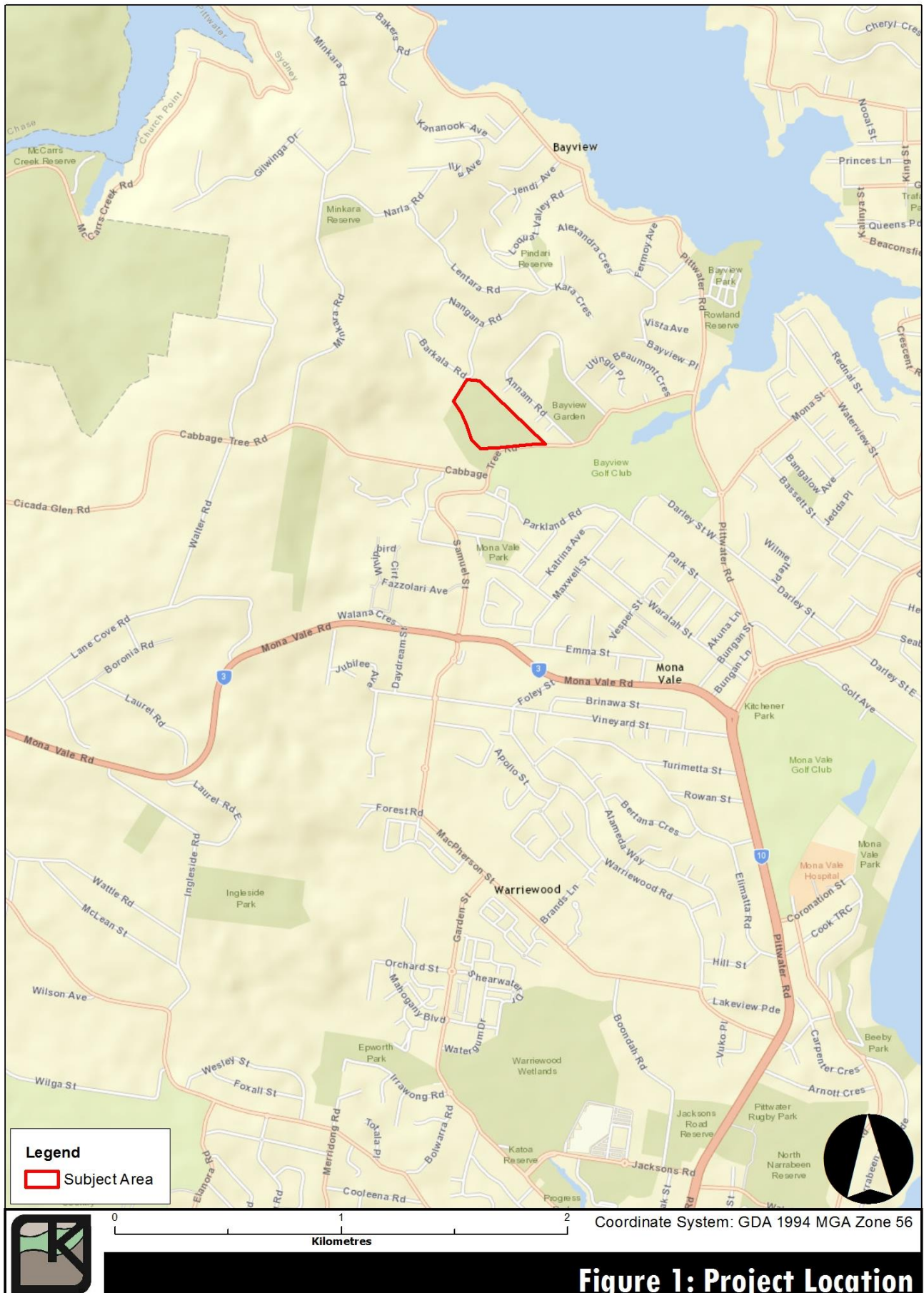
- Clearing of vegetation;
- Bulk earthworks;
- Demolition of existing structures and associated infrastructure;
- Laying of associated infrastructure for residential purposes;
- Construction of road and associated infrastructure;
- Subdivision for residential lots; and,
- Construction of residential dwellings.

1.3 Personnel

This study was carried out by Kayandel Archaeological Services (KAS). The field survey was completed by Lance Syme. Background research was undertaken by Natalie Stiles. Mapping was completed by Lance Syme and Natalie Stiles. Natalie Stiles drafted the report, which was reviewed by Lance Syme.

Person	Qualifications	Experience	Tasks
Lance Syme	BArts (Arch/Palaeo), Grad. Dip. (Heritage Cons.), M.ICOMOS	19 years	Project supervisor, field survey, mapping, report review
Natalie Stiles	BArts (Arch/Palaeo), Grad. Cert. Arts (Arch)	6 years	Background research, report drafting, mapping

Table 1: KAS Personnel involved in the Archaeological Assessment





2 LEGISLATIVE CONTEXT

The following sections provide information on Federal and State legislation which provides for the protection and management of historic cultural heritage.

The following overview of the legal framework is provided solely for information purposes for the client, it should not be interpreted as legal advice. KAS will not be liable for any actions taken by any person, body or group as a result of this general overview, and recommends that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the summary below.

The *National Parks & Wildlife Act 1974* provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW) and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community) under Section 86 of the Act. Aboriginal objects are afforded automatic statutory protection in NSW whereby it is an offence to:

Damage, deface or destroy Aboriginal sites without the prior consent of the Director-General of the National Parks and Wildlife Service (now referred to as the Office of Environment and Heritage (OEH)).

The Act defines an Aboriginal 'object' as:

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

The Due Diligence Code of Practice 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 works. 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. If it is found that Aboriginal sites were to exist within the Subject Area, an AHIP would be required if the proposed impacts cannot be avoided. If it is found to be unlikely that Aboriginal sites were to exist within the Subject Area and the due diligence assessment has been conducted in accordance with the Due Diligence Code of Practice, then the proposed works could proceed without an AHIP.

The *Native Title Act 1994* was introduced to work in conjunction with the *Commonwealth Native Title Act 1993*. Native Title claims, registers and Indigenous Land Use Agreements are administered under the Act. A search of the Native Title register did not identify any active Native Title Claims over the Subject Area.

3 LANDSCAPE CONTEXT

Bayview is located in the eastern portion of the Sydney Basin Bioregion. The larger scale geology of the Sydney Basin Bioregion is characterised by marine deposition events from the Carboniferous to the early Permian. Numerous coal deposits accumulated before large river systems covered the region in quartz sandstone, known as the Hawkesbury sandstone. The Hawkesbury sandstone, which forms the bedrock for all of the Sydney Basin, dates to the mid Triassic. This bedrock of sandstone is then capped by a thin layer of shale (Branagan and Packham, 2000; OEH, 2012).

A review of the Soil Landscapes of Central and Eastern NSW indicates that the Subject Area lies within the Erina and Deep Creek landscapes (OEH, 2017). A description of each of the soil landscapes within the Subject Area is provided below.

The Erina soil is an erosional soil landscape, which is characterised by undulating to rolling rises and low hills on fine-grained sandstones and claystones of the Narrabeen Group with slopes usually <20%. The landscape comprises of moderately deep to deep (100->200 cm) Yellow Podzolic Soils on sandstone crests and slopes; moderately deep (100-150 cm) Red Podzolic Soils on shale crests and steeper slopes; deep (>200 cm) Yellow Podzolic Soils on shale lower slopes; some deep (>200 cm) Yellow Earths on colluvial footslopes. Soils are susceptible to very high erosion, impermeable plastic low wet-strength subsoil, localised run-on, seasonal waterlogging of footslopes (OEH, 2017).

The Deep Creek soil landscape is characterised by level to gently undulating alluvial floodplain draining the Hawkesbury Sandstone with slopes usually <3%. The landscape comprises of deep (>200 cm) Podzols on well-drained terraces, Siliceous Sands on current floodplain and Humus Podzols in low lying areas. The soil is susceptible to flooding, extreme soil erosion hazard, sedimentation hazard, localised very low fertility and permanently high watertables (OEH, 2017).

The presence and survivability of archaeological objects in the Subject Area is closely tied to topography and soil landscape. While archaeological objects can be found anywhere, open artefact scatters and isolated finds in open landscape contexts are unlikely to have been conserved *in-situ* due to erosion and soil movement, and ground disturbance associated with the construction of the existing golf course. Artefactual deposits are likely to survive almost exclusively in the closed environmental context of rock shelters, where material may accumulate and remain relatively undisturbed.

3.1 Historical Land-Use Disturbance

The Subject Area has previously been utilised as a golf course, and has been subject to extensive vegetation clearance to make way for the golf course, cart paths, sand bunkers, associated structures and infrastructure, and landscaping.

As a result of previous functions, portions of the Subject Area have undergone significant amounts of disturbance (see Figure 3).



4 ARCHAEOLOGICAL CONTEXT

4.1 Ethnohistory

Aboriginal settlement history of Australia stretches back thousands of years, with information from Aboriginal community consultation, oral histories, the archaeological record and historical documents contributing to an understanding of the past. Colonial exploration of the Sydney area and the letters and diaries of British officers provide early observations on the way of life, customs, activities and material culture of Aboriginal people in the area at that time. Within three years of arrival, the British had explored a large part of the Sydney region, including visits to Broken Bay, Botany Bay, Rose Hill (Parramatta), Prospect Hill and overland to the Nepean, Hawkesbury and Georges Rivers – essentially across most of the Cumberland Plain as well as extensive travels up and down the coast.

Early after his arrival at Port Jackson in 1788, Governor Arthur Phillip explored Brisbane Water and Cowan Creek to the north and west of the study area, meeting in a friendly manner with local Aboriginal people (NSW National Parks and Wildlife Service 1996). Later that year, Phillip and his party travelled overland to Pittwater and back, walking along Aboriginal tracks and exploring the southern shores of Pittwater and around McCarrs Creek, near the study area. During these explorations they documented their meetings with Aboriginal people in various areas, describing them as separate 'tribes' associated with particular areas of land. Rather than separate 'tribes', it is more likely these groups comprised small local clans of extended family groups, forming larger land-using bands linked through marriage and communal participation in subsistence gathering activities (Attenbrow 2010, Brook and Kohen 1991:2).

None of the British observations from the late 18th and early 19th Century make reference to any name for the different dialects or wider language groups that they noted (Attenbrow 2010). The various names offered by the early chroniclers are not always clear if they are referring to a language, a small group within a particular area, or a wider group of people to which smaller groups belonged. Early references to the people living between Port Jackson and Broken Bay include Garigal/Caregal as the name of "a man, or a tribe, who resided to the northward"; "the man's name was Caregal [and] he lived at, or near Broken-Bay" (Phillip, in Hunter 1793[1968]:465 (in Attenbrow 2010)), Gamaragal or Cammeragal/Cam-mer-ray-gal on the north side of Port Jackson, extending north towards Broken Bay, and Guringai/Kuringai along the coast. The Guringai/Kuringai group was described by John Fraser in 1892 as stretching between Port Macquarie in the north to Bulli in the south, and as far inland as the Great Dividing Range. He described the Kuringai tribe as including several sub-tribes who shared closely related languages similar to that spoken around Port Macquarie, which Fraser called Awabakal, from the Aboriginal name of Awaba for Lake Macquarie. The name Kuringai was from the word *kuri*, the Awaba word for 'men'.

The linguist Arthur Capell's work in the 1960s further developed the idea that the Kuringgai/Guringai language group ought to be considered separately from the by then established Sydney region groupings of Darug, Dharawal, Darginung, Gundungurra and Awaba. Capell described the Guringai area beginning to the north of Port Jackson, between the Lane Cove River and the coast, and extending as far north as Tuggerah Lake where it merged into Awaba (Attenbrow 2010). Early colonial records, however, do not indicate that a different language was spoken to the north of Port Jackson. Attenbrow proposes that the language spoken on the north shore was the same as, or very similar to, the coastal dialect of Darug spoken on the Sydney Peninsula (2002:34). While early recordings of Aboriginal names are not always clear in terms of whether they referred to individuals,

family groups, larger clan groups, languages or areas, in general, language and dialect boundaries are often blurred lines, regardless of the accuracy of historical and colonial observations. Even where dialect was clearly different, Aboriginal people could and did communicate. Captain Tench observed when two Aboriginal men from the coast conversed with an Aboriginal man further inland "they conversed on a par and understood each other perfectly, yet they spoke different dialects of the same language; many of the most common and necessary words used in life bearing no similitude and others being slightly different" (Tench 1793:122). It is likely that several languages were spoken in each larger area and the 'boundaries' of these shifted as groups of people moved around the landscape. The rapid pace of change to Aboriginal communities and their way of life after the arrival of the British also contributes to the difficulty of drawing precise lines. In the northern coastal region of Sydney, as well as Guringai (or Attenbrow's 'coastal Darug'), other common languages would likely have been Darkinjung and to the west, the 'inland' Darug dialect.

As well as language differences, the British also noted a difference between the subsistence activities and dialect of Aboriginal people along the coast compared with those further inland on the Cumberland Plain. An obvious subsistence focus was the marine and estuarine resources of the nearby shoreline and areas along the lower reaches of creeks were "much frequented by the coast natives; for the wooded sides of the ridges ... abound with various animals, and the waters below afford a plentiful supply of oysters and other shell-fish" (Govett 1836). Fishing took place both from rock platforms near the shore and from bark canoes and was undertaken by both men and women using spears, lines with shell or bone hooks and nets, with chewed shellfish or discarded fish for bait.

While early European observations of fish species used by Aboriginal people vary widely, archaeological excavation of a midden site at Angophora Reserve on the nearby Barrenjoey Peninsula indicates that people in the local area were catching and eating upwards of 17 fish species including snapper, bream, wrasse, blue groper, catfish and flathead, as well as various shellfish including rock oyster, whelk, hairy mussel and a number of cockle species. Visitors to Broken Bay also noted that 'craw-fish', lobsters and crayfish were eaten by the local inhabitants. Marine mammals also occasionally formed part of the diet, with historical evidence indicating that beached whales were eaten and large groups of people gathered to share the resources offered by the carcass (Attenbrow 2010).

4.2 AHIMS Database Search

The locations and details of Aboriginal sites are considered culturally sensitive information. It is recommended that this information, including the AHIMS data and GIS imagery, is removed from this report if it is to enter the public domain.

KAS carried out a search of the AHIMS database on the 20th November 2017 using the Client Service ID 313578.

The search area was a 6km by 6km square centred upon the Subject Area, with an additional 1km buffer (refer to Figure 4). The results of the AHIMS search are presented in Table 2 and Figure 4. A total of 95 Aboriginal sites had been registered within the search area (refer to Table 2 and Figure 4).

The AHIMS search indicates that 29 of the 95 sites within the search area are Rock Engravings (see Table 2). The results are indicative of the number of archaeological assessments that have occurred within the local region, as well as the nature of the landscape, containing numerous rock platforms close to water sources, suitable for rock engravings.

Site Type	Frequency	%
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Rock Engraving	29	30.53%
Midden with Artefacts	22	23.16%
Shelter with Midden	6	6.32%
Shelter with Midden and Artefacts	6	6.32%
Midden	3	3.16%
Shelter with Art and PAD	3	3.16%
Shelter with PAD	3	3.16%
Axe Grinding Groove	2	2.11%
Axe Grinding Groove and Rock Engraving	2	2.11%
Not an Aboriginal Site	2	2.11%
Potential Archaeological Deposit	2	2.11%
Shelter with Art	2	2.11%
Shelter with Art and Midden	2	2.11%
Shelter with Midden, Art and Artefacts	2	2.11%
Shelter with Midden, Art and PAD	2	2.11%
Shelter with Midden, Artefacts and Axe Grinding Groove	2	2.11%
Burial	1	1.05%
Rock Engraving and Stone Arrangement	1	1.05%
Shelter with Artefacts	1	1.05%
Shelter with Midden, Artefacts and Burial	1	1.05%
Water Hole/Well and Axe Grinding Groove	1	1.05%
Total	95	100.00%

Table 2: Site Types from AHIMS Search (Client Search ID 313578)

It should be noted that the distribution of sites in the AHIMS database is a reflection of where site surveys have been conducted, where exposure and visibility conditions have enabled the detection of sites, and where sites have survived modern land disturbance. Although, Aboriginal occupation covered the whole of the landscape, the availability of fresh water and resources was a significant factor in repeated and long-term occupation of specific areas within the landscape. Certain site types, such as culturally modified trees, are particularly vulnerable to destruction through historical occupation, while others, such as stone artefacts, are more resilient.

4.3 Previous Archaeological Investigations

Kelleher Nightingale Consulting (KNC) (2016)

Kelleher Nightingale Consulting (KNC) (2016) completed an Aboriginal heritage assessment for the Ingleside Precinct in north-east Sydney, NSW, located approximately 2km west of the Subject Area. The assessment was based on the established Precinct Assessment Method for Aboriginal Cultural Heritage in the Sydney Growth Centres, as well as requirements of the Office of Environment and Heritage. Background research and targeted archaeological field survey identified 25 Aboriginal archaeological sites recorded in the Precinct. The majority of these were rock engraving sites, with a smaller number of grinding groove sites and a rock shelter with art and archaeological deposit.

The twenty-five (25) Aboriginal archaeological sites recorded in the Precinct comprised of (KNC, 2016):

- ✿ 20 previously recorded (AHIMS registered) Aboriginal sites; and,
- ✿ 5 newly identified sites recorded during site inspection

Identified sites predominantly consist of rock engravings, with smaller numbers of grinding groove sites and a rock shelter with art and archaeological deposit. Recorded sites include (KNC, 2016):

- ✧ 20 rock engraving sites (80% of recorded sites);
- ✧ 2 engraving and grinding groove sites (8% of recorded sites);
- ✧ 2 grinding groove sites, one of which had an associated water hole (8% of recorded sites); and,
- ✧ 1 shelter with art and deposit (4% of recorded sites).

The Aboriginal heritage assessment and community consultation also identified that there is a likelihood of further Aboriginal heritage sites, of similar types to those identified through the assessment, being situated within the Precinct. Archaeological sensitivity of the Precinct is strongly linked to geology. Aboriginal rock engravings, grinding grooves and rock shelter sites can occur where there are suitable sandstone outcrops and overhangs (KNC, 2016).

4.4 Previous Predictive Models

Previous archaeological investigations, ethno-historical and historical background and an analysis of the landscape context of an area all provide data that assists in formulating predictions of expected site types and distribution within Ingleside Precinct. Many of the discussions regarding the distribution of archaeological material in the region around Ingleside focus on a combination of suitable geology and low disturbance. The underlying Hawkesbury sandstone geology of the area is conducive to the formation of rock shelters and this site type is well represented among previously recorded sites in the wider region. Shelters containing art, archaeological deposit or a mixture of both are numerous to the north and east of the study area. Deposit containing midden material becomes more frequent towards the coast, as do open context middens, reflecting the exploitation of marine resources in these areas.

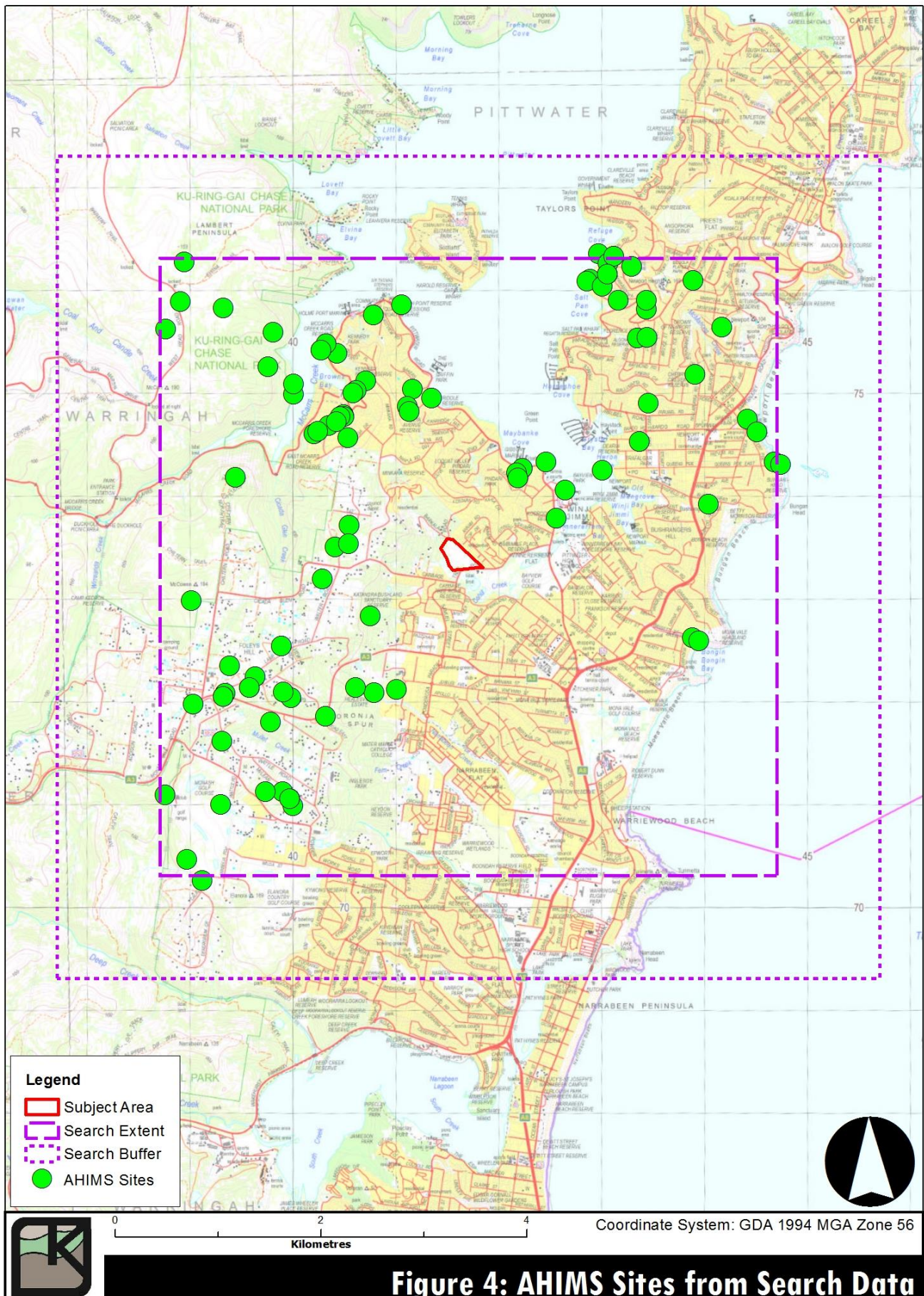
Artefacts identified in archaeological deposits in the local area are predominantly quartz, presumably sourced locally from occurrences in the Hawkesbury sandstone. Quartzite, chert and mudstone artefacts have also been identified. Preservation of archaeological deposit in open contexts (i.e. artefact scatters and isolated finds) is relatively rare in the region. This is partially due to environmental conditions unfavourable to their survival such as steep slopes and erosional soils, but may also relate to the generally easy availability of rock shelters in areas of Hawkesbury sandstone. Environmental contexts that would have been more favourable to preservation of open context sites such as flat ridge tops and plateaux with more stable residual soil landscapes were however the focus for initial European settlement of the region and have a longer history of European disturbance.

The Hawkesbury sandstone also outcrops as benches and slabs which can provide flat or gently sloping surfaces suitable for engraving sites and grinding grooves. Grinding grooves occur on suitable sandstone outcrops that also offer a source of water, whether within or adjacent to creek lines or due to seepage and collection on the rock surface after periods of rain. Engraving sites are the most commonly identified site type in the wider region and occur widely across the ridge and spurs above tributaries draining to Narrabeen Creek and McCarrs Creek. Previous investigations of the area have noted issues of exposure and visibility, with suitable slabs partially buried or heavily vegetated and the possibility exists that further engravings are located in these areas.

4.5 Aboriginal Heritage Predictions for the Subject Area

The following predictions for Aboriginal sites to be present within the Subject Area are based on the landforms present:

- ✦ Archaeological sites are likely to consist of rock engravings on exposed level, relatively smooth sandstone platforms, in both ridge crest and slope contexts.
- ✦ Rock shelter sites are likely to occur where suitable overhangs have formed in the local sandstone bedrock. Overhangs are more likely to occur on the steeper slopes of a ridgeline, but may also form beneath outcrops in flat to gently sloping crest contexts.
- ✦ Shelters may contain engraved or painted art executed in charcoal or ochre, and may contain archaeological deposit where disturbance to the shelter floor has been limited and some depth of sediment exists.
- ✦ Open artefact scatters and/or isolated finds are unlikely. Archaeological deposit is more likely to have been preserved in closed context rock shelter sites.
- ✦ Midden sites are unlikely given the distance from the coast or other significant bodies of water, but may exist in proximity to larger creeklines on the borders of the Precinct.
- ✦ Grinding grooves may exist on sandstone outcroppings that occur in proximity to creeklines or collect water after rain.
- ✦ Clearance of original vegetation and increasing urbanisation along the ridgeline lessens the likelihood of identifying culturally modified trees, but old growth trees may be present in the more heavily vegetated parts of the study area and have the potential to display scars of Aboriginal origin.
- ✦ Archaeological sites are more likely to be identified in areas that have been subject to less intensive disturbance. Conversely, identification of open context sites may be aided by some measure of ground disturbance where this has increased the visibility and exposure of archaeological material.
- ✦ It can be expected that locally derived quartz will be the most commonly encountered artefact raw material (if present).
- ✦ Areas of Potential Archaeological Deposits (PADs) may be present in locations with minimal previous land disturbance and in close proximity to a watercourse.



5 RESULTS OF THE ARCHAEOLOGICAL SURVEY

A pedestrian survey was conducted on the 22nd November 2017 by Lance Syme, Principal Archaeologist. The main aims of the field assessment were to identify Aboriginal objects, identify areas with potential to retain intact subsurface archaeological deposits, and to assess the overall intactness of the Subject Area.

The field assessment included the completion of visual inspections throughout all readily accessible portions of the Subject Area. Detailed inspections were carried out at the location of ground surface exposures, which may contain stone artefacts. All mature trees were also inspected for evidence of cultural modification.

The Subject Area is located on a modified landscape, which has resulted from the construction of the Bayview Golf Course. The survey identified that a moderate to high level of earthworks have occurred within the Subject Area, associated with the construction of the golf course, sand bunkers, cart paths, associated infrastructure and landscaping (refer to Plate 1 to Plate 5).

Within the Subject Area, the only areas of ground exposure were limited to areas around the trees. The areas of exposures were typically were approximately 30cm in width and had a visibility 5-10%.

No trees were identified within the Subject Area that exhibited diagnostic attributes of culturally modified trees as defined by Long (2008).

No surface artefacts were recorded



Plate 1: General view looking northwest



Plate 2: General view looking northwest



Plate 3: General view looking northwest



Plate 4: General view looking north



Plate 5: General view looking southwest

6 PRELIMINARY ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

This due diligence assessment provides a preliminary assessment of archaeological potential, that is to determine likelihood of potential archaeological deposits (PAD) being present within the Subject Area. A more comprehensive and detailed investigation of the extent and nature of archaeological potential would be completed during an archaeological survey report (ASR), where required, under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010 (now referred to as the Office of Environment and Heritage)).

A review of AHIMS noted that no Aboriginal objects were recorded within the Subject Area, and the field survey, as part of the current assessment, did not identify any previously unrecorded Aboriginal objects being present within the Subject Area; based on this, and the previous ground disturbance (i.e. large amounts of land clearance, earthworks associated with golf course, and associated structures and infrastructure) have resulted in large-scale landform modification. Therefore, no further archaeological investigation is recommended for the Subject Area.

7 DUE DILIGENCE ASSESSMENT

Kayandel Archaeological Services was asked to conduct an Aboriginal archaeological assessment of the Subject Area in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, published by the Department of Environment, Climate Change and Water (now the Office of Environment and Heritage) in 2010 (DECCW, 2010). This Due Diligence Code sets out the matters which are to be addressed when assessing whether or not an activity may harm Aboriginal Objects.

The Due Diligence Code, with reference to the DECCW process (refer to Appendix I), outlines in regard to the proposed project within the Subject Area, the following:

1. It is not an activity under Part 3 under s.75B of the EP&A Act;
2. The proposed activity is not exempt under the *National Parks and Wildlife Act, 1974* or *National Parks and Wildlife Regulation, 2009*;
3. The proposed activity will not involve harm that is trivial or negligible;
4. The activity is not within an Aboriginal place and no previous investigations meeting the requirements of this code have identified Aboriginal objects;
5. The proposed activity is not a low impact one for which there is a defense in the *National Parks and Wildlife Regulation, 2009*; and,
6. The proponent is not eligible to use an industry specific code of practice.

Consequently the Generic Due Diligence Code is to be followed. The decision process determining whether an Aboriginal Heritage Impact Permit (AHIP) is required is as follows (Appendix I):

1. The activity will disturb the ground surface, but will not disturb any culturally modified trees;
2.
 - a. the Subject Area does not have any previously confirmed site records or other associated landscape feature information on AHIMS;
 - b. there are no sites identified within the Subject Area;
 - c. there are landscape features that are likely to indicate the presence of Aboriginal objects;
3. The carrying out of the proposed activity cannot be avoided at the relevant landscape features identified over the Subject Area; and,
4. The desktop assessment and visual inspections completed that the likelihood of Aboriginal objects being present is low.

As such, it is determined that an AHIP is not required for the project as currently proposed, however caution must be exercised.

8 RECOMMENDATIONS

The following recommendations regarding Aboriginal heritage are based on consideration of:

- ✿ The legal requirements of the *National Parks and Wildlife Act 1974* (as amended), whereby it is illegal to damage, deface or destroy an Aboriginal relic without first obtaining the written consent of the Director General of National Parks & Wildlife Service;
- ✿ The legal requirements of the *Heritage Act 1977*, whereby it is illegal to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit;
- ✿ The results of the background research, archaeological survey and assessment; and,
- ✿ The likely impacts of the proposed works.

It was found that:

- ✿ No Aboriginal objects have been identified in the Subject Area.
- ✿ The Subject Area has low potential to retain intact archaeological deposits due to disturbance and modification associated with land clearance, earthmoving, construction of dams, septic tanks, and houses and ancillary structures.

It is therefore recommended that:

1. Works as currently specified can proceed with caution, subject the recommendations included below;
2. This due diligence assessment must be kept by the proponent so that it can be presented, if needed, as a defence from prosecution under Section 86(2) of the *National Parks and Wildlife Act 1974*;
3. All relevant staff and contractors should be made aware of their statutory obligations for heritage under the *National Parks and Wildlife Act 1974*, which may be implemented as a heritage induction;
4. Should the design and/or extent of the proposed development be altered, further archaeological assessment may be required. This may include the need to complete an Aboriginal Cultural Heritage Assessment (ACHA), the full Aboriginal Cultural Heritage Consultation Requirements (ACHCR), sub surface investigations under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a) and apply for an Aboriginal Heritage Impact Permit (AHIP) from the Office of Environment and Heritage (OEH), NSW;
5. If unrecorded Aboriginal object or objects are identified in the Project Area during works, then all works in the immediate area must cease and the area should be cordoned off. OEH must be notified by ringing the Enviroline 131 555 so that the site can be adequately assessed and managed;
6. In the unlikely event that skeletal remains are identified, work must cease immediately in the vicinity of the remains and the area must be cordoned off. The proponent must contact the local NSW Police who will make an initial assessment as to whether the remains are part of a crime scene or possible Aboriginal remains. If the remains are thought to be Aboriginal, OEH must be contacted by ringing the Enviroline 131 555. An OEH officer will determine if the remains are Aboriginal or not; and a management plan must be developed in consultation with the relevant Aboriginal stakeholders before works recommence; and,

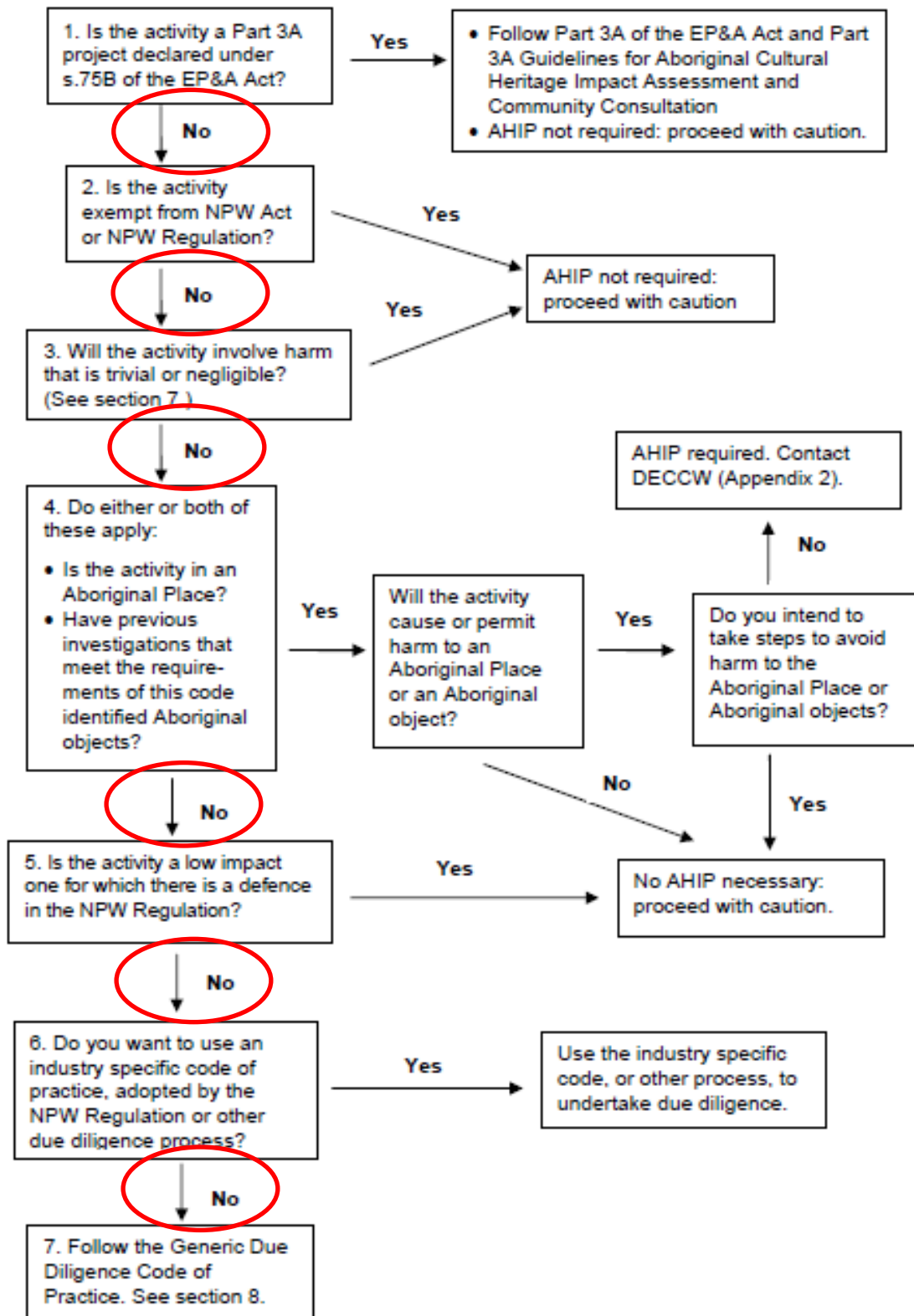
7. If, during the course of development works, suspected historic cultural heritage material is uncovered, work should cease in that area immediately. The Heritage Branch, Office of Environment & Heritage (Enviroline 131 555) should be notified and works only recommence when an approved management strategy has been developed.

9 REFERENCES

- Attenbrow, V. 2010. *Sydney's Aboriginal Past: Investigating The Archaeological and Historical Records*. University of New South Wales Press Ltd. Sydney.
- Brook, J. and Kohen, J.L., 1991. *The Parramatta Native Institution and the Black Town: A History*. New South Wales University Press, Kensington
- Department of Environment, Climate Change & Water]. 2010. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*.
- Govett, W.R., 1836. *Sketches of New South Wales*. *Saturday Magazine*. John William Parker, London.
- Kelleher Nightingale Consulting Pty Ltd, 2016, *Ingleside Precinct: Aboriginal Heritage Assessment*, Prepared for Department of Planning and Environment, Pittwater Council and UrbanGrowth NSW
- NSW National Parks and Wildlife Service, 1996. *Ku-ring-gai Chase National Park*. NSW National Parks and Wildlife Service, Hurstville.
- Office of Environment and Heritage, 2017, *Soil Landscapes of Central and Eastern NSW*, NSW Office of Environment and Heritage, Sydney
- Tench, W., 1793. *Complete Account of the Settlement at Port Jackson*. G. Nicol and J. Sewell, London.
- Therin Archaeological Consulting, 2007, *Aboriginal Heritage Assessment of 84a McCarrs Creek Road, Church Point*. Report prepared for Sylvia Dove

APPENDIX I. DUE DILIGENCE DECISION PROCESS FROM DECCW 2010 PAGES 1 & 10

1 Do you need to use this due diligence code?



8 The generic due diligence process

