

Appendix P

Aboriginal Cultural Heritage Assessment



Port Botany Quayline Equalisation Project

Technical Report: Aboriginal Cultural Heritage
Assessment

Port Botany Quayline Equalisation Project

Technical Report: Aboriginal Cultural Heritage Assessment Report

Client: Port Botany Operations Pty Ltd as Trustee for Port Botany Unit Trust

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Executive Summary

AECOM Australia Pty Ltd (AECOM) was commissioned by the Port Botany Operations Pty Ltd as Trustee for Port Botany Unit Trust (referred herein as NSW Ports) to complete an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation Project (the Project), located within Port Botany, Sydney, in the Bayside and Randwick Local Government Areas (LGAs), New South Wales.

This ACHAR forms part of the Environmental Impact Statement (EIS) being prepared for the Project and has been compiled with reference to Heritage NSW's *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a), *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b) and *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011).

Overview

NSW Ports is seeking approval to undertake works to ensure equitable operational quayline length between the three container stevedore companies operating at Port Botany (the Project). The Project would involve two principal components:

- Construction of an extended quayline (BD12) on the southern side of Brotherson Dock, including dredging of the Brotherson Dock channel and berths to provide material for reclamation of land. This would provide:
 - Extension of the southern side of the Brotherson Dock quayline by around 314 metres to provide a combined quayline length on the southern side of Brotherson Dock of around 1,250 metres to accommodate up to three longer container vessels, commensurate with the quayline length available to stevedore operators in other parts of the port
 - An additional 5.3 hectares of wharf area (wharf hardstand)
- Consequential changes to the bulk liquids berths at the port, including demolition of the existing Bulk Liquids Berth 1 (BLB1), construction and operation of a new Bulk Liquids Berth (BLB3) in a more southerly location, and associated changes to pipework and bulk liquids handling infrastructure within the port. The types and volumes of bulk liquids would remain unchanged.

The assessment presented in this technical report, as part of the EIS, aims to address Secretary's Environmental Assessment Requirements (SEARs), in support of the application for the Project.

Existing environment

The Project Area is situated within Port Botany, a deep-water seaport in Botany Bay, adjacent to Botany Road in the suburb of Matraville. Irregularly shaped, the Project Area is approximately 119 ha in size and covers part of the existing Brotherson Dock area and extending into the adjacent waters of Botany Bay. The dock area is situated on fully reclaimed land formed during the original construction of Port Botany. The extensive land reclamation efforts during construction of the port, combined with historical land use activities, have significantly altered the natural topography of the Project Area and the broader Botany Bay landscape

Assessment findings

A search of the Aboriginal Heritage Information Management System (AHIMS) database was undertaken on 19 August 2024 for a 10 x 10 km area centred on the Project Area. A total of 76 Aboriginal archaeological sites were identified within the search area comprising 22 middens, 20 rock engravings, 10 burials, eight rock shelters, six open artefact sites (i.e., artefact scatters and isolated artefacts), five areas of Potential Archaeological Deposit (PAD), two grinding grooves, two art sites and one quarry. Consideration of the locations of previously recorded sites indicates that none are located within the Project Area, with the closest being a rock shelter with midden - "Bumborah Point" (45-6-1152) - located 520 metres to the east of the Project Area but within the port facilities.

Visual inspections of the Project Area were completed on 25 March 2025 by NSW Ports representatives and La Perouse Local Aboriginal Land Council (LPLALC) representatives (Chris Ingrey and Paul Ryan) and on 2 April 2025 by AECOM Principal Heritage Specialist Geordie Oakes with LPLALC site officer Steven Ella. No evidence of past Aboriginal occupation was observed during the visual inspection, nor were any specific cultural values communicated to AECOM by community members. It was noted by LPLALC representatives there was limited potential for archaeological remains to be present within the Project Area due to development in the area, primarily dredging associated with construction of the port. These activities, it was noted, had resulted in cultural fishing grounds being lost. Further, it was noted during the visual inspection that the Project Area consists of a highly modified/ built-up landscape resulting from reclamation. Consistent with existing desktop data sources, observations made during the visual inspection suggest that the land and waters of this area are of low Aboriginal archaeological sensitivity.

Mitigation and management measures

It is recommended that management measures for Aboriginal cultural heritage be included in the Project's Construction Environmental Management Plan(s) (CEMP(s)). Management measures should include:

- Protocols for ongoing consultation with RAPs
- Aboriginal heritage awareness via the incorporation of an Aboriginal heritage component into the Project's standard environmental site induction
- An Unexpected Aboriginal Heritage Finds Procedure covering all Aboriginal objects, including human skeletal remains (i.e., Aboriginal burials).

Glossary of terms and abbreviations

Term	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plans
AHIMS	Aboriginal heritage information management system
ALR Act	<i>Aboriginal Land Rights Act 1983 (NSW)</i>
BLB	Bulk liquids berth
CEMP	Construction Environmental Management Plan
CSL	Current sea level
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
facilitated development	The subsequent development facilitated by the Project, being construction and operation of infrastructure for the purposes of container operations, involving: • Installation of up to three new quay cranes • Installation of quay rail sidings • Crane power and control systems. Further details of the facilitated development are provided in Section 3.4 (Facilitated development) of the EIS.
ILUA	Indigenous Land Use Agreement
impact	Influence or effect exerted by a development or other activity on the natural, built and community environment
LALC	Local Aboriginal Land Council
LGA	Local government area
LPLALC	La Perouse Local Aboriginal Land Council
LSCC	Landside construction compound
mitigation	Actions or measures to avoid or reduce the impacts of a development
NP&W Act	<i>National Parks and Wildlife Act 1974 (NSW)</i>
PAD	Potential archaeological deposit

Term	Description
Project	The development for which approval is sought under Division 5.2, Part 5 of the EP&A Act, involving: • Construction of an extended quayline (BD12) on the southern side of Brotherson Dock, including dredging of the Brotherson Dock channel and berths to provide material for reclamation of land • Consequential changes to the bulk liquids berths at the port, including demolition of the existing Bulk Liquids Berth 1 (BLB1), construction and operation of a new Bulk Liquids Berth (BLB3) in a more southerly location, and associated changes to pipework and bulk liquids handling infrastructure within the port. Further details of the Project are provided in Chapter 3 (Project description) of the EIS.
RAP	Registered Aboriginal Party
RNE	Register of the National Estate
SEARs	Secretary's environmental assessment requirements issued under the EP&A Act
WSCC	Waterside construction compound

1.0 Introduction and background

1.1 Project context and overview

The Port Botany Operations Pty Ltd as Trustee for Port Botany Unit Trust (referred herein as NSW Ports) is seeking approval to undertake works to provide equitable operational quayline length between the three container stevedore companies operating at Port Botany (the Project). The Project would involve two principal components (refer to Figure 1-1):

- Construction of an extended quayline (BD12) on the southern side of Brotherson Dock, including dredging of the Brotherson Dock channel and berths to provide material for reclamation of land. This would provide:
 - Extension of the southern side of the Brotherson Dock quayline by around 314 metres to provide a combined quayline length on the southern side of Brotherson Dock of around 1,250 metres to accommodate up to three longer container vessels, commensurate with the quayline length available to stevedore operators in other parts of the port
 - An additional 5.3 hectares of wharf area (wharf hardstand)
- Consequential changes to the bulk liquids berths at the port, including demolition of the existing Bulk Liquids Berth 1 (BLB1), construction and operation of a new Bulk Liquids Berth (BLB3) in a more southerly location, and associated changes to pipework and bulk liquids handling infrastructure within the port. The types and volumes of bulk liquids would remain unchanged.

The extended quayline and associated wharf area would be constructed and made available for further development in future by a stevedore. NSW Ports does not seek approval for this further development, including construction and operation of infrastructure for the purposes of container operations.

More detailed descriptions of construction and operation of the Project are provided in Chapter 3 (Project description) of the EIS.

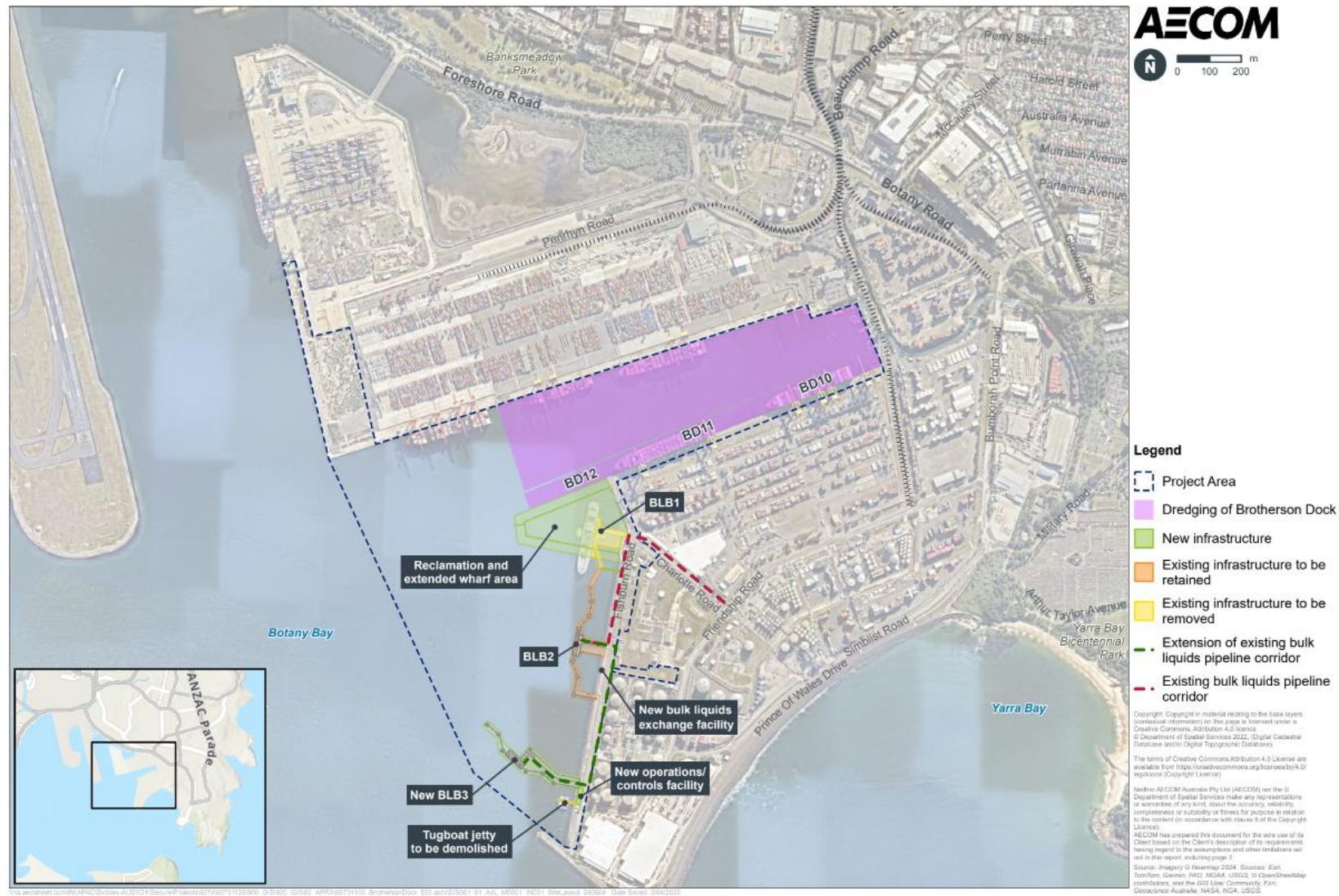


Figure 1-1 Project overview

1.2 The Project

Construction and operation of the Project is summarised in the following sections and described in detail in Chapter 3 (Project description) of the EIS.

1.2.1 Proponent

The proponent for the Project is NSW Ports, Gate B103, Penrhyn Road, Port Botany NSW, 2032, ABN: 25 674 171 329.

1.2.2 Construction of the Project

A high level summary of the key construction activities for the Project are provided in Table 1-1. An indicative construction program for each construction phase is shown in Figure 1-3.

Table 1-1 Key construction activities

Construction phase	Key construction activities
Enabling works and establishment of construction compounds	Site establishment and enabling works would be required to establish four landside construction compounds (LSCCs) and one waterside construction compounds (WSCC) (refer to Figure 1-2). Temporary environmental and safety controls, such as erosion and sediment controls, would be implemented.
Construction of the new BLB3	Construction of BLB3 would involve: • Construction of a suspended deck structure, requiring approximately 119 piles • Installation of BLB3 infrastructure and mooring dolphins, new pipeline rack and exchange facility, and electrical services • Construction of a new operations/ control facility and new emergency egress at the existing BLB2.
Decommissioning and removal of BLB1 and tugboat jetty	Decommissioning and demolition activities would involve: • Demolition and removal of the tugboat jetty south of BLB3 • Cessation of operations associated with BLB1, and flushing and pigging (pipe clearing) of pipelines associated with BLB1 • Demolition and removal of BLB1 infrastructure and associated pipelines.
Construction of the extended quayline (BD12) and wharf area	Construction of the extended quayline (BD12) on the southern side of Brotherson Dock would involve two main activities: • Construction of a bund wall, dredging and reclamation works: - Construction of a bund wall including a core, geofabric textile layer, and outer rock armour layer - Progressive dredging of Brotherson Dock, filling behind the bund wall - Compaction of dredged materials within the reclamation area. • Piling and wharf deck construction, requiring approximately 380 piles with anticipated lengths of up to 70 metres.
Site demobilisation	Construction sites and compounds would be removed. Disturbance areas would be reinstated to pre-construction conditions. Disturbance areas used for construction would be reinstated to conditions comparable to those existing prior to the commencement of construction.



Construction phases	Indicative timing																							
	2027				2028				2029				2030				2031				2032			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Enabling works																								
Establishment of construction compounds and laydown area works																								
Construction of the new BLB3																								
Decommissioning and removal of BLB1 and tugboat jetty																								
Construction of bund wall, dredging and reclamation																								
Piling and wharf deck construction																								
Site demobilisation																								

Figure 1-3 Indicative construction phases and timing

1.2.3 Operation of the Project

The key operational components of the Project are shown in Figure 1-1 and summarised in Table 1-2. The extended Brotherson Dock and BLB3 would operate 24 hours a day 7 days a week, consistent with existing operations at Port Botany managed by the stevedores.

Table 1-2 Project operation

Key operational component	Description
Extended quayline (BD12) and wharf area	The extended quayline would allow for the southern side of Brotherson Dock to accommodate longer ships, consistent with the longer quaylines available to other stevedores operating within the port. The key operational components would include: • An extended BD12 wharf area within the reclaimed area along and behind the extended quayline • A hardstand area around 5.3 hectares in area, composed of the reclaimed area (4 hectares) and suspended deck (1.3 hectares) • Forty-eight fenders along the BD12 quayline to absorb the impact of ships and provide secure points for vessels to tie up their mooring lines • Supporting services, including drainage and security.
BLB3 to replace BLB1 including associated pipeline infrastructure	The new BLB3 would operate similarly to the current BLBs, but would be located further south. BLB3 would be connected to the existing pipeline network or directly into the existing bulk liquids and gas tenancies that use this berth. The key operational components of the BLB3 would include: • A central working platform, including (but not limited to) three marine loading arms to transfer bulk liquids from ships to shore facilities, and provision for up to five additional arms • Access bridges connecting shore to the central working platform to the vessels, providing vehicle and pedestrian access, as well as a pipeline corridor • Additional emergency egress from BLB2 to shore • Pipeline infrastructure including: - Extension of the existing bulk liquids pipeline corridor along Fishburn Road from the BLB3 pipe manifold to existing Vopak and Elgas bulk liquids storage locations - An additional pipeline along Fishburn Road to the existing BLB2 exchange facility, replacing the existing BLB1 bitumen pipelines - An additional bulk liquids exchange facility located on Fishburn Road • Utilities including power, lighting, security, water, sewer, communications.

1.3 Purpose of this report

This report is one of a number of technical assessments that forms part of the EIS. The purpose of this technical report is to assess the potential impacts to Aboriginal cultural heritage, in response to the Secretary Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) (refer to Section 1.3.1), and to engage with agencies (refer to Section 1.3.2).

1.3.1 Assessment requirements

The SEARs issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) relating to Aboriginal cultural heritage, and where these requirements are addressed in this technical report, are outlined in Table 1-3.

Table 1-3 Secretary's environmental assessment requirements – Heritage – Aboriginal

Issue and desired performance outcome	Requirement	Section where addressed in report
Heritage – Aboriginal The design, construction and operation of the project facilitates, to the greatest extent feasible, the long-term protection, conservation and management of the heritage significance of items of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent feasible, on the heritage significance of Aboriginal objects and places.	Provide an Aboriginal Heritage Assessment as outlined in Section 6.2.10 of the Scoping Report.	This Aboriginal Cultural Heritage Assessment Report.

1.3.2 Agency consultation

Agency consultation has been carried out in accordance with *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (the Consultation Requirements) (DECCW, 2010a), and as detailed in Section 3.1.1.

1.4 Report structure

This Aboriginal Cultural Heritage Assessment Report (ACHAR) is structured as follows:

- Section 1.0, has provided background information on the Project and assessment undertaken
- Section 2.0 outlines the statutory framework within which this assessment has been undertaken
- Section 2.2 outlines the methodology adopted for this assessment
- Section 3.0 details the Aboriginal community consultation program undertaken for this assessment
- Section 4.0 describes the existing environment of the Project Area and its associated archaeological implications
- Section 5.0 describes the archaeological context of the Project Area on a regional and local scale. Predictions regarding the nature of the Aboriginal archaeological record within the Project Area are also provided
- Section 6.0 summarises relevant ethnohistoric information for the Project Area
- Section 7.0 describes the visual inspection component of the assessment

- Section 8.0 assess the Aboriginal heritage significance of land within the Project Area
- Section 9.0 provides an assessment of the potential impacts of the Project on identified Aboriginal heritage values
- Section 10.0 details an appropriate management strategy for potential Aboriginal heritage values within the Project Area
- Section 11.0 lists the references cited in-text.

2.0 Assessment approach

2.1 Legislation, policy, guidelines and standards

2.1.1 Commonwealth legislation

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) (ATSIHP Act) provides for the preservation and protection of places, areas, and objects of particular significance to Indigenous Australians. The stated purpose of the ATSIHP Act is the “*preservation and protection from injury or desecration of areas and objects in Australia and in Australian waters, being areas and objects that are of particular significance to Aboriginals in accordance with Aboriginal tradition*” (Part I, Section 4).

Under the ATSIHP Act, ‘Aboriginal tradition’ is defined as “*the body of traditions, observances, customs and beliefs of Aboriginals generally or of a particular community or group of Aboriginals, and includes any such traditions, observances, customs or beliefs relating to particular persons, areas, objects or relationships*” (Part I, Section 3). A ‘significant Aboriginal area’ is an area of land or water in Australia that is of “*particular significance to Aboriginals in accordance with Aboriginal tradition*” (Part I, Section 3). A ‘significant Aboriginal object’, meanwhile, refers to an object (including Aboriginal remains) of like significance.

For the purposes of the ATSIHP Act, an area or object is considered to have been injured or desecrated if:

- a. *In the case of an area:*
 - i. *It is used or treated in a manner inconsistent with Aboriginal tradition;*
 - ii. *The use or significance of the area in accordance with Aboriginal tradition is adversely affected; and*
 - iii. *Passage through, or over, or entry upon, the area by any person occurs in a manner inconsistent with Aboriginal tradition*
- b. *In the case of an object:*
 - i. *It is used or treated in a manner inconsistent with Aboriginal tradition.*

The ATSIHP Act can prevail over State and Territory laws in situations where a State or Territory has approved an activity, but the Commonwealth Minister prevents the activity from occurring by making a declaration to protect an area or object. However, the Minister can only make a decision after receiving a legally valid application under the ATSIHP Act and, in the case of long term protection, after considering a report on the matter. Before making a declaration to protect an area or object in a State or Territory, the Commonwealth Minister must consult the appropriate minister of that State or Territory (Part 2, Section 13).

No declarations relevant to the Project Area have been made under the ATSIHP Act.

Native Title Act 1993

The *Native Title Act 1993* (Cth) (Native Title Act) provides for the recognition and protection of native title for Aboriginal peoples and Torres Strait Islanders. The Native Title Act recognises native title for land over which native title has not been extinguished and where persons able to establish native title are able to prove continuous use, occupation or other classes of behaviour and actions consistent with a traditional cultural possession of those lands. It also makes provision for Indigenous Land Use Agreements (ILUA) to be formed as well as a framework for notification of native title stakeholders for certain future acts on land where native title has not been extinguished.

A search of the National Native Title Tribunal's online tool, Native Title Vision, was undertaken on 17 January 2025 to identify registered Native Title Claims (both registered and determined), as well as ILUAs, for the Project Area. The search returned no relevant native title determinations or ILUAs for the Project Area.

Environment Protection and Biodiversity Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) took effect on 16 July 2000. Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of national environmental significance may only proceed with approval of the Commonwealth Minister for the Environment. An action is defined as a project, development, undertaking, activity, series of activities, or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact
- It is undertaken outside Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The EPBC Act defines 'environment' as incorporating both natural and cultural environments and therefore includes Aboriginal heritage. Under the EPBC Act, protected heritage items are listed on the National Heritage List (items of significance to the nation) or the Commonwealth Heritage List (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE), closed in 2007 and no longer a statutory list. Statutory references to the RNE in the EPBC Act were removed on 19 February 2012. However, the RNE remains an archive of over 13,000 heritage places throughout Australia.

A search of the Australian Heritage Database, which includes places listed on the World Heritage List, National Heritage List, Commonwealth Heritage List, RNE and List of Overseas Places of Historic Significance to Australia, was undertaken in January 2025, with no relevant Aboriginal heritage listings identified for the Project Area.

2.1.2 State Legislation

Aboriginal Land Rights Act 1983

The *Aboriginal Land Rights Act 1983* (NSW) (ALR Act) was established to return land in NSW to Aboriginal peoples through lodging claims for certain Crown lands. The Act, administered by the NSW Department of Aboriginal Affairs, is a compensatory regime which recognises that land is of spiritual, social, cultural and economic importance to Aboriginal people.

The ALR Act establishes the NSW Aboriginal Land Council and a network of over 120 autonomous Local Aboriginal Land Councils (LALCs) and requires these bodies to:

- a. *Take action to protect the culture and heritage of Aboriginal persons in the LALC's area, subject to any other law*
- b. *To promote awareness in the community of the culture and heritage of Aboriginal persons in the LALC's area.*

LALCs constituted under the ALR Act can make claims. The Registrar of the ALR Act has responsibility for maintaining the Register of Aboriginal Land Claims under section 166 of the Act. All land claims made since the ALR Act came into force in 1983 have been recorded in the Register.

Under Section 36(1) of the ALR Act 'claimable Crown lands' are defined as those that:

- a. *Are able to be lawfully sold or leased, or are reserved or dedicated for any purpose, under the Crown Lands Consolidation Act 1913 or the Western Lands Act 1901,*
- b. *Are not lawfully used or occupied,*
- b1. *Do not comprise lands which, in the opinion of the Crown Lands Minister, are needed or are likely to be needed as residential lands,*
- c. *Are not needed, nor likely to be needed, for an essential public service,*
- d. *Do not comprise lands that are the subject of an application for a determination of native title (other than a non-claimant application that is an unopposed application) that has been registered in accordance with the Commonwealth Native Title Act, and*

- e. *Do not comprise lands that are the subject of an approved determination of native title (within the meaning of the Commonwealth Native Title Act) (other than an approved determination that no native title exists in the lands).*

Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act), administered by the Department of Planning, Housing and Infrastructure (DPHI) requires that consideration be given to environmental impacts as part of the land use planning and development processes in NSW. In NSW, environmental impacts are interpreted as including impacts to Aboriginal and non-Aboriginal cultural heritage.

NSW Ports is seeking approval for the Project under Division 5.2 (State Significant Infrastructure (SSI)) of the EP&A Act. Pursuant to section 5.23 of the EP&A Act, Aboriginal Heritage Impact Permits (AHIPs) are not required for approved SSI projects. Impacts to Aboriginal heritage values associated with such projects are typically managed under Aboriginal Cultural Heritage Management Plans (ACHMPs), which are statutorily binding once approved.

National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NSW) (NP&W Act), administered by Heritage NSW, is the primary legislation for the protection of Aboriginal cultural heritage in NSW. The NP&W Act provides for the proper care, preservation and protection of 'Aboriginal objects' and 'Aboriginal places', defined under the Act as follows:

- An *Aboriginal object* is any deposit, object, or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction. This includes Aboriginal remains
- An *Aboriginal place* is a place declared so by the Minister administering the NP&W Act because the place is or was of special significance to Aboriginal culture. It may or may not contain Aboriginal objects.

Part 6 of the NP&W Act provides specific protection for Aboriginal objects and places by making it an offence to harm them and includes a 'strict liability offence' for such harm. A 'strict liability offence' does not require someone to know that it is an Aboriginal object or place they are harming to be prosecuted. Defences against the 'strict liability offence' under the NP&W Act include the carrying out of certain 'low impact activities', prescribed in clause 58 of the *National Parks and Wildlife Amendment Regulation 2019*, and the demonstration of due diligence.

As indicated above, pursuant to section 5.23 of the EP&A Act, AHIPs are not required for approved SSI projects. Impacts to Aboriginal heritage values associated with such projects are typically managed under ACHMPs, which are statutorily binding once approved.

Section 89A of the NP&W Act requires notification of the location of Aboriginal sites within a reasonable time, with penalties for non-notification. Section 89A is binding in all instances, including SSI projects.

2.1.3 Local Government

Randwick (2012) and Bayside (2021) Local Environmental Plans

Clause 5.10 of both the *Randwick Local Environmental Plan 2012* and *Bayside Local Environmental Plans 2021* provide specific provisions for the protection of heritage items, heritage conservation areas, archaeological sites, Aboriginal objects and Aboriginal places of heritage significance within these LGAs, with the objectives of the clause as follows:

- a. *To conserve the environmental heritage of Randwick/Bayside*
- b. *To conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings, and views*
- c. *To conserve archaeological sites*
- d. *To conserve Aboriginal objects and Aboriginal places of heritage significance.*

Schedule 5 of each of the LEPs provide a list of heritage items, heritage conservation areas, and archaeological sites within the respective LGAs. Reference to these lists indicate there are no Aboriginal objects or places of Aboriginal heritage significance listed in these schedules that are located within the Project Area.

2.2 Methodology

2.2.1 Project Area

The Project Area is situated within Port Botany, a deep-water seaport in Botany Bay, adjacent to Botany Road in the suburb of Matraville. Irregularly shaped, the Project Area is approximately 119 ha in size and covers part of the existing Brotherson Dock area and extending into the adjacent waters of Botany Bay.

In terms of its broader setting, Port Botany is located across both the Bayside and Randwick local government areas (LGAs), around one kilometre south-east of Sydney Kingsford Smith Airport. The Project Area is located in a specialised land use zone (SP1 – Special Activities), permitting certain development relating to the operation of the port, known as the Port Botany Lease Area. The regional context is shown in Figure 2-2.

The Geographical Name Register of NSW indicates that the Project Area is located within the Parish of Botany in the County of Cumberland.

2.2.2 Impact assessment method

This assessment has been undertaken in accordance with the SEARs issued for the Project (refer to Section 1.3.1) and with reference to the following guidelines:

- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a)
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b)
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (ICOMOS, 2013)
- *Ask First: A Guide to Respecting Indigenous Heritage Places and Values* (Australian Heritage Commission, 2002)
- *Engage Early: Guidance for proponents on best practice Indigenous Engagement for environmental assessments under the Environmental Protection and Biodiversity Conservation Act 1997 (EPBC Act)* (Australian Government Department of the Environment, 2016)
- *Practice Note: Engaging with Aboriginal Communities. Social Impact Assessment Practice Notes* (NSW Government, 2022)
- *Connecting with Country: Good practice guidance on how to respond to Country in the planning, design and delivery of built environment projects in NSW* (NSW Government Architect's Office, 2023).

The key steps taken in preparing this assessment have included:

- Conducting a search of the Aboriginal Heritage Information Management System (AHIMS) administered by Heritage NSW
- Reviewing the landscape context of the Project Area, with specific consideration of its implications for past Aboriginal land use and the survival of associated archaeological materials
- Reviewing relevant archaeological and ethnohistoric information for the Project Area and surrounds
- Preparing a predictive model for the Aboriginal archaeological record of the Project Area
- Undertaking a visual inspection of the Project Area

- Identifying Aboriginal sites and areas of archaeological sensitivity present within the Project Area
- Identifying, notifying, and registering Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/ or places in the Project Area
- Provide Registered Aboriginal Parties (RAPs) with information about the scope of the Project and Aboriginal heritage assessment process
- Facilitating a process whereby RAPs can:
 - Contribute culturally appropriate information to the assessment methodology
 - Provide information that enables the cultural significance of Aboriginal objects and/ or places within the Project Area to be determined
 - Have input into the development of cultural heritage management options
- Preparing and finalising an ACHAR with input from RAPs that identifies the Aboriginal cultural values of the Project Area and provides appropriate management recommendations to manage impacts to these values.

2.2.3 Cumulative impact assessment

Cumulative impacts have the potential to occur when benefits or impacts from a development overlap or interact with those of other developments, potentially resulting in a larger overall impact (positive or negative) on the environment or local communities. Cumulative impacts may occur when developments are constructed or operated concurrently or consecutively, within the same area.

The extent to which another development or activity could interact with the construction and/ or operation of the Project would depend on its location, scale, and/ or timing of construction or operation. A screening assessment was undertaken to identify projects that may contribute to potential cumulative impacts. Refer to Chapter 18 (Cumulative and facilitated impacts) of the EIS for details of the full cumulative impact assessment methodology adopted for the Project. Based on this screening, the following four developments were identified to have potential for cumulative impacts with the Project:

- CP Group and KLF Group Waste Management Facility, Botany
- Modification of Orica Chlor-Alkali Plant, Botany Industrial Park
- Orica Southlands Warehouse Estate Stage 3
- Stephen Road Multi-level Warehouse, Banksmeadow.

The location of these projects is shown on Figure 2-1.

An assessment of potential cumulative impacts between these screened developments and the Project relevant to Aboriginal cultural heritage during construction and operation is presented in Section 9.2.

2.2.4 Facilitated impacts

Although the Project would involve construction of an extended quayline (BD12) and wharf area, it would not include the subsequent construction or operation of infrastructure for the purposes of container operations. Any future development of such infrastructure would be separately progressed by the stevedore.

Although installation and operation of infrastructure for the purposes of container operations does not form part of the Project, this would only be possible once the Project is completed. Therefore, this is considered to be reasonably foreseeable outcomes of the Project's development.

Construction and operation of infrastructure for the purposes of container operations on the extended quayline and wharf area has been considered, where relevant, as a facilitated development. Consideration of potential facilitated impacts upon Aboriginal cultural heritage associated with the facilitated development is presented in Section 9.3.

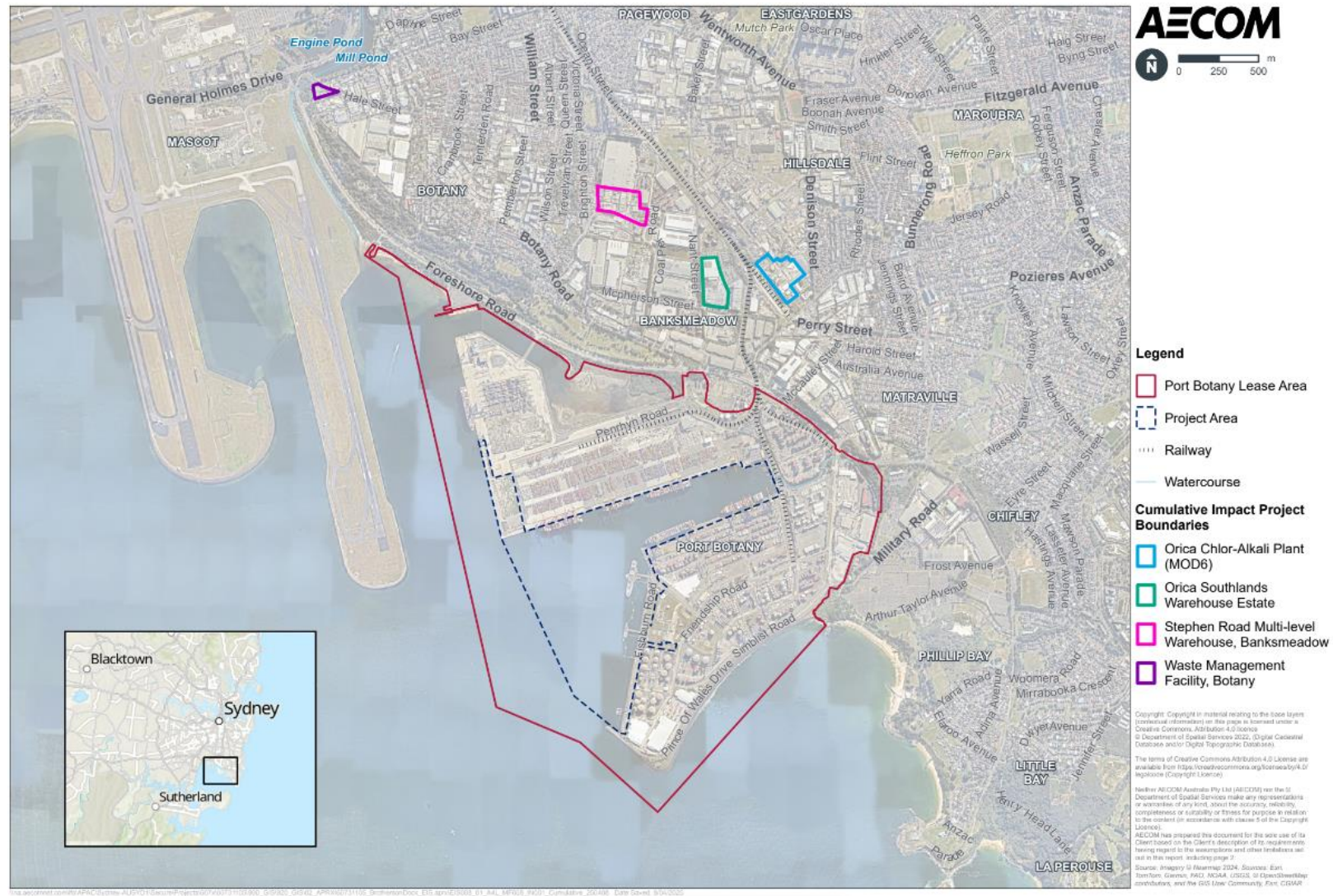


Figure 2-1 Developments identified for consideration of potential cumulative impacts with the Project

2.3 Project team

Geordie Oakes (Principal Heritage Specialist, AECOM) managed all aspects of the Aboriginal heritage assessment detailed herein and was the primary author of this report. Dr Andrew McLaren (Principal Heritage Specialist, AECOM) provided technical review of this assessment report. The visual inspection was undertaken by Geordie and RAP field representatives (as described in Section 7.0).

Geordie holds a Bachelor of Arts (Honours) degree in historic and prehistoric archaeology from Sydney University and a Graduate Certificate in paleo-anthropology from the University of New England. Geordie has over 18 years of Australian Aboriginal cultural heritage management experience.

Andrew holds a Bachelor of Arts (Honours) degree from the University of Queensland, a Master of Cultural Heritage from Deakin University, and a PhD from the University of Cambridge in England. He has over 15 years of Australian Aboriginal cultural heritage management experience.



Figure 2-2 Regional context

3.0 Aboriginal community consultation

Aboriginal community consultation acknowledges the right of Aboriginal people to be involved, through direct participation, on matters that directly affect their heritage. Involving Aboriginal people in all facets of the assessment process ensures that they are given adequate opportunity to share information about cultural values, and to actively participate in the development of appropriate management and/or mitigation measures. The successful identification, assessment, and management of Aboriginal cultural heritage values is dependent on an inclusive and transparent consultation process.

Aboriginal community consultation for the current assessment has been undertaken in accordance with Heritage NSW's *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (the Consultation Requirements) (DECCW, 2010a). The results of the consultation process are detailed below. A consultation log is provided in Annexure A.

3.1 Stage 1 – Notification and registration

Stage 1 of the Consultation Requirements aims to identify, notify, and register Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects/ sites and/ or places in the Project Area.

3.1.1 Consultation with regulatory agencies

Section 4.1.2 of the Consultation Requirements stipulates that proponents are responsible for ascertaining, from reasonable sources of information, the names of Aboriginal people who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/ or places. Proponents are required to compile a list of Aboriginal people who may have an interest in the Project Area and hold knowledge relevant to determining the cultural significance of Aboriginal objects and/ or places by writing to:

- Heritage NSW
- The relevant Local Aboriginal Land Council (LALC)
- The Registrar under the *Aboriginal Land Rights Act 1983* for a list of Aboriginal owners
- The National Native Title Tribunal (NNTT) for a list of registered native title claimants, native title holders, and registered Indigenous Land Use Agreements
- NTSCORP Limited (the Native Title Service Provider for Aboriginal Traditional Owners in New South Wales and the Australian Capital Territory)
- The relevant local council(s)
- The relevant catchment management authorities for contact details of any established Aboriginal reference group (the catchment management authorities have previously notified AECOM that they would not provide this information).

In accordance with this requirement, the following agencies were contacted via email/letter on 29 January 2025 requesting information on relevant Aboriginal persons and organisations:

- Heritage NSW
- La Pouse LALC (LPLALC)
- Office of the Registrar, *Aboriginal Land Rights Act 1983*
- The NNTT
- NTSCORP Limited
- Randwick and Bayside Councils.

The following four agencies responded:

- The Office of Registrar responded on 30 January 2025, noting that the Kamay National Park and Towra Reserve, located south of the Project Area, would be registered soon. The Office of the Registrar also suggested contacting the LPLALC
- Heritage NSW responded on 31 January 2025, providing a list of Aboriginal parties for relevant LGAs
- Randwick Council responded on 4 February 2025, suggesting contact with the LPLALC
- Bayside Council responded on 7 February 2025, suggesting contact with the LPLALC and the Gujaga Foundation.

A copy of the responses is provided as Annexure B.

3.1.2 Public notification

Section 4.1.3 of the Consultation Requirements requires that, in addition to writing to the Aboriginal people identified by the agencies listed in Section 3.1.1, the proponent must also place a notice in the local newspaper circulating in the general location of the proposed project. The notification must outline the project and identify its location.

In accordance with this requirement, a public notice was placed in the *Daily Telegraph* on 13 February 2025 (refer to Annexure C). The closing date for registration via this notice was 27 February 2025 which provided the necessary minimum 14-day period for an expression of interest.

3.1.3 Registration of interest

Section 4.1.3 of the Consultation Requirements requires that proponents must write to the Aboriginal people whose names were obtained through the regulatory agencies and the relevant LALC(s) to notify them of the proposed project and invite them to register an interest in participating in the process of community consultation.

In accordance with this requirement, on 12 February 2025, a letter/ email inviting an expression of interest and containing summary information on the Project was sent to all Aboriginal persons and organisations identified by the regulatory agencies. A total of 50 Aboriginal individuals and organisations were invited to register an interest in being consulted. The closing date for expressions of interest was 27 February 2025, which provided the minimum 14-day period for registering interest.

Ultimately, a total of ten organisations registered an interest in being consulted for the current assessment (refer to Annexure D). In addition, the La Pouse LALC was automatically registered despite not responding to the registration of interest, bringing the total to 11 RAPs. An opportunity was provided for RAPs to withhold their details from being forwarded to the LALC and/or Heritage NSW. No RAPs requested that their details be withheld.

Summary information on all RAPs, including registration dates, is provided in Table 3-1.

Table 3-1 RAPs for the current assessment

#	Organisation	Date of registration	Primary contact person(s)
1	La Pouse LALC	-	-
2	Scott Franks on the behalf of the Wonnarua PBC	12/02/2025	Scott Franks
3	Wailwan Aboriginal Group	12/02/2025	Phil Boney
4	Didge Ngunawal Clan	12/02/2025	Paul Boyd and Lily Carroll
5	Bariyan Cultural Connections	12/02/2025	Kayelene Slater
6	Konanggo Aboriginal Cultural Heritage Services	13/02/2025	Robert Young
7	Ngambaa Cultural Connections	15/02/2025	Kaarina Slater
8	Kamilaroi Yankuntjatjara Working Group	18/02/2025	Phil Khan

#	Organisation	Date of registration	Primary contact person(s)
9	Butucarbin Aboriginal Corporation	24/02/2025	Jennifer Beal
10	Amanda Hickey Cultural Services	25/02/2025	Amanda Hickey
11	A1 Indigenous Services	25/02/2025	Carolyn Hickey

3.1.4 Notification of Registered Aboriginal Parties (RAPs)

Section 4.1.6 of the Consultation Requirements requires that the proponent make a record of the names of each Aboriginal person who registered an interest and provide a copy of that record, along with a copy of the expression of interest letter forwarded to the Aboriginal parties, to the relevant Heritage NSW regional office and LALC. Section 4.1.5 of the Consultation Requirements provides the opportunity for Aboriginal persons to withhold their details from being forwarded to these parties.

In accordance with these requirements, on 20 March 2025, a list of RAPs for the current assessment was forwarded to Heritage NSW and the LPLALC. A copy of the expression of interest letter was included in this correspondence.

3.2 Stage 2 – Presentation of information about the Project

The aim of Stage 2 of the Consultation Requirements is to provide RAPs with information about the scope of the proposed project and the cultural heritage assessment process.

For the current assessment, presentation of information about the Project was provided to RAPs as part of the expression of interest letter, draft assessment methodology review process (refer to Section 3.3.2), and during the visual inspection of the Project Area.

3.3 Stage 3 – Gathering information about cultural significance

The aim of Stage 3 of the Consultation Requirements is to facilitate a process whereby RAPs can:

- Contribute to culturally appropriate information gathering and the assessment methodology
- Provide information that would enable the cultural significance of Aboriginal objects and/ or places in the Project Area to be determined
- Have input into the development of any cultural heritage management measures.

For this assessment, consultation with RAPs regarding the cultural heritage values of the Project Area included:

- A request with the draft assessment methodology package for any initial comments regarding the cultural values of the Project Area
- Discussion of cultural heritage values during the visual inspection of the Project Area
- Provision of a draft of this ACHAR to all RAPs for comment prior to finalisation.

3.3.1 Registration of interest

No information on the cultural values of the Project Area or its environs was provided by RAPs as part of their responses to the expression of interest letter.

3.3.2 Draft assessment methodology

Sections 4.3.1 and 4.3.2 of the Consultation Requirements require that the proponent present and/ or provide the proposed methodology for the cultural heritage assessment to RAPs and that RAPs be given a minimum of 28 days to review and provide feedback on this methodology.

All RAPs were forwarded a draft of the proposed assessment methodology for the Project on 28 February 2025 (refer to Annexure E). The specified closing date for comments on the methodology was 29 March 2025, which provided the necessary minimum 28-day period for comment.

Four responses were received on the proposed assessment methodology. Summaries of the responses are presented in Table 3-2 and attached as Annexure E.

Table 3-2 RAP responses to draft methodology

RAP	Representative(s)	Date of response	Type	Response
Ngambaa Cultural Connections	Kaarina Slater	7/03/2025	Email	"I would like to confirm that I have received and support the current methodology for the port botany Quayline project"
Wailwan Aboriginal Group	Phil Boney	10/03/2025	Email	"Thankyou for contacting Wailwan Aboriginal Group, We understand that the proposed works takes place in a highly disturbed context and that there is little requirement for test excavations or ongoing field works; However, we would like to be able to participate in the visual inspection if possible"
Amanda Hickey Cultural Services	Amanda Hickey	20/03/2025	Email	"Thank you for your email AHCS support the draft methodology If you need anything please let me know"
Kamilaroi Yankuntjatjara Working Group	Phil Khan	31/03/2025	Email	"Thank you for your methodology for Port Botany Quayline Equalisation project, the study area is highly significant and sensitive to our people. Port Botany would have provided fish, shellfish and crustaceans and wetlands ducks, swans & reeds, shell middens, kangaroos & emu's were common along the shoreline. Creeks and springs around Port Botany provided freshwater. We agree and support your report to do a visual site inspection. We look forward to working alongside you on this project"

3.3.3 Visual inspection of the Project Area

Visual inspections of the Project Area were completed on 25 March 2025 by NSW Ports representatives and LPLALC representatives (Chris Ingrey and Paul Ryan) and on 2 April 2025 by AECOM Principal Heritage Specialist Geordie Oakes with LPLALC site officer Steven Ella. No specific cultural values were communicated to AECOM as part of the site inspections. LPLALC representatives noted that there was limited potential for archaeological remains to be present within the Project Area due to prior development in the area, primarily dredging associated with the construction of the existing port.

3.4 Stage 4 – Review of draft assessment report

The aim of Stage 4 of the Consultation Requirements is to prepare and finalise an ACHAR with input from RAPs.

In accordance with Section 4 of the Consultation Requirements, on 2 May 2025, a draft of this ACHAR was issued to all RAPs for their review. The closing date for comments was 31 May 2025, which provided the necessary minimum 28-day period for comment.

One response was received to the draft ACHAR issued to RAPs and is presented in Table 3-3 and attached as Annexure F.

Table 3-3 RAP responses to draft ACHAR

RAP	Representative(s)	Date of response	Type	RAP response
Kamilaroi Yankuntjatjara Working Group	Phil Khan	02/06/2025	Email	Thank you for your Draft ACHAR for Port Botany Quayline Equalisation, we agree and support your management recommendations.

4.0 Environmental context

This section describes the landscape context of the Project Area as a basis for predicting both the nature of past Aboriginal activity within it and its associated archaeological record. Consideration of the landscape context of the Project Area is based on the proposition that the nature and distribution of Aboriginal archaeological materials are closely connected to the environments in which they occur. Environmental variables such as topography, geology, hydrology, and the composition of local floral and faunal communities would have played an important role in influencing how Aboriginal people moved within and utilised their respective Country. Among other things, these variables would have affected the availability of suitable campsites, drinking water, economic plant and animal resources, and raw materials for the production of stone and organic implements. At the same time, an assessment of historical and contemporary land use activities, as well as geomorphic processes, such as soil erosion and aggradation, is critical to understanding the formation and integrity of archaeological deposits.

4.1 Physical context

The Project Area is situated within Port Botany, a deep-water seaport in Botany Bay, adjacent to Botany Road in the Sydney suburb of Matraville. Irregularly shaped, the Project Area is approximately 119 ha in size and covers part of the existing Brotherson Dock area and extends into the adjacent waters of Botany Bay. The dock itself includes deep-water berths that accommodate large, modern container ships and is equipped with advanced container handling equipment, including quay cranes, automated stacking systems, and modern tracking systems.

4.2 Topography

The Project Area for this assessment consists of part of the existing Brotherson Dock area and waters of Botany Bay, with the dock area situated on fully reclaimed land formed during the original construction of Port Botany. The extensive land reclamation efforts during construction of the port, combined with historical land use activities, have significantly altered the natural topography of the Project Area and the broader Botany Bay landscape.

Prior to the development of Port Botany, the bay's northern shoreline, including the area now encompassed by the port, featured a coastal environment consisting of sandy beaches, freshwater creeks, tidal flats, salt marshes, and mangrove forests, with the open waters of the bay separated from the shoreline by a tidal flat approximately 260 metres wide (refer to Figure 4-1 and Figure 4-2). Originally named Stingray Bay by Captain Cook in 1770, due to the large number of stingrays his crew caught, he later changed the name to Botany Bay because of the diverse and unique plant life documented by the expedition's botanists, Joseph Banks (Cook, 1893). Cook, in his journal, described the bay as spacious, with a sandy bottom and suitable anchorage for ships. The area had a natural shoreline with gentle dunes and a low-lying estuarine ecosystem that provided habitat for various marine and bird species. The waters were recorded as relatively shallow, featuring sandbanks and seagrass beds offshore, and were influenced by tidal changes and sediment transport. According to the 1873 Admiralty Chart of the bay (refer to Figure 4-1), the depth of water within the Project Area ranged from three to 31 feet (i.e., 0.9 to 9.4 metres).

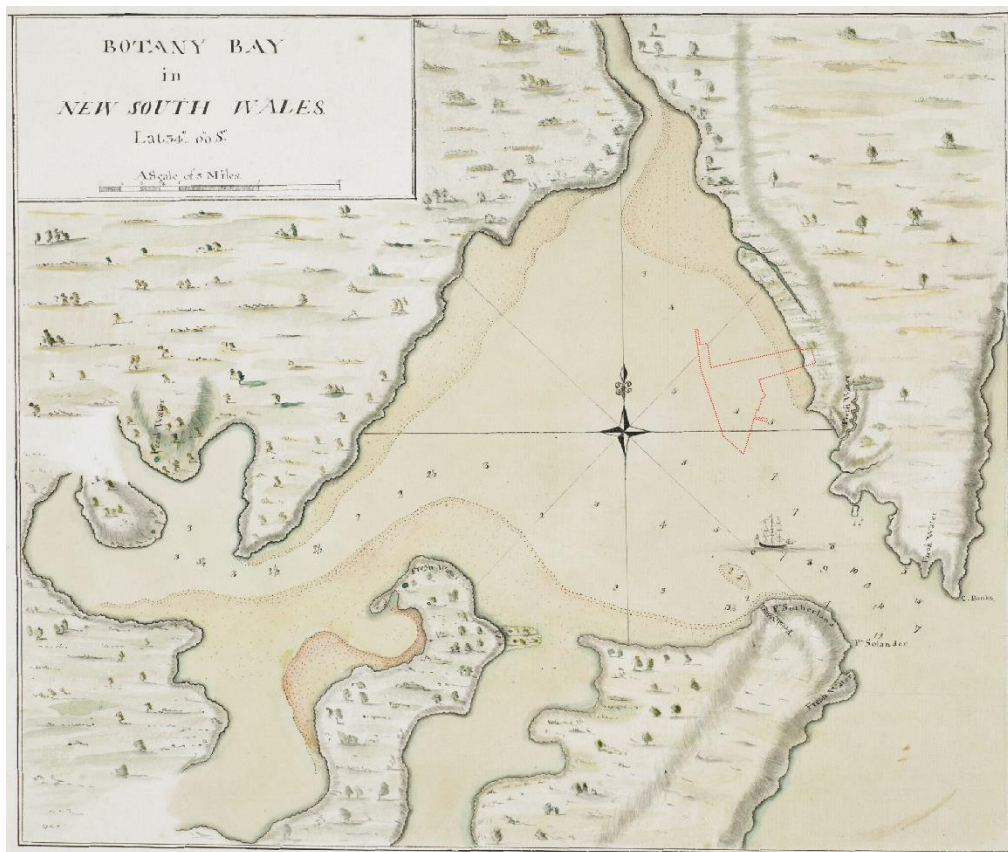


Figure 4-1 Cook's 1770 chart of Botany Bay showing the Project Area in red

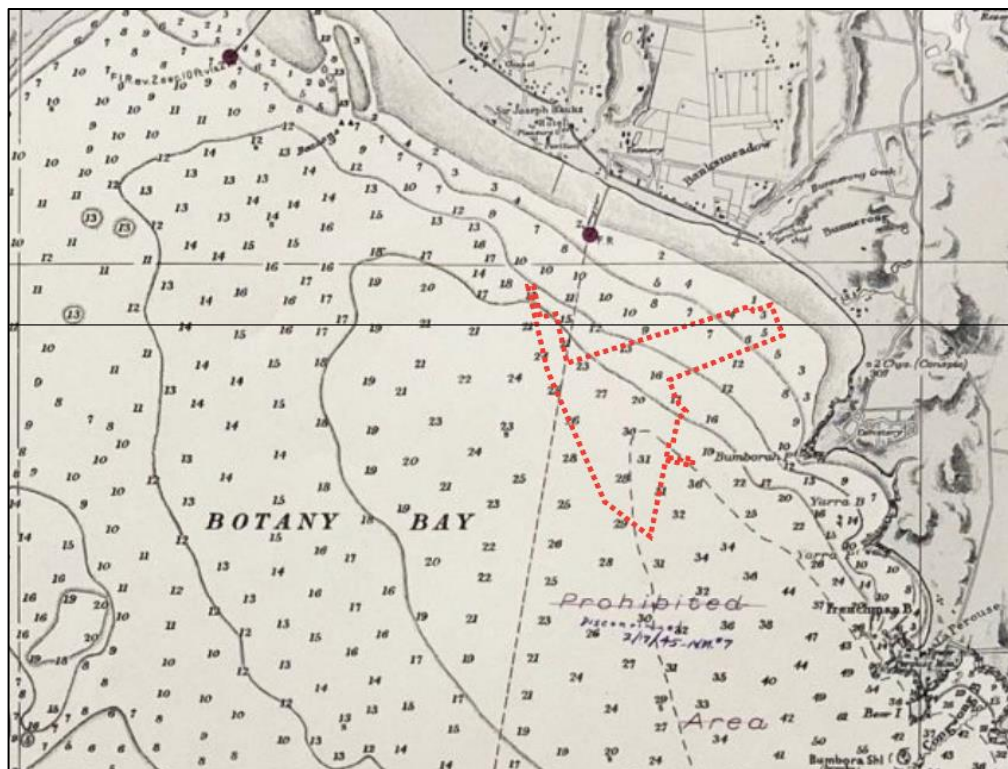


Figure 4-2 1873 Admiralty Chart of Botany Bay and Port Hacking showing water depths in feet

As noted in Section 4.5, Botany Bay's northern shoreline underwent considerable development prior to the port's construction. However, it wasn't until 1969, when the NSW Government approved the development of port facilities in Botany Bay, that the most significant landscape modifications occurred. The approval included plans to dredge the entrance channel and approach routes to a depth of approximately 21 metres and reclaim approximately 607 hectares of land, extending about 1.7 kilometres southwest of the original foreshore. Construction of the port began in 1971, with dredging of the bay commencing at this time. The dredging was essential to create deep-water berths for large cargo and container ships that could not access the shallower natural waters of Botany Bay. At the time, the bay's seabed was relatively shallow and composed of sand, silt, and other sediments, which were systematically removed using dredging equipment (trailing suction hopper dredgers). Dredged material was used for land reclamation, including the creation of foundations for port terminals, wharves, and container storage areas. Large seawalls were also constructed of rock and other material to both contain the reclaimed land and also protect it from erosion (NSW Ports, 2019). Dredging activities have continued periodically over time to deepen and maintain the shipping channels, and to expand port capacity (refer to Section 4.5).

4.3 Soils, geology and geomorphology

Soils within and immediately surrounding the Project Area have been mapped by (Hazelton & Tille, 1993) as belonging to the Disturbed Terrain (labelled as 'xx') soil landscape. Soils within this landscape are described as having been disturbed to a depth of at least 100 centimetres below ground level (bgl), with original soils either removed, buried, or otherwise severely disturbed (Hazelton & Tille, 1993). Likewise, reference to the 1:100,000 geological map sheet for Sydney (9130) indicates that the Project Area's geology is that of "Man-made fill. Dredged estuarine sand and mud, demolition rubble, industrial and household waste".

In a wider context, the Project Area is situated within the Botany Basin, a tectonically formed bedrock depression filled with unconsolidated sediments known collectively as the 'Botany Sands'. The basin includes two large tidal bays, Botany Bay in the north and Bate Bay in the south, separated by the Kurnell Peninsula. Bedrock valleys associated with several palaeo-river systems that existed prior to the inundation of the bay—including the palaeo-Cooks, George, and Botany rivers—have been identified within the bay, with the one closest to the Project Area referred to as the 'Botany River' (refer to Figure 4-3). Surficial sediments within Botany Bay include beach, dune, spit, bay, tidal deltaic and mud basin sediments of Holocene antiquity and have been described as being made up of three primary components: detrital sand, mud and biogenic material (Roy & Crawford, Holocene Geological Evolution of the Southern Botany Bay-Kurnell Region, Central New South Wales Coast', in Records of the Geological Survey of New South Wales, 1981). Sediments of Pleistocene age, consisting mainly of sand but also including layers of clay and peat, underlie these deposits.

The late Quaternary evolution of the Botany Bay-Kurnell Peninsula region has been the subject of considerable research (e.g. (Albani A., 1981); (Roy & Crawford, Holocene Geological Evolution of the Southern Botany Bay-Kurnell Region, Central New South Wales Coast', in Records of the Geological Survey of New South Wales, 1981); (Hahn, 1985)). Evolutionary models of particular interpretive value include those prepared by Hann (1985) and Roy and Crawford (1981), with the latter dealing specifically with the Holocene Epoch. These complimentary models are summarised below. As indicated, glacio-eustatic fluctuations in sea level are central to both models and are suggested to have been a key driver of sedimentary change in the region.

Hann (1985), recognised four basic depositional stages dating from the Pleistocene (pre 100,000 yrs ago) to today that included the following:

Stage 1 – Pleistocene (pre 100,000 yr ago) high sea level with estuarine deposits

Marine flooding of Botany Bay embayment. Sands, muds and clays at least 50 metres thick deposited in an estuarine environment, interspersed with periods of exposure to subaerial weathering.

Stage 2 – Pleistocene low sea level with estuarine and dune deposits

Period of vigorous dune building within the embayment, with large-scale northerly dune migration across Botany Bay. Prolonged exposure of resulting dunes facilitated the development of vegetation, organic swamp deposits in dune swales and podzol soils. Dune field traversed by a sinuous fluvial system draining through Bate Bay.

Stage 3 – Holocene rising sea level with various dune deposits present

Extensive barrier dune system offshore of present coast transgressed and reworked by landward moving coastline. Dunes blocking the entrance to Botany Bay likely breached around 8,000 yr BP. Dune sands at the entrance to, and within the bay reworked by waves and currents. Present position of sea level reached by 6,200 yr BP, producing a large bay environment.

Stage 4 – Late Holocene to modern high sea levels level with various dune deposits present

Thin surficial depositional unit formed over much of the bay via disturbance of the bay bed by waves. Contraction and westward migration of Georges River tidal delta to current position, with relict channel infilled by sediments likely derived from continued erosion of central bay bed.

Meanwhile, Roy and Crawford's (1981), model for the Holocene evolution of the Botany Bay area included the following five phases:

Phase 1 – Pre 9,000 year BP, -20 m current sea level (CSL)

Characterised by a vegetated, low relief swampy sand plain incised by river channels draining south-eastwards beneath Bate Bay (Cooks, Georges and Hacking rivers) and between Botany Heads. Terrestrial dunes of probable late Pleistocene antiquity are thought to have formed on this plain as a result of the deflation of its surface. Flooding of the inner continental shelf during the initial stages of the marine transgression drowned the lower reaches of the Bate Bay and Botany Heads river valleys and partially blocked their mouths with marine sand.

Phase 2 – 9,000 to 7,000 BP, -12 to -9 m CSL

Pleistocene sand plain widely inundated forming a large shallow estuary encompassing Botany Bay. Georges and Hacking river valleys now deep, narrow re-entrants extending well inland. Within Botany Bay, newly introduced marine sand, as well as existing Pleistocene sediments in Botany Bay, were actively reworked by waves and tidal currents. Tidal levees at the mouth of the Georges River began prograding south-eastwards along the channel margin, resulting in the deposition of estuarine sands 10-12 m thick at the river mouth and in its marginal shoals.

Phase 3 – 7,000 to 4,000 BP, -9 to CSL

Proto-barrier destroyed through a combination of wind deflation and littoral drift, with sand loss potentially exacerbated by a reduction in the supply of marine sand from the shelf. Formation of beach ridges on the Kurnell isthmus, and on the western side of Botany Bay, likely occurred at the end of the marine transgression. Bayward progradation of Kurnell spit from the inner side of the Kurnell Headland occurred concurrently with beach ridge development, constricting the mouth and ultimately resulting in the formation of a new distributary channel, which breached the levee further upstream.

Phase 4 – 4,000 to 1,000 BP, CSL

Two sets of onlapping, parabolic dunes emplaced on the Kurnell isthmus via the northward migration of sands derived from the Bate Bay frontal dunes and beach face. Dunes subsequently stabilised by vegetation. In Botany Bay, key developments included the evolution of the Georges River delta to its Stage IV configuration and the continued westward growth of Kurnell spit.

Phase 4 – 1,000 to present, CSL

Historically-documented trend towards deepening of bay (i.e., by up to 1m) likely commenced much earlier, once the bay had established equilibrium configuration with normal wave climate. Seaward movement of bay sand to deep water inferred. Changing distribution of sea grasses linked to increased occurrence of storm events (aggravated in more recent times by dredging activities), as well as a natural, long-term erosion of the bay.

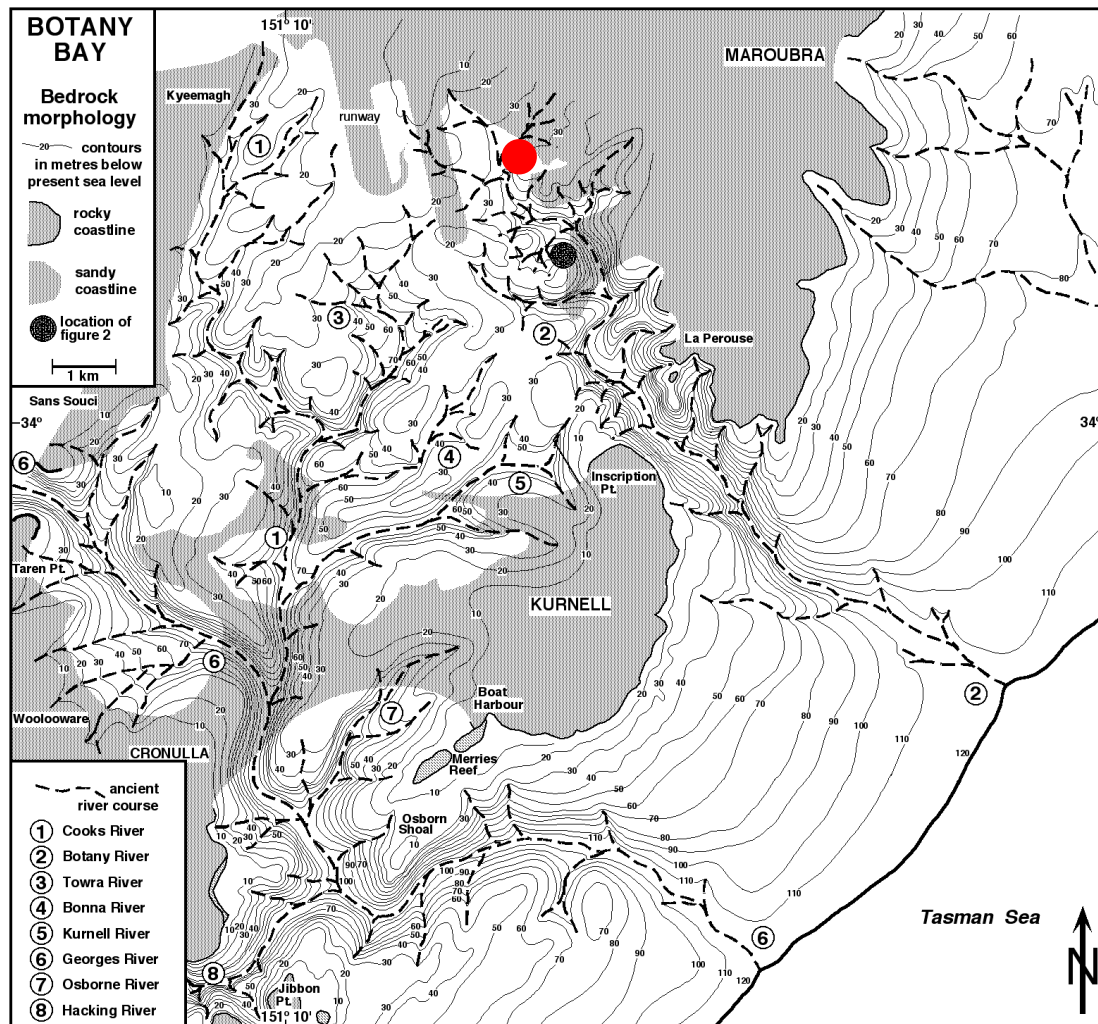


Figure 4-3 Bedrock morphology of the Botany Basin, with associated ancient river systems. Approximate location of Project Area marked in red (Albani & Rickwood, 1998)

4.4 Hydrology

Botany Bay can be classified as a drowned river valley–type estuary (Roy P. , 1984), with a natural bathymetry that is generally shallow (<10 m), as shown in Figure 4-2. Since European settlement, the bay's original seabed has been extensively modified through repeated dredging programs. Despite these changes, the bay's waters remain typically marine in salinity.

Prior to the formation of the Kurnell Peninsula tombolo, around 9,000 years ago, when the sea level was approximately 30 m below its present level and Botany Bay not submerged, a complex network of watercourses flowed across the bay into the sea which at the time was several kilometres to the east (refer to Figure 4-3). One of these watercourses, the "Botany River," flowed across the northern part of the bay, with its headwaters located near the Project Area. Following the end of the Last Glacial Maximum and rising sea levels, Botany Bay was submerged and this river was engulfed (Albani & Rickwood, 1998).

At the time of European settlement, the northeastern shoreline of Botany Bay featured several freshwater creeks that drained into the bay, including Bunnerong Creek which discharges into the bay near the Project Area. A smaller creek in the northeastern area, the Mill Stream also drained into the bay. It was named for the mill built in the early colonial period near its mouth and underwent significant modification for construction of the airport. More broadly, the Cooks River, located to the west of the Project Area, was one of the most significant freshwater creeks that drained into the bay.

4.5 Land disturbance

Land within the Project Area fully consists of reclaimed land created during the construction of Port Botany. Land reclamation, which included multiple programs of channel dredging to a maximum depth of approximately 21 metres, significantly altered the original landscape and the bay's seabed. Historical aerial photographs, together with available documentary sources and field observations, provide a framework for assessing the nature and extent of previous land alterations across the Project Area. An examination of aerial photographs from 1943 to 2009 (refer to Figure 4-4) highlights the range of land reclamation activities for the Project Area and surrounds, including:

- Coastline modifications to parts of the northeastern shoreline prior to 1943 including:
 - Dredging and land reclamation of parts of the shoreline to accommodate industrial activities
 - Construction of the former Bunnerong Power Station on the shoreline, including cooling water intakes and outlets
 - Installation of rock revetments and seawalls along parts of the shoreline to stabilise it and prevent erosion
 - Damming and alteration of watercourses such as Bunnerong Creek
 - Installation of small wharves and jetties, as well as stormwater drains
- Between 1943 and 1971, the north-eastern shoreline continued to be modified due to industrial expansion, airport development, and shoreline stabilisation efforts
- By 1975, large-scale land reclamation for Port Botany was underway with the dredged material used to create large areas of reclamation
- In 1979, both dredging and land reclamation were still ongoing for the port facilities
- By 1991, the port facilities were operating with the Brotherson Dock being Sydney's main container terminal. The construction of bulk liquids berth had been completed to support petroleum, chemical, and gas imports. Also, development of road and rail connections, warehouses, cranes, and cargo-handling equipment
- Around 2009, Port Botany underwent additional land reclamation (approximately 60 hectares) as part of its third terminal expansion for the Port Botany Expansion Project.

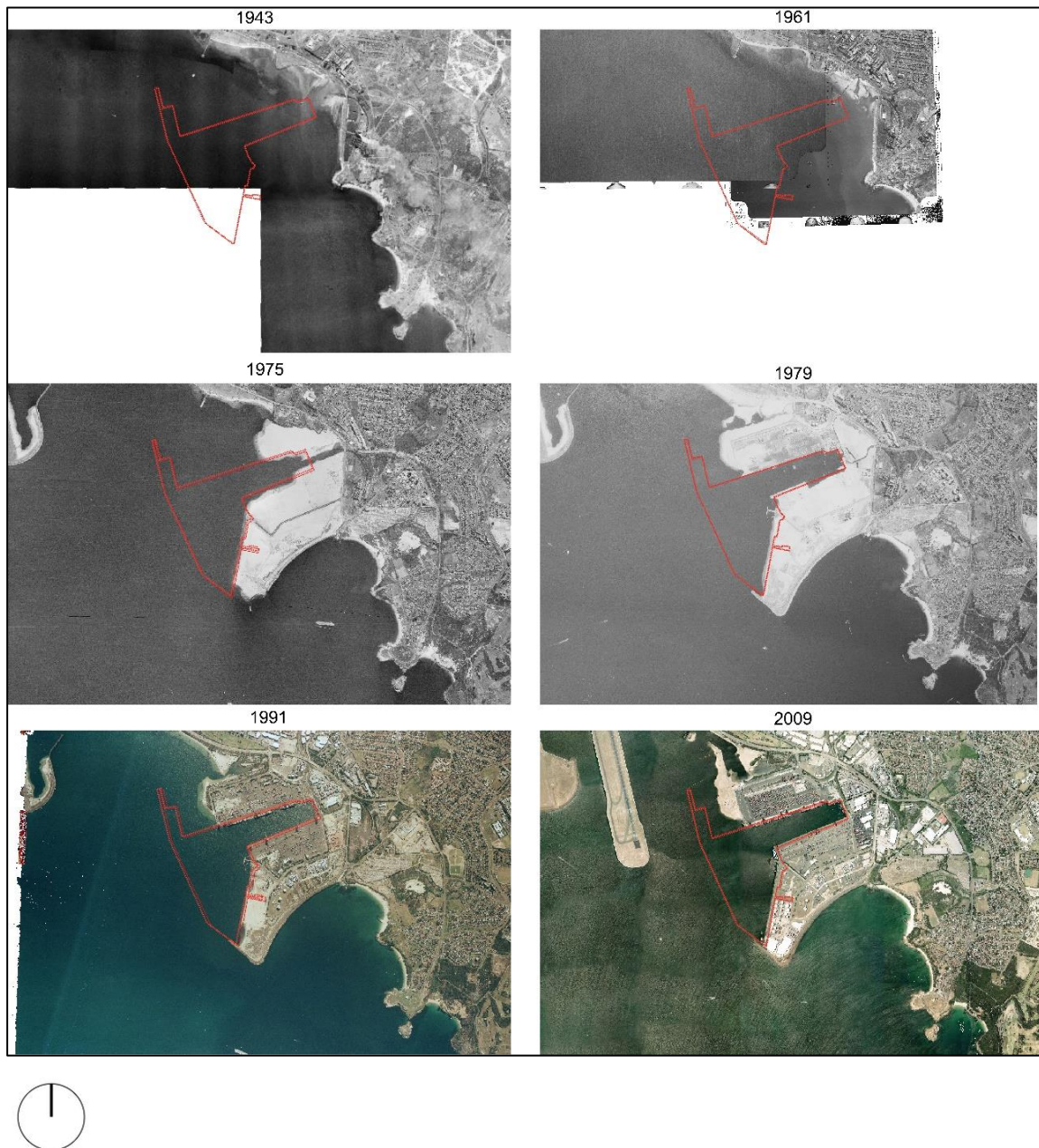


Figure 4-4 Historic aerials (Source: Land & Property Information NSW)

With regard to dredging in Port Botany, there were three main dredging phases to deepen shipping channels and reclaim land for the port. A summary of the main phases is provided below (NSW Ports , 2019).

4.5.1 Initial dredging and land reclamation (1971–1979)

This phase consisted of site preparation works for the first container terminal that included:

- Initial dredging of Botany Bay entrance and approach routes to approximately 21 metres
- Dredging of Brotherson Dock channel to approximately 12.8 metres below the seabed
- Use of dredged material to create reclaimed land including Brotherson Dock
- Construction of breakwaters and revetments for coastal protection.

4.5.2 Second expansion and deepening (1980s–1991)

Additional dredging was completed within the dock and channel areas to a depth of 15 metres to:

- Expand shipping channels and berths for larger container ships
- Support the bulk liquids berth development
- Further reclaim land to accommodate port infrastructure.

4.5.3 Third major expansion (2005–2011)

This phase was undertaken to modernise the port and included dredging up to approximately 16 metres depth in order to:

- Create a third container terminal
- Dredge deeper shipping channels to handle post-Panamax ships
- Additional land reclamation (around 60 hectares) using dredged sand from offshore Sydney.

Consideration of the nature and extent of historical dredging activities within the Project Area suggests that Aboriginal archaeological deposits that once existed within this area (i.e., prior to sea-level rise and subsequent dredging) would have been destroyed or otherwise severely disturbed. Potential for archaeological materials to be present, therefore, is assessed as low.

4.6 Key observations

Key observations to be drawn from a review of the existing environment of the Project Area are as follows:

- The Project Area is situated within the Botany Basin, a tectonically formed bedrock depression filled with unconsolidated sediments known collectively as the 'Botany Sands'. The basin includes two large tidal bays, Botany Bay in the north and Bate Bay in the south, separated by the Kurnell Peninsula
- Prior to inundation, Botany Bay was characterised by a series of vegetated, low relief, swampy sand plains and dunes that were incised by several paleo-river channels that generally drained eastward
- Botany Bay went through various periods of dune formation, inundation and reworking of sands prior to and during the Holocene Epoch
- Dunes blocking the entrance to Botany Bay were likely breached around 8,000 yr BP with the current sea level reached by 6,200 yr BP, producing a large, inundated bay environment
- Surficial sediments within Botany Bay include beach, dune, spit, bay, tidal deltaic and mud basin sediments of Holocene antiquity and have been described as being made up of three primary components: detrital sand, mud and biogenic material. Sediments of Pleistocene age, consisting mainly of sand but also including layers of clay and peat, underlie these deposits
- Before the development of Port Botany, the north-eastern shoreline of Botany Bay was located approximately 300 metres east of the Project Area, with the Project Area fully encompassed by the bay's waters at the time
- According to the 1873 Admiralty Chart of the bay, the water depths within the Project Area ranged from three to 31 feet (0.9 to 9.4 metres)
- The Project Area's original seabed has been significantly altered over the past 50 years by different phases of dredging and land reclamation activities with the bay dredged to a depth of up to 21 metres in places
- It is likely that pre-existing Aboriginal sites and deposits that may have existed within the Project Area prior to both the inundation of Botany Bay around 8,000 BP and the dredging activities associated with the port have been destroyed or significantly disturbed by these activities. Accordingly, the potential for Aboriginal archaeological materials to be present is assessed as low.

5.0 Archaeological context

This section describes the archaeological context of the Project Area on a regional and local scale. Archaeological data of relevance to this area, including the results of previous archaeological investigations within and surrounding the Project Area, have been reviewed to contextualise the results of the current assessment.

5.1 Regional context

5.1.1 The Sydney region

Available archaeological data indicate that Aboriginal people have occupied the Sydney region¹ for at least 36,000 years (Williams *et al.*, 2014). Late Pleistocene/ early Holocene occupation of the region is evidenced by radiometric dates from both coastal and hinterland sites (see Attenbrow, 2010:18, Table 3.1). Excavated material culture assemblages from these periods have been interpreted as evidence of relatively small populations of Aboriginal people employing settlement patterns of high residential and low logistical mobility (Attenbrow 2010:152-154; McDonald, 2008: 39; Williams *et al.*, 2014). Late Pleistocene/ early Holocene chipped stone assemblages attest to a preference for silicified tuff sourced from secondary geological sources, such as the Hawkesbury-Nepean River gravels (McDonald, 2008; Williams *et al.*, 2014). However, they also indicate the exploitation of other raw material types such as silcrete, quartzite, petrified wood, and quartz. Direct freehand percussion appears to have been the dominant reduction technique employed by Late Pleistocene/ early Holocene Aboriginal knappers, with bipolar flaking comparatively poorly represented in available assemblages. Retouched 'tools' include unifacially-flaked pebble implements, dentated saws, burins and a variety of scrapers, with unmodified utilised flakes also well represented (Kohen *et al.*, 1984; Williams *et al.*, 2014). Stone tools such as these would have been complemented by a range of organic implements such as wooden digging sticks, spears, and boomerangs. However, these do not survive archaeologically (Attenbrow, 2010:154).

Compared with the late Pleistocene/ early Holocene, archaeological evidence for mid-to-late Holocene Aboriginal occupation of the Sydney Region abounds (Attenbrow 2010; McDonald 2008). In keeping with broader Australian developments (e.g., Allen and O'Connell, 1995; Beaton, 1985; Brumm and Moore, 2005; Attenbrow *et al.*, 2009; Lourandos, 1983, 1997; Lourandos and Ross, 1994), the social and economic systems of Aboriginal groups living in the region during this period appear to have become increasingly complex. Available archaeological data, for example, suggest a significant increase in site establishment and population densities over time, as well as a concomitant growth in the size and complexity of social aggregation (but see Attenbrow (2012) and Hiscock (2008) for cautionary notes on the interpretive significance of radiometric date graphs). Growing economic specialisation is indicated by the emergence and/ or proliferation of complex fishing and stoneworking technologies, with the latter linked variously to increased foraging risk associated with greater climatic variability as well as other variables such as redefinition of social space, reduction of resources and increased logistical pre-equipping (Attenbrow *et al.* 2009; McDonald, 2008: 40). Complex, long-distance exchange networks are also attested archaeologically (e.g., Attenbrow *et al.*, 2012; Grave *et al.*, 2012) as are important developments in artistic activities (McDonald, 2008). Higher levels of stylistic heterogeneity in pigment and engraved art across the region, for example, have been linked to increasing territoriality (McDonald, 2008: 42).

With some modification, McCarthy's (1967) *Eastern Regional Sequence* (ERS) of stone artefact assemblages remains the dominant chronological framework for Aboriginal occupation of the region (refer to Table 5-1). Based on appreciable changes in the composition of chipped stone artefact assemblages over time, the ERS hypothesises a three phase sequence of 'Capertian' (earliest), 'Bondaian,' and 'Eloueran' (most recent) assemblages and was developed on the basis of McCarthy's (1948, 1964) pioneering analyses of stratified flaked stone assemblages from Lapstone Creek rockshelter, on the lower slopes of the Blue Mountains eastern escarpment, and Capertee 3 rockshelter in the Capertee Valley north of Lithgow.

¹ Following Attenbrow (2012a), the land bounded by the coast on the east, by the Hawkesbury-Nepean River in the north and west, and by a line running east-west through Picton and Stanwell Park in the south.

At present, the most widely cited characterisation of the ERS in the Sydney region is that of a four-phase sequence beginning with the *Pre-Bondaian* (McCarthy's *Capertian*) and moving successively through the Early, Middle, and Late phases of the *Bondaian*, the last of which equates to McCarthy's (1967) *Eloueran* phase. The tripartite division of the Bondaian is based principally on the presence/absence and relative abundance of backed artefacts (Attenbrow, 2010: 101). However, other factors, such as changes in the abundance of bipolar artefacts and different stone materials, as well as the presence/absence of edge-ground hatchet-heads are also relevant.

Table 5-1 McCarthy's (1967) Eastern Regional Sequence (ERS) of stone artefact assemblages

Current phasing	McCarthy's (1967) phasing	Approximate date range	Backed artefact frequency	Bipolar artefacts	Edge-ground hatchet heads
Pre-Bondaian	Capertian	36,000-8,000 BP	Absent	Rare	Absent
Early Bondaian	Bondaian	8,000-4,000 BP	Very low	Rare	Absent
Middle Bondaian		4,000-1,000 BP	Very high	Increasingly common	Present
Late Bondaian	Eloueran	1,000 BP to European contact	Low	Very common	Present
Late Bondaian	Eloueran	1,000 BP to European contact	Low	Very common	Present

5.1.2 Eastern Sydney peninsula

The Aboriginal archaeological record of the eastern Sydney peninsula is well-researched, with scientific investigations of this record having been undertaken since the late 19th century (e.g., David & Etheridge, 1889; Etheridge et al., 1896). Recent decades, in particular, have witnessed a significant increase in the number of Aboriginal archaeological investigations undertaken across the peninsula, with the majority occurring in developer-funded contexts. Investigations to date have generated a large body of archaeological data concerning pre- and post-contact Aboriginal settlement and subsistence patterns, with over 150 Aboriginal archaeological sites having been identified and investigated in varying degrees of detail. In common with the Sydney region as a whole, the overwhelming majority of these sites remain undated. However, most are thought to be of mid-to-late Holocene antiquity. Evidence for 'early' (i.e., late Pleistocene/early Holocene) Aboriginal occupation of the peninsula remains scarce, with occupation evidence of this antiquity obtained from only two sites: the Prince of Wales Hospital in Randwick (Dallas et al., 1997) and Discovery Point (formerly Tempe House), immediately south of the Cooks River, on the western edge of the peninsula (Jo McDonald CHM, 2005b).

AHIMS data for the eastern Sydney peninsula, obtained by AECOM in 2020 and presented in Table 5-2, show that rock engravings, shell middens and rockshelters are the most common pre-colonial site types², with other, less common types including open artefact sites, grinding grooves, burials and a single example each of a hearth, scarred tree and ochre quarry. Known rockshelter and shell midden sites, as indicated in Table 5-2, include examples with multiple forms of archaeological evidence, attesting variously to activities such as food preparation and consumption, organic and non-organic tool manufacture, the production of rock art and the burial of the dead (Attenbrow, 2010b; McDonald, 2008; Donlan, 1995). Previously identified pre-colonial sites occur principally in coastline settings, with relatively few sites identified across the peninsula's heavily developed interior.

² Areas of potential archaeological deposit (PAD), though well represented across the peninsula, do not comprise archaeological sites.

Archaeofaunal assemblages from the eastern Sydney peninsula indicate the exploitation, for food and other purposes, of wide range of terrestrial and aquatic resources, with fish and shellfish forming a particularly important part of the diet of people living along the coast and estuaries (see Attenbrow, 2002: 19-22, Tables 4-6). Excavated stone, bone and shell artefact assemblages, meanwhile, attest to the production of a variety of implements for use in day-to-day subsistence activities such as fishing and hunting. Common excavated types include shell fishhooks and 'scrapers', bone points and backed stone artefacts (Attenbrow, 2002: 23-25). Ground implements include edge-ground hatchet heads and ground stone files (also known as fishhook files) (Attenbrow, 2002, 2010a).

Table 5-2 AHIMS site data for the eastern Sydney peninsula (as of November 2020)

Site type	AHIMS feature(s)*	Number	%
Rock engraving	ART	55	24.7
Rockshelter	AFT; SHL; AFT; BUR	50	22.4
Shell midden	AFT; SHL; ACD; ART	42	18.8
Potential archaeological deposit	PAD	38	17
Open artefact site	AFT; ARG; BOM	21	9.4
Aboriginal resource and gathering area	ARG	2	0.9
Grinding groove(s)	GRG	5	2.2
Burial	BUR	4	1.8
Waterhole	WTR	2	0.9
First Government House	AFT; BUR; ACD	1	0.
Hearth	HTH	1	0.4
Ochre quarry	OCQ	1	0.4
Scarred tree	TRE	1	0.4
Total	-	223	100

*Key: AFT: artefacts; SHL: shell; ART: rock art; BUR: burial(s); ACD: Aboriginal ceremony and dreaming; GRG: grinding groove(s); OCQ: ochre quarry; BOM: non-human bone and organic material; WTR: waterhole.

5.1.3 McDonald's (2008) Behavioural Land Use Model

Drawing, in particular, on the results of several large-scale archaeological salvage projects across the northern Cumberland Plain, including those undertaken for the various stages of the Rouse Hill Infrastructure Project (e.g., Jo McDonald CHM, 2001, 2005), McDonald (2008) has proposed a behavioural model for prehistoric Aboriginal land use in the Sydney region. Developed in partnership with lithic analyst Beth White over several years, McDonald's (2008) model remains the most comprehensive model of its type for the region. The model, which differs from existing land use models for the region (i.e., Kohen, 1986, 1988; Kohen & Lampert, 1987; Ross, 1976, 1988) in its explicit, dual emphasis on stone artefact technology and rock art, is summarised below.

According to McDonald's (2008) model, Aboriginal groups occupying the Sydney region during the late Pleistocene/ early Holocene were highly mobile. Groups travelled considerable distances between base camps and camped proximate to exploited resources (McDonald, 2008:39). Group territories at this time were large and the preferred raw material for flaked stone tool manufacture was silicified tuff. This raw material was sourced principally from the Hawkesbury-Nepean River gravels (McDonald, 2008:40). Transported lithics were used in woodworking and animal butchery and comprised large cores and simple flake-based implements. Though large, transported cores and implements served as portable raw material supplies and were curated. Backed artefacts were rarely produced during these periods (McDonald, 2008:40). In the late Pleistocene, rock art served as a communicative medium for emphasising broad-scale group cohesion. Social networks at this time were more open and extensive than those recorded at contact (McDonald, 2008:41).

Rising seas associated with the Post-Glacial Marine Transgression (c.21-6.5ka) forced groups previously occupying the region's coastal plain inland. Former low-lying valleys and flats were converted into bays and estuaries. Initially, population densities remained relatively low. However, over time, these increased dramatically, necessitating social mechanisms to mediate uncontrolled and potentially hostile interactions between groups (McDonald, 2008:349). Pigment and engraved art were one of several such mechanisms and was now used to assert both local group distinctiveness and larger-scale (i.e., cultural bloc) cohesion. By 4,000 years BP, groups were occupying smaller territories on a more permanent basis. Groups occupying the Cumberland Plain and surrounding sandstone country now did so on a full time-basis though movement between biogeographic zones still occurred (McDonald, 2008:40). Rock shelters in the latter zone were increasingly used for artefact manufacture and discard. Mobility strategies became increasingly logistically-organised, with groups exploiting the resources of well-defined foraging ranges out of base camps located in environmentally strategic locations (i.e., in terms of resource availability) (McDonald, 2008:40).

The stone artefact technology being employed by Aboriginal people occupying the Sydney region underwent substantial change as a result of these broader changes in demography and settlement organisation. Locally available lithic raw materials were increasingly utilised and there was an overall diminution in the size of utilised toolkits (McDonald, 2008:40). On the Cumberland Plain, silcrete was the preferred raw material and was frequently heated to improve flaking quality. Stone packages were most commonly prepared at exploited stone sources before being transported to residential and other task-specific sites for further use. Blanks selected for reduction were typically reduced via freehand percussion, with bipolar reduction sometimes also utilised. Various core reduction methods were employed, with asymmetric alternating flaking frequently used. During the Middle Bondaian period (c.4,000 to 1,000 years BP), backed artefacts were manufactured in large numbers across numerous sites, with 'industrial' scale production occurring at some sites. These tools were utilised in range of craft and subsistence activities including bone-working, wood-working, plant processing, and animal butchery.

During the Late Bondaian period (c.1,000 years to European contact), there was a reduced emphasis on the occupation of rock shelters, with open camp site locations now foci for habitation. This shift away from rock shelters was a response to the increased spatial requirements of larger social groups associated with a dual social system (McDonald, 2008:349). During times of seasonal abundance, groups lived in large, semi-permanent open 'villages.' However, in times of resource stress, these larger groups dispersed into smaller family or gender-based hunting/ fishing groups who reverted to exploiting their traditional foraging ranges. An increased emphasis on bipolar flaking during this period was linked to an even more intensive use of locally available stone. In coastal areas, backed artefacts all but ceased to be produced. Edge-ground hatchets were widely made and used across the region. As in earlier periods, rock art during the Late Bondaian continued to function as an important communicative medium for the assertion of both local group identity and broader culture area cohesion (McDonald, 2008: 350).

5.2 Local context

5.2.1 AHIMS database

The AHIMS database, administered by Heritage NSW, contains records of all registered Aboriginal objects in accordance with section 89A of the *National Parks and Wildlife Act 1974*. It also contains information about Aboriginal places, which have been declared by the Minister to have special significance with respect to Aboriginal culture. Previously recorded Aboriginal objects and declared Aboriginal places are known as 'Aboriginal sites.'

A search of the AHIMS database was undertaken on 19 August 2024 for a 10 x 10 km area centred on the Project Area. A total of 76 Aboriginal archaeological sites were identified within the search area comprising 22 middens, 20 rock engravings, 10 burials, eight rock shelters, six open artefact sites (i.e., artefact scatters and isolated artefacts), five areas of potential archaeological deposit (PAD), two grinding grooves, two art sites and one quarry (refer to Table 5-3).

Consideration of the locations of previously recorded sites indicates that none are located within the Project Area, with the closest being a rock shelter with midden - “Bumborah Point” (45-6-1152) - located 520 metres to the east of the Project Area but within the port facilities. Two other sites are located outside the Project Area but within the port facilities including a rock shelter with midden site “Botany Bay” (45-6-0976) and a rock engraving site “Botany Bay;Bumborah Point” (45-6-0639). All three sites were added to the AHIMS database in the late 1970s (refer to Table 5-4).

Reference to the site card for 45-6-1152 indicates that this site consists of a rock overhang with an associated shell midden that was recorded by Rosemary Taplin, an amateur anthropologist. While the site was added to the AHIMS database on her behalf in 1979, she likely recorded it sometime before that – probably in the 1960s. The site’s coordinates place it within a highly disturbed hardstand area of Port Botany where shipping containers are currently being stored. Moreover, a review of 1943 historic aerial imagery of the site location indicates that this area had already been completely modified by the Bunnerong Power Station some 20 years earlier. Accordingly, the coordinates are considered incorrect. A review of the site’s description provided in the site card indicates that the site is located on the north-western shore of Bumborah Point, “..on the fringe of the area planned as a port facility” but this description does not offer further clarity to its location. Moreover, the grid coordinates provided in the site card do not appear to correspond with the converted AHIMS coordinates.

Speaking on Rosemary Taplin, in 1992, the *Australian Association of Consulting Archaeologists* newsletter featured a short article titled *The Taplin Files*, which briefly highlighted some of the issues associated with site card recordings attributed to Taplin (Jordan and Bosco, 2018). The article included a quote from an archaeologist stating:

“...after tortuous investigations on Rosemary Taplin's methodology for Aboriginal site recording in the 1960s I still feel bewildered and unready to offer a key for reliable results in the hunt for a Taplin site. Except for those sites which have been independently discovered and recorded by others, I have so far failed to locate even one Taplin site in the field!” (Australian Association of Consulting Archaeologists 1992).

Likewise, the rock shelter with midden site 45-6-0976 was recorded by Taplin in the 1960s and added to the AHIMS database in 1979. The site’s AHIMS coordinates place it approximately 100 metres east of site 45-6-1152, within an area that has also been highly disturbed by the port and the former power station. The site card indicates that the midden is located below a rock overhang facing Bunnerong (possibly the Bunnerong Power Station), but very little additional information is provided. Nonetheless, it is highly likely that the AHIMS coordinates are incorrect for this site.

Finally, rock engraving site 45-6-0639 is mapped on the southern boundary of the port facilities. Reference to the site card indicates that it consists of rock engravings featuring fish, whales, and two human figures. Possibly recorded by R.H. Mathews in the 1890s and added to the AHIMS database in the 1970s, the site is described as being located on a low rocky point west of Maroubra Beach, near the cemetery, on a smooth rocky surface about twenty feet above the high-water mark. However, the mapping of the AHIMS coordinates places the site in a car park near the port revetments, suggesting that the AHIMS coordinates are incorrect.

Table 5-3 AHIMS search results

Site Type	Count	%
Middens	22	28.9
Rock engravings	20	26.3
Burials	10	13.2
Rock shelters	8	10.6
Open artefact site (i.e., isolated artefacts and artefact scatters)	6	7.9
PAD	5	6.6
Grinding grooves	2	2.6
Art sites	2	2.6

Site Type	Count	%
Quarry	1	1.3
Total	76	100

Table 5-4 AHIMS sites in the local area

AHIMS Site ID	Site name	AHIMS centroid coordinates		Site type	Location	Reference
		MGAE	MGAN			
45-6-0639	Botany Bay; Bumborah Point	335824	6239085	Rock engraving	880 metres east of the Project Area	R.H. Mathews
45-6-0976	Botany Bay	336266	6239825	Rock shelter; midden	610 metres east of the Project Area	R. Taplin
45-6-1152	Bumborah Point	336175	6239824	Rock shelter; midden	520 metres east of the Project Area	R. Taplin

5.2.2 Previous Aboriginal archaeological investigations

Existing AHIMS data indicate that relatively few contemporary Aboriginal archaeological investigations incorporating survey and/or excavation have been undertaken in the general vicinity of the Project Area, with Rich's investigation of the Yarra Point shell midden site (45-6-0292), located around 900 metres to the south-east of the Project Area, remaining one of the most informative investigations to date. For contextual purposes, the results of this and several other investigations carried out in the general vicinity of the Project Area summarised in Table 5-5.

Table 5-5 Selection of previous Aboriginal archaeological investigations in the general vicinity of the Project Area

Project	Investigation type	Distance from Project Area	Summary of investigation and results	Reference
Yarra Point recreational reserve upgrades	Survey and test excavation	c. 900 m	Archaeological investigation of a registered midden site (AHIMS #45-6-292) undertaken prior to proposed development at Yarra Point. The midden comprised a 20 m x 100 m discontinuous band of scattered and stratified shell and stone artefacts around Yarra Point. A total of 98 stone artefacts were recorded during a detailed surface recording of the site, comprising 97 flaked artefacts, most less than 2 cm long, and one flaked and ground hammerstone. Artefact density, but not composition, varied across the site. Quartz comprised the dominate raw material (85%), with smaller instances of silcrete, FGS, quartzite, indurated mudstone and ceramic. Pebble cortex was observed across 21% of artefacts. Nine shovel probes were excavated 10-20 m apart along a proposed pathway, returning a single quartz artefact. A further 12 probes were excavated 5-17 m apart, along the lower slopes in the vicinity of the exposed shell to determine the subsurface extent of the material. Only two probes returned subsurface material. Results indicated that the subsurface deposit was thin, discontinuous and located across an area no more than 60 m x 10 m. The main lens was shown to be discontinuous across 20 m x 5 m. Results indicated high levels of disturbance prior to the deposition of overlying sand. Two 50 cm x 50 cm test pits were placed where artefacts were observed in exposures. Materials recovered included shell, bone, charcoal, artefacts and European items. At least 14 shell species were recorded, with rocky reef species such as mussel dominant. Bone consisted predominately of fish (28%), with smaller instances of mammal and bird. A total of 44 stone artefacts were collected, predominately quartz. Results indicated that the site was a 'single' occupation event, likely dating from pre-contact and contact periods. The site was assessed as containing limited scientific significance due to its disturbance, but high cultural significance due to its relative rarity.	(Rich, 1986)

Project	Investigation type	Distance from Project Area	Summary of investigation and results	Reference
Hill 60 housing subdivision borrow area	Survey	c. 3 km	Comprehensive pedestrian survey undertaken of 'Hill 60' a body of sand proposed for use as a housing subdivision borrow area. One AHIMS site (45-6-1060) had previously been recorded on the northern boundary of the site, with other sites recorded nearby; however, the location of the site was disputed. No Aboriginal archaeological material was identified during the investigation and the pre-recorded site was not located (Sullivan, 1992:1). The majority of the site was assessed as disturbed, sparsely vegetated and unstable sand dune. An area to the north, however, was heavily vegetated by bitou bush and lantana, inhibiting surface visibility. Evidence of the use of the site for semi-permanent huts and tents during the 1930s was identified across the site as glass, pottery, and building materials scattered across deflated surfaces of the blowout; however, the origins of this material could not be ascertained.	(Sullivan, 1992)
Sydney Kingsford Smith Airport Third Runway	Survey	c.300 m	Pedestrian and vehicular surveys undertaken across areas potentially affected by dredging and reclamation works for the proposed third runway, including foreshore areas of Lady Robinson's Beach and northern foreshores of Towra Point. Survey coverage was estimated as 90% of the study area, with 70% ground surface visibility across the site. No archaeological sites were identified along the foreshores at Towra Beach, Towra Spit or Towra Point. These areas were described as wave-washed with extensive erosion observed. No sites were located along Lady Robinsons Beach, as predicted from the high degree of modification documented for the area. Similarly, due to the reclamation of Botany Bay for the development of Foreshore Road, no sites were expected within the northern foreshore area. Periodic inspections were recommended for the Towra Beach area in the case that erosion was observed to have increased from the dredging activities.	(Navin, 1992)

Project	Investigation type	Distance from Project Area	Summary of investigation and results	Reference
Proposed jet fuel line from Banksmeadow to Sydney Kingsford Smith Airport	Survey	c.400 m	Survey undertaken of a proposed jet fuel line alignment between Banksmeadow and Sydney Kingsford Smith Airport. The proposed alignment followed the route of an existing SMP pipeline. No intact or in situ Aboriginal sites were identified, as expected from the considerable landscape modification works previously conducted around Sydney Kingsford Smith Airport and Foreshore Drive. A number of shell features were identified along the beach front, comprising four locations of thick lenses of mixed shell species, sandstone and other materials. A large deflated shell scatter was also located behind an outlet of stormwater drains. These shell concentrations were all interpreted as the result of dredging activities and non-Aboriginal in origin.	(Jo McDonald Cultural Heritage Management Pty Ltd, 1999)
Port Botany Expansion	Survey and desktop analysis	Within	Survey and desktop analysis undertaken to determine the potential impact of land reclamation and dredging works to Aboriginal sites around Botany Bay. No Aboriginal sites were recorded within the Port Botany study area and archaeological potential was assessed as negligible. The potential for submerged Pleistocene and early-Holocene sites to have survived Holocene sea level rise was also assessed as negligible. The study also included assessment of potential impacts to former historical jetty and pier sites.	(Navin Officer Heritage Consultants, 2003)
Botany Bay 132kV Electricity Cable Project	Survey	c.50 m	Survey undertaken of a proposed electricity cable route across Botany Bay from Bunnerong to Kurnell. One Aboriginal PAD was recorded during the assessment and would be impacted by the works and test excavation was recommended. The PAD comprised an area of Kurnell foreshore from the high tide mark to Torres Street where archaeological material had potential to be buried at depth beneath roads and landscaping disturbance. Two historic heritage items (Captain Cook Drive and Prince Charles Parade) would be impacted by the project; however, the impact was assessed as minor.	(Navin Officer Heritage Consultants Pty Ltd, 2006)

Project	Investigation type	Distance from Project Area	Summary of investigation and results	Reference
Proposed Upgrade of Bunnerong Road, Matraville/La Perouse	Survey	c.300 m	Comprehensive pedestrian survey was undertaken across the entire length of the Bunnerong Road reserve proposed for extension. No Aboriginal sites were located during the survey and no subsurface archaeological potential was anticipated given the nature of previous disturbance documented within the road reserve, which had been subject to clearing and grading for the construction of the road.	(Nutley, 2010)
Kurnell Port and Berthing Facility Upgrades	Desktop assessment and site visit	c.3300 m	No Aboriginal archaeological sites or areas of archaeological potential were identified within the study area. Furthermore, the proposed works were unlikely to affect Aboriginal sites located above the high tide mark on the northern side of Kurnell Peninsula. The proposed works were, however, identified to have minor to moderate potential to impact historical sites and unexpected maritime relics located within or in the vicinity of the study area.	(Australian Museum Business Services, 2012)

5.3 Key observations

Key observations to be drawn from a review of the archaeological context of the Project Area are as follows:

- Available radiometric dates indicate that Aboriginal people have occupied the Sydney region for at least 36,000 years. However, few 'early' (i.e., late Pleistocene/ early Holocene) sites are known, with the overwhelming majority of sites recorded to date likely of mid-to-late Holocene antiquity (0-6,000 years BP)
- Rock engravings, shell middens and rock shelters dominate the Aboriginal archaeological record of the eastern Sydney peninsula
- Existing archaeological datasets for the eastern Sydney peninsula indicate a strong trend for the presence of Aboriginal sites in foreshore and swamp/lagoon margin contexts, with rock shelters and aeolian dunes comprising landform features of high Aboriginal archaeological sensitivity
- Rock shelter and engraving sites occur in association with outcrops of Hawkesbury Sandstone
- Excavated archaeofaunal assemblages from the eastern Sydney peninsula attest to a mixed or generalised economy, albeit one with a strong marine/ estuarine focus
- Excavated and surface recorded flaked stone artefact assemblages from the eastern Sydney peninsula indicate an emphasis on the procurement and reduction of quartz
- Searches of the AHIMS database indicate that there are no previously recorded Aboriginal sites located within or immediately adjacent to the Project Area.

5.4 Archaeological predictions

Taking into account the environmental and archaeological context of the Project Area, the following predictions are made regarding its Aboriginal archaeological record:

- Prior to disturbance, Aboriginal archaeological deposits within the Project Area would have consisted of shell midden and/ or open artefact deposits
- Remnant aeolian sand profiles, if preserved in full or part, may contain evidence of 'early' (i.e., Late Pleistocene/ early Holocene) Aboriginal occupation activity. However, the likelihood of these being present is negligible.

6.0 Ethnohistoric context

6.1 Introduction

Section 5.0 summarised the archaeological context of the Project Area on both a regional and local scale. This section builds on this foundation by summarising relevant ethnohistoric information for this area. As in other parts of New South Wales and Australia more broadly, non-Aboriginal people occupying the Sydney region began to document Aboriginal culture from first contact, with explorers, missionaries, settlers and the like recording their observations of Aboriginal people and/ or their material culture in letters, journals, and official reports. Many of these accounts are overtly Eurocentric in tone and the content and veracity of some is, at best, questionable. Nonetheless, taken together, they form an important source of information on Aboriginal lifeways at the time of British colonisation and can, in conjunction with available archaeological data, be used to generate working predictive models of prehistoric Aboriginal land use.

Key sources, both primary and secondary, for the languages and lifeways of the Aboriginal people occupying the Sydney region at and following British colonisation include: Attenbrow (2010b); Barrallier (1802 [1975]); Bradley (1792 [1961]); Brook & Kohen (1991); Collins (1798 [1975], 1802 [1971]; Dawes (1790a, 1790b); Flynn (1994, 1995a, 1995b); Hunter (1793 [1968]); Irish (2017); Kohen (1985, 1986, 1988, 1993); Kohen and Lampert (1987); Kohen et al. (1999); Matthews (1903); McDonald (2008); Phillip (1789 [1970], 1791[1963]); Tench (1793 [1979]); Troy (1994); White (1790 [1962]) and Worgan (1788). While a detailed review of these sources is beyond the scope of this report, salient information is summarised in the sections below.

6.2 The Gameygal (Kameygal) and the Dharawal Language

Available sources indicate that Project Area is located within the traditional country of the Gameygal (or Kameygal) clan³, who spoke the Darug (also spelt Dhaf-rook, Dharrook, Dhafook, Dharruk and Dharug) language. At the time of contact, the Gameygal are believed to have occupied the northern portion of Botany Bay, from the mouth of the Cooks River to La Perouse (Smith, 2018), with the southern portion of the bay occupied by a different named group: the Gweagal, who spoke the Dharawal, or Tharawal, language (Collins, 1798[1975:453]; Phillip 13 February 1790 [1892:309]).

Darug appears to have been spoken from the Hawkesbury River in the north, to Appin in the south, and from the coast west across the Cumberland Plain into the Blue Mountains (Attenbrow 2010: 34). Early sources (e.g., Collins 1798 [1975]; 1802 [1971]; Tench 1793 [1961]; Dawes 1790a, 1790b; Phillip in Hunter 1793 [1961]) and more recent linguistic research (e.g., Troy 1994) indicate that two distinct dialects of Darug were spoken at the time of European contact, a coastal dialect, spoken on the Sydney peninsula and the country to the north of Port Jackson, and a hinterland dialect, spoken on the Cumberland Plain from Appin in the south to the Hawkesbury River in the north (Attenbrow 2010: 34). This linguistic division is thought to correspond to a broader economic division between 'coastal' and 'hinterland' Darug-speaking peoples, with the accounts of several early observers (e.g., Bradley 1792 [1961]; Collins 1798 [1975], 1802 [1971]; Phillip 1788 in Attenbrow 2010: 63; Tench 1793 [1979]) suggestive of a 'coastal', marine-oriented subsistence economy⁴ and contrasting 'inland' economy focused on the exploitation of land mammals, plant foods and freshwater faunal resources. Notably, early sources (e.g., Barrallier 1802 [1975]; Collins 1798 [1975]; Tench 1793 [1961]) suggest that there was little contact between coastal and hinterland groups.

³ As highlighted by Attenbrow (2010b: 26), although listed as a tribe in an unpublished c.1790 manuscript, 'Gameygal' is most likely a clan name based on a variation in the spelling of Kamay, the Aboriginal name recorded for Botany Bay.

⁴ Note that available archaeological evidence suggests that the historically documented seafood bias in the diets of coastal Darug speaking peoples has been overemphasised, with excavated bone assemblages from coastal rock shelter sites (e.g., Balmoral Beach, Angophora Reserve) attesting to the importance of terrestrial and avian fauna in coastal diets.

Some idea of population size for the coastal Aboriginal groups at contact is provided by Attenbrow (2010), who suggests that the area around Port Jackson likely supported a minimum population density of 0.75 persons/ 1 sq. km (i.e., 1 person/1.3 sq. km). Attenbrow's estimate is based on Governor Phillip's own estimate of the Aboriginal population of this area, made in 1788. Phillip, reporting to Lord Sydney on 15 May 1788, estimated a total population of not "*less than one thousand five hundred*" (Phillip 1788 in Attenbrow, 2010b: 17). Attenbrow (2010b:17), citing Hunter (1793 [1968]: 62), notes that "*population densities for the hinterland (west of Parramatta) were initially assessed by the colonists as being less than those along the coast*" but urges interpretive caution given the deleterious effects of 1789 smallpox epidemic, which "*had killed many people living to the west of Rose Hill before Phillip's 1791 expedition crossed the Cumberland Plain to the Hawkesbury-Nepean River.*". More recently, Kohen (1995) has estimated a minimum overall density of around 0.5 persons per sq. km for the hinterland zone.

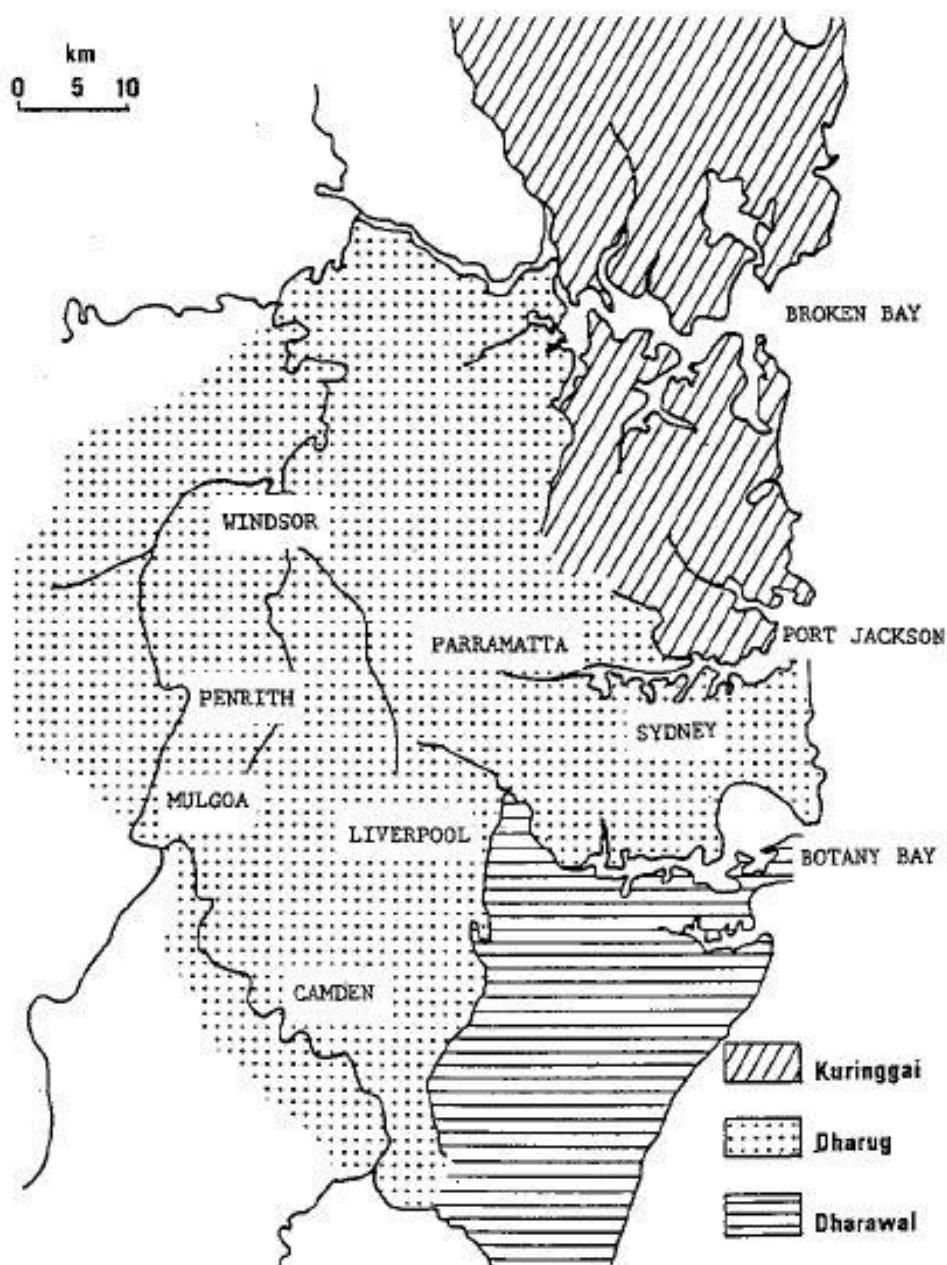


Figure 6-1 Aboriginal language group boundaries in the Sydney Region (from Kohen 1993: 241, Fig. 1)

In common with other regions of New South Wales (e.g., Attenbrow, 2010b) and Australia more broadly (Peterson, 1976), available historical records suggest that the primary units of social organisation amongst the Darug were the clan and band. Kohen and Lampert (1987) equate the term ‘clan’ with ‘band.’ However, Attenbrow (2010) draws a distinction between the two, with clans identified as local descent groups and bands, land-using groups who, though not necessarily all of the same clan⁵, camped together and cooperated daily in hunting, fishing, and gathering activities. Individual bands would have habitually occupied and exploited the resources of particular tracts of land. However, the territorial boundaries of each band would have been permeable or elastic in the sense of complex kinship ties facilitating inter-band territorial movements and the reciprocal use and/ or exchange of resources. Early accounts (e.g., Collins 1798 [1975:453]; Tench 1793 [1979:292]) indicate that clan names were derived from the country on which the members of the clan lived.

The size of the individual bands occupying the coastal and hinterland zones of the Sydney region at contact was no doubt activity and season dependent. However, an upper limit of around 50 individuals, consisting of several nuclear families, has been suggested (Kohen, 1988: 239). Individual band sizes notwithstanding, much larger groups of Aboriginal people, numbering in the hundreds, are known to have come together for events such as corroborees, ritual combats, and feasts (Attenbrow 2010b; Kohen et al. 1999). Unlike many Australian Aboriginal groups, social organisation amongst the Darug did not comprise a class system based on moieties or sections but rather was based on clan membership attained through patrilineal descent (Attenbrow, 2010b: 57; Kohen, 1993: 35). Totemic affiliations were inherited from a person’s father and, along with clan membership, were the basis upon which marriages were arranged and initiations carried out.

Available historical records indicate that a wide range of marine and freshwater fauna were exploited by Darug-speaking peoples for food and other resources (for a detailed discussion see Attenbrow, 2010: 62-84). Along the coast, an emphasis on the exploitation of marine resources, principally fish and shellfish, is attested in the writings of several early observers (e.g., Bradley, 1792 [1969: 133]; Collins, 1798 [1975:456, 461, 495]; Phillip 1788 in Attenbrow, 2010b: 63; Tench, 1793: 125, 195 [1979]: 233, 287). Further inland, historical records suggest an emphasis on the hunting of land mammals (e.g., Barrallier, 1802 [1975:2 n4]; Collins 1798 [1975:456]; Tench 1793: 121 [1979:230]), with kangaroos, wallabies, possums, gliders, fruit bats (i.e., flying foxes), dingos, koalas, and wombats variously reported as having been either hunted and/ or eaten (Attenbrow, 2010b: 71). Possums, in particular, appear to have been a major food source in the hinterland, with a number of early observers remarking on the tree climbing skills of the ‘woods people’ and detailing procurement techniques (e.g., Hunter, 1793 [1968]; Tench, 1793 [1979]; Collins, 1798 [1975]; Barrallier, 1802 [1975]). Freshwater fish, shellfish, and eels, as well as platypus, are also known to have been exploited by hinterland groups (e.g., Barrallier, 1802 [1975: 2]; Collins, 1798 [1975: 461-63], 1802 [1971: 321-22]; Phillip in Hunter, 1793 [1968: 523]; Tench, 1793 [1979: 230]), as are various types of birds.

Compared with their faunal counterparts, the plant food resources of coastal Aboriginal peoples are poorly represented in the writings of early colonial observers. Nonetheless, available descriptions do suggest that plants formed a regular part of the diets of both coastal and hinterland groups (see Attenbrow, 2010b: 77-78). Along the coast, a “vegetable catalogue” consisting of “*a few berries, the yam and fern root, the flowers of the different Banksia, and at times some honey*” is reported by Collins (1798 [1975:462-63]). Further inland, along the Hawkesbury-Nepean River, yams appear to have been a particularly important food item (see, for example, Hunter 1793 [1968: 153]).

A wide range of hunting and gathering ‘gear’ was employed by Darug speaking peoples, with distinctive repertoires for men and women (McDonald, 2008: 24). Men’s gear included several different forms of spears (variously barbed), spear throwers, clubs, ‘swords’, boomerangs, shields, and hafted stone hatchets known as mogo. Women’s toolkits, in contrast, included fishing hooks, lines and sinkers, digging sticks, and various containers (shell and wood). Net bags made from plaited wood fibre appear to have been used both men and women (see Attenbrow, 2010b: 91). Bark canoes were also widely used (Attenbrow, 2010b: 87).

⁵ Some individuals may have been related through marriage.

Two principal forms of shelter appear to have been utilised by Darug speaking peoples at the time of European contact: rock shelters and small huts built from sheets of bark, branches and bushes with such huts *“formed of pieces of bark from several trees put together in the form of an oven with an entrance, and large enough to hold six or eight people”* (Collins, 1798 [1975: 460]). Regarding settlement duration, as Attenbrow (2010b) has observed, *“there is little direct historical evidence for the length of time people stayed at any one campsite (be it a rockshelter or bark hut), how often they moved, or what motivated them to move to another campsite.”* Kohen and Lampert (1987), for their part, have argued that *“some bands probably lived at one campsite for months of each year and regularly returned to it.”* However, this argument is not universally accepted (e.g., Attenbrow, 2010b; McDonald, 2008).

Evidence for ceremonial or ritual behaviour amongst Darug -speaking peoples can be found in the writings of a number of early observers, with documented ‘ceremonial’ activities including corroborees, male initiation ceremonies, ritual combats, and various burial, body adornment, and personal decoration practices (Attenbrow 2010b: 126-42). While available colonial records provide only scant information on the belief systems of Dharawal-speaking peoples, reference to the 19th century writings of people such as L.E Threlkeld, A.W Howitt, R.H Matthews, W. Ridley and W.J Enright, suggests that spiritual authority amongst Dharawal clans was likely vested in a number of ancestral beings, with Baiame or Daramulan – a supreme creative being – a central figure (Attenbrow 2010b: 127-128).

6.3 First and post-contact Aboriginal history

6.3.1 Earliest observations

When Lieutenant James Cook sailed the HMS *Endeavour* into Botany Bay on 29 April 1770 and anchored opposite a “small village” on its southern shores, he and his crew observed that the land was already inhabited by Aboriginal people. On that first day, Cook landed near Silver Beach, on the northern side of the Kurnell peninsula, within Botany Bay and made first contact with Aboriginal people while attempting to go ashore. Cook reports, two Aboriginal men who “seemed resolved to defend their coast to the uttermost” brandished long spears at them as they attempted to make landfall. After gifting some “nails, beads, and other trifles” in an attempt to parley, the two men continued to oppose the landing. Cook then fired a musket loaded with small shot between them. When they persisted in their opposition, he ordered another shot fired which partially struck the eldest man in the leg to no effect. When this had little effect, a “third musket with small shot was then fired at them, upon which one of them threw another lance, and both immediately ran away” allowing Cook and his men to land (Cook, 1821). In all, Cook and his crew spent eight days (29 April – 6 May 1770) exploring the bay and countryside. Observations made during this time provide the earliest documented descriptions of the lives and economies of Aboriginal people in the Sydney region. Observations from the HMS *Endeavour* voyage and subsequent European explorations of the Botany Bay area, likely relate primarily to the Gameygal and Gweagal clans.

Cook and naturalist Joseph Banks made a number of observations of Aboriginal people in Botany Bay. They noted the occupants lived in small, scattered groups along the waterfront rather than in large settlements. Occupation ‘sites’ were observed at various locations, including open sites with huts made from bark or other natural materials. Cook also described their fishing practices, which involved using spears, hooks, and lines to catch fish, while shellfish such as oysters, mussels, and cockles were collected from the sand and mud, sometimes directly from canoes. The canoes, made from a single piece of bark with the ends tied up and the middle kept open by wooden supports, were commonly seen on the bay, with trees exhibiting scars from their construction also observed. In addition to fishing tools, Cook and his crew documented other elements of Aboriginal material culture, including shields, spear throwers, and various wooden implements, with a number of spears collected by the crew. Cook also observed trees, particularly palms, with notches indicating they had been climbed, though he did not specify what resources were being gathered from them. At least two shell middens containing remnants of fires and shells, with one located near the shore were observed (Cook, 1821).

Despite numerous efforts to approach them, local Aboriginal people mostly avoided direct contact with Cook and his men. On multiple occasions groups of men would approach to a safe distance, but when attempts were made to communicate, they would disperse. Average group size he recorded was about 6-8 individuals, with individual observations of group size ranging from one to 22 individuals. Women were observed fishing from bark canoes with line and shell hooks, and often fires were prepared on canoes to cook the catch immediately. Men used wooden spears barbed with sharp fish bones to catch fish. Mussels, cockles, and, in some cases, boiled fish were used as bait. Among the other tools observed were wooden shields, spear throwers, and 'darts'—slender wooden spears. Division of labour by age is also alluded to, with two accounts describing groups of elderly men and women with children while other adults fished in canoes nearby (Cook, 1821).

By the time Cook and his crew departed on 6 May 1770, they had made no meaningful contact or exchanges with the local people, and their presence had been largely met with avoidance. After eight days, the HMS *Endeavour* left Botany Bay with a large number of natural specimens and descriptions of the wealth and diversity of the natural environment. Upon the *Endeavour's* return to Britain, Cook's glowing account influenced the selection of Botany Bay as the site of the future penal colony (St George Historical Society, 1971:3). Following the arrival of the First Fleet between 18 and 20 January 1788, however, Captain Arthur Phillip found the bay unsuitable for the settlement, citing difficult access due to shallow waters, marshy conditions, lack of shelter and limited freshwater sources. Botany Bay was subsequently abandoned, and the colony was established at Sydney Cove to the north, in the deeper harbour, which would become known as Port Jackson.

6.3.2 Adaptation to European settlement

The prevailing image of Botany Bay as an inhospitable, marshy landscape, combined with limited access across the Cooks River, discouraged early Europeans from attempting to settle or acquire land in the area. As Tench (1793: Chapter V) describes after a visit to the Bay:

We were unanimously of opinion, that had not the nautical part of Mr. Cook's description, in which we include the latitude and longitude of the bay, been so accurately laid down, there would exist the utmost reason to believe, that those who have described the contiguous country, had never seen it. On the sides of the harbour, a line of sea coast more than thirty miles long, we did not find 200 acres which could be cultivated (Tench, 1793)

European presence in the Botany Bay region during the early years of the colony was limited to short to expeditions by marines to see if vessels may have arrived there, as well as forays for hunting and fishing expeditions, timber getting, stock grazing, and naturalist excursions. Shell deposits, likely including some Aboriginal midden sites, were also excavated from the foreshores of the bay for the production of lime (Tench, 1793).

Little is known about the Gweagal people in the years immediately following European settlement, a situation at least partly attributable to the 1789 smallpox epidemic, which estimated to have wiped out well over half of Sydney's Aboriginal population. Survivors of the disease subsequently regrouped from across the region, requiring the restructure of kinship systems, customs and clan boundaries. Despite the devastation wrought by smallpox, European accounts from the early 1800s indicate the presence of a relatively large population of Aboriginal people occupying the gullies north of Botany Bay, as well as the foreshores of the bay (Rich, 1986:42). The continued presence of Aboriginal people in and around the bay around this period is also indicated by early European paintings (refer to Figure 6-2).

From 1820, land surrounding Botany Bay, including the Kurnell Peninsula began to be opened for land grants with land used for grazing, fishing, market gardening, boat building, wool scours, tanneries, the production of lime and salt. As European settlement pressed closer, Aboriginal access to traditional hunting and fishing grounds was increasingly restricted. In response, many Aboriginal people adapted to the competition for land and resources – either moving to new areas, or supplementing traditional lifestyles through learning English, trading fish at Sydney markets, and utilising their knowledge of the local environment to act as guides for European hunting, fishing and tourism parties (Irish, 2017:35).

In 1830, land along the northern shores of Botany Bay and La Perouse was designated as a Government Reserve (Heritage NSW Department of Premier & Cabinet, 2024). While small pioneer European fishing villages developed in the region in the succeeding years, greater numbers of Aboriginal people moved onto the Reserve from surrounding areas, and by 1850, La Perouse was known as a 'Blacks' camp (Heritage NSW Department of Premier & Cabinet, 2024).



Figure 6-2 Excerpt of 'View of across Botany Bay from the mouth of the Cooks River in 1825', by J Lycett, 1825 (Source: National Library of Australia/nla.obj-135701715)

6.3.3 Aboriginal La Perouse: 1870s to 1930s

By the 1870s, La Perouse was increasingly known as an Aboriginal community. Individuals who had left following the early years of European settlement, returned with their families, and others from the South Coast came to settle in the area – many seeking access to Sydney for rations and employment after being forced off their lands by the emergent dairy farming industry. By the 1880s, 50 Aboriginal people reportedly lived in the area – 35 living in the reserve at La Perouse and 15 further west, at Botany Bay (Heritage NSW Department of Premier & Cabinet, 2020). A small Anglican mission was established at La Perouse, providing food, shelter, basic education, and religious instruction to the community.

In 1882, pressure was mounting for the government to take on Aboriginal affairs, and Sir Henry Parkes appointed George Thornton 'Protector of Aborigines.' Thornton organised for a census of Aboriginal people and sought the removal of Aboriginal people from urban areas across Sydney; however, he lobbied for the La Perouse community to remain as they were seen as 'economically viable'. The camp at La Perouse, reportedly comprising five men and their families, was provided with additional huts by the government (Heritage NSW Department of Premier & Cabinet, 2020).

As the 'Aborigines Protection Board' replaced the 'Protector' role in 1883, government policies on Aboriginal people took on more isolationist and protectionist measures. 'Reserves for Aborigines' were established to enforce segregation of Aboriginal and 'white' societies (Heritage NSW Department of Premier & Cabinet, 2020). In 1885, 2.5 hectares were set aside at La Perouse for this purpose. From 1886, multiple attempts were made to evict Aboriginal people from camps such as at Rushcutters Bay and send them to La Perouse. However, many of these attempts failed as Aboriginal people instead inhabited local public parks and reserves.

By 1895, the La Perouse reserve was enclosed by a fence and permission was required for people to enter or leave the site up until the 1940s (Heritage NSW Department of Premier & Cabinet, 2020). In 1897, the Aborigines Protection Board tried relocating the La Perouse reserve to Wallaga Lake but met with opposition from missionaries and the NSW Department of Lands.

With the construction of the tram line to La Perouse in 1902, increasing numbers of Sydney tourists began to visit the area and the Aboriginal camp. La Perouse residents made and sold souvenirs for the day-trippers, including popular shell artwork and boomerangs (Heritage NSW Department of Premier & Cabinet, 2020).

Further attempts were made by Randwick Council to close the reserve in the 1920s; however, the La Perouse residents petitioned for their right to stay. The petition, signed by 53 residents was published in the *Sydney Morning Herald*, and stated,

“We, the undersigned aborigines (sic) of the La Perouse reserve, emphatically protest against our removal to any place. This is our heritage bestowed upon us: in these circumstances we feel justified in refusing to leave.” (‘La Perouse Aborigines protest against removal’, *Sydney Morning Herald*, 1928 in Heritage NSW Department of Premier & Cabinet, 2020b).

From the early years of the Great Depression up until the 1950s, a number of shanty towns were established in the area: a European camp at Botany Bay called ‘Hill 60,’ another at La Perouse called ‘Happy Valley’ and an Aboriginal camp at La Perouse called ‘Frog Hollow.’ Shelters were constructed of corrugated iron and white-washed hessian, with earth floors. Shanty town residents intermingled and intermarried with La Perouse reserve residents and their children attended the local missionary.

6.3.4 Some notable local Aboriginal identities

Biddy Giles (c.1810-1888)

Biddy Giles was a Gweagal woman and well-known tour guide from the 1860s. Originally from Botany, Biddy (born ‘Bi-yar-rung’) married young to Gweagal man, Comman/ ‘King Kooma’, before moving to Five Islands (Illawarra) Country, marrying Paddy Burragalang (Paddy Davis) and having two daughters (Goodall and Cadzow, 2014).

After Paddy died in the 1850s, Biddy moved to Mill Creek on the Georges River, with Englishman, Billy Giles. When a local 120-acre farming estate was abandoned by James Cuthill, Biddy and Billy Giles took over the farm and the two roomed, slab farmhouse, sustaining themselves with a small herd of goats and an orchard of quinces (Irish, 2017:77).

During this time, Biddy and Billy Giles ran guided tours, hunting and fishing parties for tourists through the bushland south of the Georges River. Biddy’s detailed knowledge of the landscape and the Dharawal and English names for all the plants and animals they encountered earned rave reviews from her clients. *“Some of these travellers wrote accounts of their trips with Biddy, marvelling at her unfailing ability to find fish, her control of her hunting dogs and the skill with which she could rustle up a delicious meal from local produce”* (Goodall and Cadzow, 2014). Irish (Irish, 2017:78) notes that these trips enabled Biddy to continue traditional practices and disseminate cultural knowledge. Her clientele also included key figures in Aboriginal affairs, including George Hill of the Sydney Aborigines Committee and James Oatley, a Sydney-born Aboriginal sympathiser (Irish, 2017:77). Biddy maintained links with Aboriginal groups across Sydney and visited camps at Botany Bay and Kogarah Bay (Goodall and Cadzow, 2014).

Johnny Malone (c.1820-1880)

Johnny (Johnnie) Malone was a descendent of the Botany Bay Aboriginal community from the Cooks River, and resident tour guide at the Sir Joseph Banks Hotel following the death of Boatswain Maroot. His parents were a Botany Bay woman (potentially the sister of Boatswain Maroot) and ex-convict James (Jemmy) Malone, who owned a 30-acre plot of land on the southern side of Weeney Bay. Growing up around Botany Bay, Johnny had intimate knowledge of the area and may have assisted Boatswain Maroot, on one of his many guided tours. In 1858, Johnny was employed by Austrian scientist, Karl Scherzer and Australian Museum ethnographer, Edward Smith Hill to help them locate an Aboriginal burial site. Following this, he was contacted by the new proprietors of the Sir Joseph Banks Hotel to serve as their local tour guide (Irish, 2017:76).

Johnny and his Illawarra wife, Lizzie, built and occupied a hut in the Botany Bay Reserve and ran guided tours with their growing family. Their tours gained such popularity that clients actively sought their services when visiting the area, whether affiliated with the Sir Joseph Banks Hotel or not (Irish, 2017:76).

Emma ‘Queen’/ ‘Granny’ Timbery (1842-1916)

Emma ‘Queen’/ ‘Granny’ Timbery (Timbury) was a notable member of the La Perouse reserve, Christian advocate, and popular shellwork artist. She was born in Liverpool, NSW to farmer Hubert Walden and Dharawal mother, Betsy. In 1864, she married Illawarra man, George (‘Trimmer’) Timbery, and had eleven children. George was a fisherman who frequented Botany Bay and the Illawarra. By 1882, the family lived at the La Perouse reserve, and Emma earned additional income through selling shell artwork. Her talents at the craft were recognised, and her artwork was sold at the Sydney Royal Easter Show and in 1910, was included in an Australian manufacturers’ exhibition in London (Nugent, 2005).

Emma worked closely with the missionaries at the La Perouse reserve and learned to read a small amount of English. She became vice-president of the La Perouse Aborigine’s Christian Endeavour Society in 1895. As community matriarch of the La Perouse reserve, Emma became known as ‘Queen’ or ‘Granny’ Timbery (Heritage NSW Department of Premier & Cabinet, 2020).

Emma died on 26 November 1916 and was buried in the Botany cemetery during a ceremony attended by a large crowd of mourners. In 1986, three fig trees planted at the La Perouse reserve were dedicated in her memory. Members of the Timbery family still live at La Perouse and can trace their ancestry back to pre-colonial times (Heritage NSW Department of Premier & Cabinet, 2020).

7.0 Visual inspections

Visual inspections of the Project Area were completed on 25 March 2025 by NSW Ports representatives and LPLALC representatives (Chris Ingrey and Paul Ryan) and on 2 April 2025 by AECOM Principal Heritage Specialist Geordie Oakes with La Pouse LALC site officer Steven Ella.

The objectives of the inspections were to:

- Identify evidence of past Aboriginal occupation within the Project Area
- Ground truth, as far as feasible, levels of past ground disturbance and reclamation within the Project Area (as evidenced by historical aerial photography)
- Provide an 'on Country' forum for the LALC to discuss the Project and to share cultural values, as appropriate.

No evidence of past Aboriginal occupation was observed during the visual inspection, nor were specific cultural values communicated by community members. It was noted by LPLALC representatives that there was limited potential for archaeological remains to be present within the Project Area due to development in the area, primarily dredging associated with construction of the port. These activities, it was noted, had resulted in cultural fishing grounds being lost.

Further, it was noted during the visual inspection that the Project Area consists of a highly modified/built-up landscape resulting from reclamation. Consistent with existing desktop data sources, observations made during the visual inspection suggest that the land and waters of this area are of low Aboriginal archaeological sensitivity.



Plate 1 View south of Hutchinson Port (Source: AECOM, 2025).



Plate 2 View southwest of southern revetment wall (Source: AECOM, 2025).

8.0 Significance assessment

8.1 Principles of assessment

Heritage sites hold value for different communities in a variety of different ways. All sites are not equally significant and thus not equally worthy of conservation and management (Pearson & Sullivan, 1995: 17). One of the primary responsibilities of cultural heritage practitioners, therefore, is to determine which sites are worthy of preservation and management (and why) and, conversely, which are not (and why) (Smith & Burke, 2007: 227). This process is known as the assessment of cultural significance and, as highlighted by Pearson and Sullivan (1995: 127), incorporates two interrelated and interdependent components. The first involves identifying, through documentary, physical, or oral evidence, the elements that make a heritage site significant, as well as the type(s) of significance it manifests. The second involves determining the degree of value that the site holds for society (i.e. its cultural significance) (Pearson & Sullivan, 1995: 126).

In Australia, the primary guide to the assessment of cultural significance is the Australian ICOMOS Charter for Places of Cultural Significance (2013), informally known as The Burra Charter. This defines cultural significance as the “*aesthetic, historic, scientific, social or spiritual value for past, present or future generations*” of a site or place (ICOMOS Australia, 2013: 2). Under the Burra Charter model, the cultural significance of a heritage site or place is assessed in terms of its aesthetic, historic, scientific, social, and spiritual values, none of which are mutually exclusive (refer to Table 8-1). Establishing cultural significance under the Burra Charter model involves assessing all information relevant to an understanding of the site and its fabric (i.e., its physical make-up). The assessment of cultural significance and the preparation of a statement of cultural significance are critical prerequisites to making decisions about the management of heritage site or place.

Table 8-1 Values relevant to determining cultural significance, as defined by The Burra Charter

Value	Definition
Aesthetic	“Aesthetic value refers to the sensory and perceptual experience of a place—that is, how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals” (Australia ICOMOS, 2013: 3)
Historic	“Historic value is intended to encompass all aspects of history. A place may have historic value because it has influenced, or has been influenced by, an historic event, phase, movement or activity, person or group of people. It may be the site of an important event. For any place the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of such change or absence of evidence” (Australia ICOMOS, 2013: 3)
Scientific	“Scientific value refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important information about the place itself or a type or class of place or to address important research questions” (Australia ICOMOS, 2013: 4)
Social	“Social value refers to the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them” (Australia ICOMOS, 2013: 4)
Spiritual	“Spiritual value refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations, and be expressed through cultural practices and related places” (Australia ICOMOS, 2013: 4)

8.2 Scientific values

Scientific value or significance refers to the importance of a place in terms of its rarity, representativeness, and the extent to which it may contribute further information (i.e. its research potential) (OEH, 2011: 9).

8.2.1 Rarity and representativeness

Rarity and representativeness are related concepts. Rarity refers to the relative uniqueness of a site within its local and regional context. The scientific significance of a site is assessed as higher if it is unique or rare within either context. Conversely, it is of lower significance if it is common in one or both. The concept of representativeness, meanwhile, refers to the question of whether a site is “*a good example of its type, illustrating clearly the attributes of its significance*” (Burke & Smith 2004: 247). Representativeness is an important criterion, as one of the primary goals of cultural heritage management is to preserve for future generations a representative sample of all archaeological site types in their full range of environmental contexts.

8.2.2 Research potential

Research potential can be defined as the potential of an archaeological site to address what Bowdler (1981: 129) has referred to as “*timely and specific research questions*.” These questions may relate to any number of issues concerning past human lifeways and environments and, as suggested by Bowdler’s quote, would inevitably reflect current trends or problems in academic research (Burke & Smith, 2004: 249). For their part, Bowdler and Bickford (1984: 23-4) suggest that the research potential of an archaeological site can be determined by answering the following questions:

- Can the site contribute knowledge which no other resource can?
- Can the site contribute knowledge which no other such site can?
- Is this knowledge relevant to general questions about human history or other substantive subjects?

Several criteria can be used to assess the research potential of an archaeological site. Particularly important in the context of Aboriginal archaeology are the intactness or integrity of the site in question, its complexity and its potential for archaeological deposit (NPWS, 1997: 7). The connectedness of the site to other sites or natural landscape features may also be relevant, as may its educational potential and aesthetic qualities.

Integrity refers to the extent to which a site has been disturbed by natural and/ or anthropogenic phenomena and includes both the state of preservation of particular remains (e.g., animal bones, plant remains) and, where applicable, stratigraphic integrity. Assessments of archaeological integrity are predicated on the notion that undisturbed or minimally disturbed sites are likely to yield higher quality archaeological and/ or environmental data than those whose integrity has been significantly compromised by natural and/ or anthropogenic phenomena. Establishing levels of preservation or integrity in the context of a surface survey is difficult. Nonetheless, useful rating schemes are available for open artefact sites (Coutts & Witter, 1977: 34) and scarred trees (Long, 2003).

The *complexity* of a site refers primarily to the nature or character of the artefactual materials or features that constitute it but also includes site structure (e.g., the physical size of the site, spatial patterning in observed cultural materials). In the case of open artefact sites, the principal criteria used to assess complexity are the site’s size (i.e., number of artefacts and/ or spatial extent), the presence, range and frequency of artefact and raw material types, and the presence of features such as hearths.

Potential for archaeological deposit refers to the potential of a site to contain subsurface archaeological evidence which may, through controlled excavation and analysis, assist in answering questions that are of contemporary archaeological interest. Assessing subsurface potential in the absence of subsurface investigation is difficult. Nonetheless, consideration of a range of factors, including the integrity of the site, the complexity of extant surface evidence, local geomorphic conditions (as established through surface observations and documentary research) and the results of previous archaeological excavations in the area, help inform assessment of this criterion.

Connectedness concerns the relationship between archaeological sites within a given area and may be expressed through a combination of factors such as site location, type and contents. It may, for example, be possible to establish a connection between a stone quarry and discarded edge-ground hatchet head found nearby. Demonstrating connectedness archaeologically, however, is far from straightforward, especially when dealing with surface evidence alone. Ultimately, this difficulty rests with the need to demonstrate contemporaneity between sites that may have been created hundreds, if not thousands, of years apart. As Shiner (2008: 13) has observed with respect to surface sites, “*much of the surface archaeological record documents the accumulation of materials from multiple behavioural episodes occurring over long periods of discontinuous time.*” Contemporaneity, then, needs to be demonstrated, not assumed.

8.2.3 Identification process for the current assessment

Information on the scientific values of the Project Area (i.e., with respect to Aboriginal cultural heritage) has been obtained through a review of existing environmental (Section 4.0), archaeological (Section 5.0), and ethnohistorical data (Section 6.0) for the Project Area (Section 7.0).

8.2.4 Identified scientific values

A review of background information, site inspections, and stakeholder consultations did not identify Aboriginal scientific values.

8.3 Cultural values

Social or cultural value refers to the spiritual, traditional, historic, and contemporary associations and attachments a place or area has for Aboriginal people and can only be identified through consultation with Aboriginal people (OEH, 2011: 8). RAPs consulted for the current assessment have identified the following social or cultural values for the Project Area:

- In pre- and early-post European settlement times, sand dunes within and surrounding the Project Area would have been prime locations for campsites, offering a rich suite of economic resources and facilitating intensive occupation over thousands of years
- The Port Botany area encompassing the Project Area is highly significant and sensitive to Aboriginal people. Port Botany would have provided fish, shellfish and crustaceans and wetlands ducks, swans and reeds, shell middens, kangaroos and emus were common along the shoreline. Creeks and springs around Port Botany provided freshwater
- The Project Area would have been part of cultural fishing grounds that have been lost due to historical land disturbance activities.

8.4 Historical values

Historic value refers to the associations that a place has with a historically important person, event, phase or activity in an Aboriginal community (OEH, 2011: 9). Historic values can but would not necessarily be represented by physical evidence. An understanding of the historic values of the Project Area has been established through a combination of documentary research and consultation with RAPs.

Together with verbal advice from RAPs, available historical reference materials indicate that the historical values of the broader Project Area rest with its:

- Association with Captain Cook’s landing near Silver Beach on the Kurnell Peninsula in 1770 aboard HMS Endeavour, across the bay from the Project Area. He observed that the land was inhabited by Aboriginal people and made first contact
- Association with Captain Arthur Phillip’s landing at Yarra Bay on the 18th of January 1788, with Phillip and his crew reportedly directed to Bunnerong Creek for drinking water by a group of six Aboriginal men (Rich, 1986: 41; see also Tench, 1799 [1789-1793]: 35 in Dallas & Tuck, 2005: 73)
- Proximity to the ten-acre parcel of land leased to prominent post-contact Kameygal man Boatswain Maroot in 1832.

8.5 Aesthetic values

Aesthetic value refers to the sensory, scenic, architectural and creative aspects of a place and is manifested through a range of physical and non-physical attributes (OEH, 2011: 9). Aesthetic values are not inherent in places but rather rest with peoples' sensory and emotional responses to them. Accordingly, radical variation in responses, both within and between social and cultural groups, is to be expected (NSW NPWS, 1997: 29). *Protecting Local Heritage Places: A National Guide for Local Government and Communities* (2009:43) provides the following questions to assist individuals and groups in determining the aesthetic values of heritage places:

- *Does the place have natural or cultural features which are inspirational or evoke strong feelings or special meanings?*
- *What are those features, and to what extent are they evocative?*
- *Is the place a distinctive feature that is a prominent visual landmark?*
- *Does the place evoke awe from its grandeur of scale? To what extent is this important?*
- *Does the place evoke a strong sense of age, history or time depth? How does it do this, and to what extent?*
- *Is the place symbolic for its aesthetic qualities? Has it been represented in art, poetry, photography, literature, folk-art, folklore mythology or other imagery?*
- *Does the place have outstanding composition qualities involving any combinations of colour, form, texture, detail, movement, unity, sounds, scents, spatial definition and so on? To what extent is this important?*

As described in Section 4.0, historical land use activities have resulted in radical changes to the natural environment of the Project Area, which currently bears little, if any, resemblance to its pre- and early post-European settlement form. Accordingly, it is assessed as retaining low aesthetic value.

8.6 Consolidated statement of significance

Botany Bay is considered highly significant to Aboriginal people for cultural and archaeological reasons. Archaeological data and cultural information indicate that Aboriginal people have occupied the bay for thousands of years prior to European contact making it important to contemporary Aboriginal people. Silver Beach, across the bay from the Project Area within the Kamay Botany Bay National Park, is the place where the Gweagal people first encountered Europeans in 1770. As such, it is a highly significant cultural landmark. Moreover, the bay holds historic value for its association with Captain Arthur Phillip's landing at Yarra Bay on 18 January 1788, with Phillip and his crew reportedly directed to Bunnerong Creek for drinking water by a group of six Aboriginal men (Rich, 1986: 41; see also Tench, 1979 [1789-1793]: 35 in Dallas & Tuck, 2005: 73).

Historical land use activities have resulted in radical changes to the natural topography of the Project Area and northern part of the bay's coastline. Available reference materials indicate that land in this area featured a coastal environment consisting of sandy beaches, freshwater creeks, tidal flats, salt marshes, and mangrove forests, with the open waters of the bay separated from the shoreline by a tidal flat approximately 260 metres wide. The pre- and early-post European settlement landscape context of the Project Area and surrounds suggests that this area would have represented a prime location for Aboriginal occupation over a long period of time, with several contributing factors identifiable:

- Ready access to drinking water from local creeks including Bunnerong Creek which discharges into the bay near the Project Area, and the Mill Stream to the north-east
- Proximity to the bay and the marine resources that would have been available from this area
- Ready access to surrounding freshwater lagoon systems and the associated food resources
- Soft, sandy soils suitable for camping.

Historical land use activities within the Project Area are expected to have destroyed or severely disturbed Aboriginal archaeological deposits that may have been present prior to the development of the port. Currently, the potential for Aboriginal archaeological materials to be present is assessed as low.

9.0 Impact assessment

9.1 Construction and operation of the Project

The Project would involve extending the southern side of the Brotherson Dock quayline by approximately 314 metres through land reclamation, which would include dredging works within Brotherson Dock (to a depth of up to ~5 m below the current bed profile) to source material for the reclamation.

No Aboriginal archaeological objects or sites were identified during the review of background information, including an AHIMS search, or during the visual inspection. Furthermore, as part of the review of historical background and the visual inspection, it was noted that the Project Area consists of a highly modified/ built-up landscape resulting from land reclamation. Based on these assessments, the Project Area is considered to be of low Aboriginal archaeological sensitivity. As such, no impacts to Aboriginal heritage values are anticipated from the Project.

9.2 Cumulative impacts

The Project is not anticipated to impact Aboriginal heritage values, and therefore does not raise potential cumulative impacts with other developments in relation to Aboriginal heritage. This would include in relation to those developments screened as part of the cumulative impact assessment considered in Chapter 18 (Cumulative and facilitated impacts) of the EIS.

9.3 Facilitated impacts

Construction and operation of the facilitated development would be generally limited to works within the extended quayline and wharf area delivered by the Project. For similar reasons outlined above regarding the construction and operation of the Project, the facilitated development is also not anticipated to impact Aboriginal heritage values.

10.0 Mitigation and management measures

Although the Project is not expected to impact Aboriginal heritage values, there remains a very low residual risk of encountering previously unrecorded Aboriginal objects. This risk is considered minimal and would primarily be associated with dredging and other ground-disturbing activities during construction. To address this residual risk, it is recommended that the management measures outlined below be incorporated into a Construction Environmental Management Plan (CEMP) prepared for the Project.

10.1 Management recommendations

10.1.1 Management of unanticipated Aboriginal objects

An Unexpected Aboriginal Heritage Finds Procedure should be included in the CEMP to cover the unanticipated discovery, at any point during the construction of the Project, of Aboriginal objects (as defined by the NP&W Act). Management action(s) for unexpected finds would vary according to the type of evidence identified, its significance (both scientific and cultural) and the nature of potential impacts.

10.1.2 Management of human skeletal remains

In the event that potential human skeletal remains are identified at any point during the life Project, the following standard procedure (NSW Police Force 2015; NSW Health 2013) should be followed:

- All work in the vicinity of the remains would cease immediately
- The location would be cordoned off – work can continue outside of this area as long as there is no risk of interference to the remains or the assessment of the remains
- Where it is reasonably obvious from the remains that they are human, the Project Manager (or a delegate) would inform the NSW Police by telephone (prior to seeking advice from a forensic specialist)
- Where uncertainty over the origin (i.e., human or non-human) of the remains exists, a physical or forensic anthropologist should be commissioned to inspect the exposed remains in situ and make a determination of origin, ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historic or modern)
- If the remains are identified as modern and human, notify NSW Police
- If the remains are identified as pre-contact or historic Aboriginal, notify Heritage NSW using their Environment Line (131 555)
- If the remains are identified as historic (non-Aboriginal), notify the NSW Heritage Division.

An Aboriginal community representative must be present where it is reasonably suspected burials, or human remains may be encountered. If human remains are unexpectedly encountered and they are thought to be Aboriginal, the Aboriginal community must be notified immediately.

Recording of Aboriginal ancestral remains must be undertaken by, or be conducted under the direct supervision of, a specialist physical anthropologist or other suitably qualified person.

Archaeological reporting of Aboriginal ancestral remains must be undertaken by, or reviewed by, a specialist physical anthropologist or other suitably qualified person, with the intent of using respectful and appropriate language and treating the ancestral remains as the remains of Aboriginal people rather than as scientific specimens.

10.1.3 Aboriginal cultural heritage awareness

NSW Ports should ensure that the Project's standard environmental site induction includes an Aboriginal heritage component. At a minimum, this would outline current protocols and responsibilities for the management of Aboriginal cultural heritage within the Project Area and provide an overview of the diagnostic features of potential Aboriginal site types/objects.

10.1.4 Consultation Protocols

Provisions regarding appropriate consultation protocols with RAPs should be incorporated into the CEMP. Contact details and preferred contact methods for each RAP, as well other relevant stakeholders, should be specified.

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Annexure A

RAP consultation log

Annexure A RAP consultation log

Date	Stakeholder Group	Stakeholder Representative	Correspondence/Comments	AECOM Response
29/01/2025	Agency Letters Sent Out			
7/02/2025	Bayside Council	Shanon Bateman	Suggested contacting LPLALC and the Gujaga Foundation	None required
4/02/2025	Randwick Council	Samira Abbasalipour	Suggested contacting LPLALC	None required
31/01/2025	Heritage NSW	Barry Gunther	Replied with the HNSW List	None required
29/01/2025	La Perouse LALC		No response	
30/01/2025	Office of the Registrar	Rachel Rewiri	Noted that the Kamay National Park and Towra Reserve would be registered soon. Also suggested contact LPLALC	None required
29/01/2025	NNTT		No response	
29/01/2025	NTSCORP Limited		No response	
12/02/2025	ROI request sent to stakeholders			
12/02/2025	Scott Franks on the behalf of the Wonnarua PBC	Scott Franks	Registered interest via phone	None required
12/02/2025	Wailwan Aboriginal Group	Phil Boney	Registered interest via email	None required
12/02/2025	Didge Ngunawal Clan	Paul Boyd and Lily Carroll	Registered interest via email	None required
12/02/2025	Bariyan Cultural Connections	Kayelene Slater	Registered interest via email	None required
13/02/2025	Konanggo Aboriginal Cultural Heritage Services	Robert Young	Registered interest via email	None required
15/02/2025	Ngambaa Cultural Connections	Karina Slater	Registered interest via email	None required
18/02/2025	Kamilaroi Yankuntjatjara Working Group	Phil Khan	Registered interest via email	None required
24/02/2025	Butucarbin Aboriginal Corporation	Jennifer Beal	Registered interest via email	None required
25/02/2025	Amanda Hickey Cultural Services	Amanda Hickey	Registered interest via email	None required
25/02/2025	A1 Indigenous Services	Carolyn Hickey	Registered interest via email	None required
13/02/2025	Newspaper advertisement			
28/02/2025	Methodology sent to RAPs			
7/03/2025	Ngambaa Cultural Connections	Karina Slater	"I would like to confirm that I have received and support the current methodology for the port botany Quayline project"	None required
10/03/2025	Wailwan Aboriginal Group	Phil Boney	"Thankyou for contacting Wailwan Aboriginal Group, We understand that the proposed works takes place in a highly disturbed context and that there is little requirement for test excavations or ongoing field works; However we would like to be able to participate in the visual inspection if possible"	None required
20/03/2025	Amanda Hickey Cultural Services	Amanda Hickey	"Thank you for your email AHCS support the draft methodology If you need anything please let me know"	None required

Date	Stakeholder Group	Stakeholder Representative	Correspondence/Comments	AECOM Response
31/03/2025	Kamilaroi Yankuntjatjara Working Group	Phil Khan	"Thank you for your methodology for Port Botany Quayline Equalisation project, the study area is highly significant and sensitive to our people. Port Botany would have provided fish, shellfish and crustaceans and wetlands ducks, swans & reeds, shell middens, kangaroos & emu's were common along the shoreline. Creeks and springs around Port Botany provided freshwater. We agree and support your report to do a visual site inspection. We look forward to working alongside you on this project"	None required
2/04/2025	Site inspection completed			
2/05/2025	ACHAR sent to RAPs			
2/06/2025	Kamilaroi Yankuntjatjara Working Group	Phil Khan	"Thank you for your Draft ACHAR for Port Botany Quayline Equalisation, we agree and support your management recommendations"	None required

Annexure B

Agency letters and
responses

Annexure B Agency letters and responses



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ABN 20 093 846 925

29 January 2025

Heritage NSW
NSW Department of Climate Change, Energy, the Environment and Water
Locked Bag 5020, Parramatta NSW, 2124
Email: heritagemailbox@environment.nsw.gov.au

Dear Sir/Madam,

RE: Request for relevant Aboriginal stakeholder Information for the Port Botany Quayline Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

NSW Ports is seeking approval to undertake quay equalisation at Port Botany, to ensure equitable operational quayline length between the three container stevedore companies operating at Port Botany. Port Botany (the Site) is located across both the Bayside and Randwick Local Government Areas (LGAs) around one kilometre south-east of Sydney Kingsford Smith Airport. The Project Area for AECOM's Aboriginal heritage assessment, comprising the area within which the Project would be constructed and operated, is shown on Figure 1 below.

The purpose of this letter is to request from you, in accordance with cl 80C(2)(a) of the *National Parks and Wildlife Regulation 2009* and Section 4.1.2 of Heritage NSW's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), the name and contact details of Aboriginal individuals and/or organisations whom you consider may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects/places in the Project Area, and who may be interested in being consulted.

It would be greatly appreciated if a response to this request could be received by 5 February 2025.

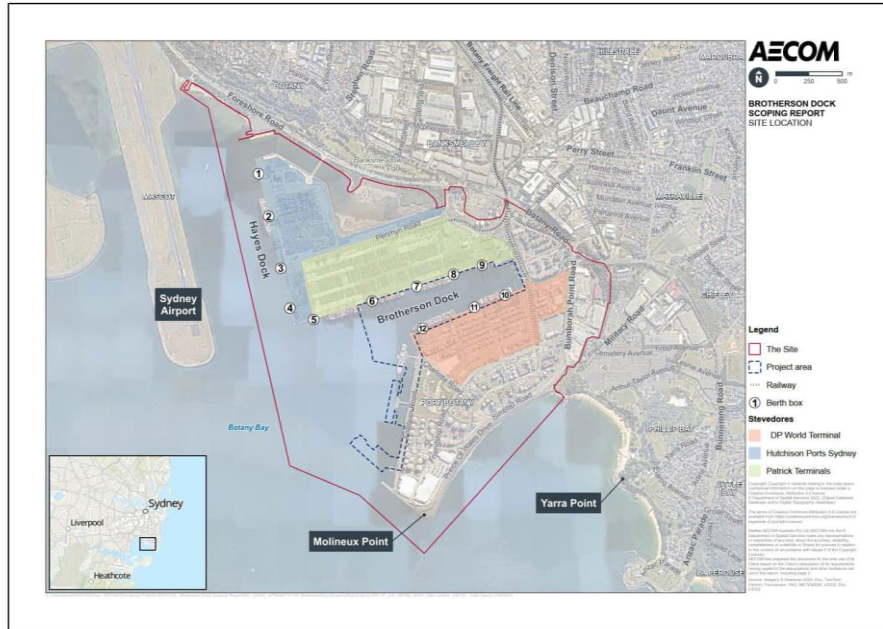
Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
Ph: 0410 513 509
Fax: +61 2 8934 0001
Email: Geordie.Oakes@aecom.com

Kind regards,

Geordie Oakes
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AECOM

Figure 1 Project Area



1 of 2



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29 January 2025

Greater Sydney Local Land Service
PO Box 4515
Westfield Penrith NSW 2750
Email: gs.service@lls.nsw.gov.au

Dear Sir/Madam,

RE: Request for relevant Aboriginal stakeholder information for the Port Botany Quayline Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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It would be greatly appreciated if a response to this request could be received by 5 February 2025.

Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
Ph: 0410 513 509
Fax: +61 2 8934 0001
Email: Geordie.Oakes@aecom.com

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29 January 2025

Heritage Advisor
Randwick City Council
Administration Building & Customer Service Centre
30 Frances Street
Randwick NSW 2031

Email: council@randwick.nsw.gov.au

Dear Sir/Madam,

**RE: Request for relevant Aboriginal stakeholder information for the Port Botany Quayline
Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)**

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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29 January 2025

Heritage Advisor
Bayside Council
152 Bunnerong Road
Eastgardens NSW 2036

Email: council@bayside.nsw.gov.au

Dear Sir/Madam,

**RE: Request for relevant Aboriginal stakeholder information for the Port Botany Quayline
Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)**

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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29 January 2025

La Prouse Local Aboriginal Land Council
1 Elaroo Ave
Phillip Bay NSW 2036

Email: admin@laprouse.org.au

Dear Sir/Madam,

RE: Request for relevant Aboriginal stakeholder Information for the Port Botany Quayline Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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It would be greatly appreciated if a response to this request could be received by 5 February 2025.

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29 January 2025

The Registrar
Office of the Registrar, Aboriginal Land Rights Act 1983
PO Box 787
Parramatta NSW 2124
Email: aboriginalowners@oralra.nsw.gov.au

Dear Sir/Madam,

**RE: Request for relevant Aboriginal stakeholder Information for the Port Botany Quayline
Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)**

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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The purpose of this letter is to request from you, in accordance with cl 80C(2)(a) of the *National Parks and Wildlife Regulation 2009* and Section 4.1.2 of *Heritage NSW's Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), a list of Aboriginal owners relevant to the Site and the name and contact details of Aboriginal individuals and/or organisations whom you consider may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects/places in the Site, and who may be interested in being consulted.

It would be greatly appreciated if a response to this request could be received by 5 February 2025.

Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
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29 January 2025

Native Title Services Corporation Limited (NTSCorp Ltd)
PO Box 2105
Strawberry Hills NSW 2012

Email: notifications@ntscorp.com.au

Dear Sir/Madam,

**RE: Request for relevant Aboriginal stakeholder Information for the Port Botany Quayline
Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)**

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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It would be greatly appreciated if a response to this request could be received by 5 February 2025.

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29 January 2025

National Native Title Tribunal
New South Wales – Sydney Office
GPO Box 9973
Sydney NSW 2000

Email: NTService@nntt.gov.au

Dear Sir/Madam,

**RE: Request for relevant Aboriginal stakeholder Information for the Port Botany Quayline
Project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)**

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by NSW Ports Pty Ltd (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project (the Project) at Port Botany, Sydney, NSW.

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The purpose of this letter is to request from you, in accordance with cl 80C(2)(a) of the *National Parks and Wildlife Regulation 2009* and Section 4.1.2 of *Heritage NSW's Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010), for a list of registered native title claimants, native title holders and registered Indigenous Land Use Agreements for the Project Area.

It would be greatly appreciated if a response to this request could be received by 5 February 2025.

Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
Ph: 0410 513 509
Fax: +61 2 8934 0001
Email: Geordie.Oakes@aecom.com

Kind regards,

Geordie Oakes
Archaeologist
Geordie.Oakes@aecom.com
Direct Dial: 0410513509

Annexure C

Newspaper
advertisement

THE UNIVERSITY OF CHICAGO

Annexure D

Expression of interest
letter and responses

Annexure D Expression of interest letter and responses



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Gadigal Country
Level 21, 420 George Street ABN 20 093 846 925
Sydney NSW 2000
PO Box Q410
QVB Post Office NSW 1230
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12 February 2025

Dear Stakeholder,

RE: Aboriginal community consultation for the Port Botany Quayline Equalisation located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)

I am writing to inform you that AECOM Australia Pty Ltd (AECOM) has been commissioned by Port Botany Operations Pty Ltd as Trustee for Port Botany Unit Trust (NSW Ports) to prepare an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation (the Indicative Project Area, Figure 1) at Port Botany, Sydney, NSW. Please note, the Project Area is indicative only and may be subject to minor modifications during detailed design.

The proponent for the Project is NSW Ports, Gate B103, Penrhyn Road, Port Botany NSW, 2032, ABN: 25 855 834 182. The Project contact at NSW Ports is Greg Walls (email: greg.walls@nswports.com.au).

You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and places within the Project Area. Accordingly, AECOM is inviting you to participate in community consultation for this Project.

To register your interest in consultation for this Project, please contact the following:

Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
Ph: 0410513509

Email: geordie.oakes@aecom.com

To be involved in the consultation process, registrations must be received by 27 February 2025.

This notification is given in accordance with clause 60C (2)(b) of the *National Parks and Wildlife Regulation 2019* and section 4.1.3 of the Office of Environment and Heritage's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010). The purpose of community consultation with Aboriginal people is to assist the Proponent in the preparation of a State Significant Development Application and to assist the determining authority in their consideration and determination of the application.

Please be advised that if you register an interest in consultation, your details will be forwarded to Heritage NSW and the La Perouse Local Aboriginal Land Council, unless you specify that you do not want your details released.

Yours faithfully

Geordie Oakes
Principal Heritage Specialist
geordie.oakes@aecom.com

Direct Dial: +64 2 89340610
Direct Fax: +64 2 89340001

AECOM

Figure 1 Indicative Project Area



I:\aecom\group\team\team_archaeology & heritage\proposals & projects\without apic numbers\3024_06_19_port botany quayline\3.0 aboriginal community consultation\2.0 rslgb quayline no_2025_02_12.docx
1 of 2

Oakes, Georgie

From: Carolyn .H <cazadirect@live.com>
Sent: Tuesday, 25 February 2025 5:05 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR
Attachments: A1.PL.2026.pdf; A1.WC.2026.pdf

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Contact: Carolyn Hickey
Mobile: 0411 650057
Email: Cazadirect@live.com
Address: 73 Russell St, Emu Plains, NSW 2750
ABN: 20 616 970 327

Hi,
Thank you for your email. I would like to formally register my interest in being involved in all levels of consultation for this project. This includes attending meetings, preparing reports, sharing cultural information and participating in available fieldwork.

About Carolyn Hickey

I am a Traditional Owner with over 25 years of experience in preserving Aboriginal cultural heritage. My extensive cultural knowledge is essential in determining the significance of Aboriginal objects and values within the project area.

[I have attached A1 Indigenous Services Insurances.](#)

[A1 INDIGENOUS SERVICES, Represents over 100 Indigenous Locals](#)

I agree to my details being shared with OEH and the LALC. Please feel free to contact me using the details provided above.

Kind regards,
Carolyn Hickey

Oakes, Georgie

From: Butucarbin Heritage <butuheritage@gmail.com>
Sent: Monday, 24 February 2025 12:48 AM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR

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Good evening,

On behalf of Butucarbin, I would like to register for this project.

Kind regards,
Jenny

On Wed, Feb 12, 2025 at 12:29 PM Oakes, Georgie <Geordie.Oakes@aecom.com> wrote:

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Georgie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM
M 0410513509
geordie.oakes@aecom.com

AECOM

Level 21, 420 George Street,
Gadigal Land, Sydney 2000
Q410, QVB Post Office, Sydney 2000
T 8934 0000

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Oakes, Georgie

From: lilly carroll <didgengunawalclan@yahoo.com.au>
Sent: Wednesday, 12 February 2025 3:00 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR

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Hi Georgie

DNC would like to register an interest in the port botany Quayline Equalisation project

Kind regards
Paul boyd and Lily Carroll
Directors DNC
0426 823 944

[Sent from Yahoo Mail for iPhone](#)

On Wednesday, February 12, 2025, 12:29 pm, Oakes, Georgie <Geordie.Oakes@aecom.com> wrote:

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Georgie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM
M 0410513509
geordie.oakes@aecom.com

Oakes, Georgie

From: Kayelene Slater <bariyan.culturalconnections@gmail.com>
Sent: Wednesday, 12 February 2025 4:01 PM
To: Oakes, Georgie
Subject: Register for Port Botany Quayline Equalisation

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Bariyan Cultural Connections would like to express our interests to register for Port Botany Quayline Equalisation.

We have cultural connection to Country and knowledge relevant to the project area, we are descendants of the Traditional Dharug Custodians, born, live, work and have a continuous connection to Country.

We are a local Business with Highly skilled experienced Aboriginal Site officers who have been engaged in all aspects and protection of Aboriginal objects and places in Aboriginal Cultural and Heritage in Aboriginal Archaeology for over 16 years and they can determine the significance of Aboriginal objects and/or place within and around the surrounding project areas in which is highly significant to our people and country.

We have white cards and insurances available on request.

Looking forward to hearing from you.

Kind Regards

Kayelene Slater - Manager

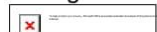
Bariyan Cultural Connections

Dharug Country

P: 0447 030 865

E: bariyan.culturalconnections@gmail.com

Aboriginal Owned and Operated Cultural and Heritage Business



We would like to acknowledge the traditional Custodians of Country which we live and work, we recognize their continuing connection to the land, waters and culture. We would like to pay our respects to our Elders past, present and extend to all that we may meet on our journey.



Oakes, Georgie

From: Robert Young <konanggo_consultancy@hotmail.com>
Sent: Thursday, 13 February 2025 4:37 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR

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Hi Georgie,

I hope you are doing well. KACHS would like to express our interest in the upcoming Port Botany Quayline Equalisation ACHAR project.

We are located just 10 minutes from the site, which positions us conveniently for this project.

KACHS looks forward to the opportunity of working with you.

Yours In Culture,

Robert Young

Konanggo Aboriginal Cultural Heritage Services

9/19-23 Moate Avenue,

Brighton Le Sands 2216 NSW

Email: konanggo_consultancy@hotmail.com

Email: kachskonanggo@gmail.com

W: <https://www.konanggo.com>

Phone: 0450497270

From: Oakes, Georgie <Geordie.Oakes@aecom.com>
Sent: Wednesday, February 12, 2025 12:28:54 PM
To: Oakes, Georgie <Geordie.Oakes@aecom.com>
Subject: Registration of Interest - Port Botany Quayline Equalisation ACHAR

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Georgie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM

M 0410513509

geordie.oakes@aecom.com

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Oakes, Georgie

From: Kaarina Slater <ngambaa.culturalconnections@gmail.com>
Sent: Saturday, 15 February 2025 8:55 AM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR

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On behalf of Ngambaa Cultural connections I would like to register my expression of interest for the Port Botany Quayline project

On Wed, 12 Feb 2025, 12:29 pm Oakes, Georgie, <Geordie.Oakes@aecom.com> wrote:

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Georgie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM
M 0410513509
geordie.oakes@aecom.com

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Gadigal Land, Sydney 2000
Q410, QVB Post Office, Sydney 2000
T 8934 0000

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Oakes, Georgie

From: Phil Khan <philipkhan.acn@live.com.au>
Sent: Tuesday, 18 February 2025 12:11 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR
Attachments: Public liability 2025.pdf; 2025 Icare.pdf

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Hi Georgie,

Thank you for informing us that **Eco Logical** will be involved in an Aboriginal Cultural Heritage Assessment at **Port Botany Quayline Equalisation** & that you are inviting Aboriginal organisations to register, if they wish too be involved in the community consultation process.

As a senior Aboriginal person for the past 51yrs, I actively participate in the protection of the Aboriginal Cultural Heritage throughout the Sydney Basin, & particularly throughout Western Sydney, on behalf of Kamilaroi-Yankuntjatjara Working Group I wish to provide to you my organisation's registration of interest.

I wish to be involved & participate in all levels of consultation/project involvement. I wish to attend all meetings, participate in available field work & receive a copy of the report.

I have attached a copy of Kamilaroi-Yankuntjatjara Working group's Public Liability Insurance & Workers Compensation certificate.

Our RAPS have up to 16yrs Cultural Heritage experience in - field work which involves manual excavation (digging), sieving, identifying artefacts, setting up transits, setting up equipment, packing equipment, site surveys & attending meetings (Focus groups, CwC, interpretation).

Should you wish me to provide further information, please do not hesitate to contact me or Stefeanie on 0451068480.

Kind Regards
Phil Khan – Director
P 0451068480
E philipkhan.acn@live.com.au
ABN 26 637 314 384

Oakes, Georgie

From: Phillip Boney <Waarlan12@outlook.com>
Sent: Wednesday, 12 February 2025 2:11 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR

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Sent from my iPhone

On 12 Feb 2025, at 12:29 PM, Oakes, Georgie <Geordie.Oakes@aecom.com> wrote:
Hey Georgie Phil here I would like to register my interest in the consultation process for this project
and I look forward for information in the future regarding this project on its next stages thank you

Regards

Phil Boney

Wailwan Aboriginal Group 🇺🇸 🇦🇺

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline
Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the
potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects
and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact
Geordie Oakes via the details below. To be involved in the consultation process, registrations must be
received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM
M 0410513509
geordie.oakes@aecom.com

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Gadigal Land, Sydney 2000
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<image001.png>

<PB Quayline ROI_2025_02_12.pdf>

A1 Indigenous Services is a 100% Indigenous-owned Australian company offering a range of services to the construction industry. Our mission is to commit to an innovative approach for a better future for Indigenous employment and community, while improving ways to close the gap in Aboriginal participation in the construction industry. We are dedicated to building strength in Aboriginal communities and our Indigenous labour force.



A1 Indigenous Services is a member of the NSW Indigenous Chamber of Commerce (NSWICC). A business or enterprise carrying the NSWICC Assured logo has met national policy requirements as upheld by FACCI, ensuring that it is identified as a First Nations business owner or entrepreneur and that it demonstrates compliance with government and industry regulators.



From: Oakes, Geordie <Geordie.Oakes@aecom.com>
Sent: Wednesday, 12 February 2025 12:28 PM
To: Oakes, Geordie <Geordie.Oakes@aecom.com>
Subject: Registration of Interest - Port Botany Quayline Equalisation ACHAR

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Geordie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Oakes, Georgie

From: Amanda De Zwart <amandahickey@live.com.au>
Sent: Tuesday, 25 February 2025 5:08 PM
To: Oakes, Georgie
Subject: Re: Registration of Interest - Port Botany Quayline Equalisation ACHAR
Attachments: Confirmation of Insurance (4).pdf

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Hi Georgie

Thank you for your email AHCS would like to Formally register an interest in this project AHCS holds cultural knowledge towards determining aboriginal heritage

Attached is my current insurance

If you need anything else please don't hesitate to contact me

Have a great day

Amanda hickey AHCS

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From: Oakes, Georgie <Geordie.Oakes@aecom.com>
Sent: Wednesday, February 12, 2025 12:28:54 PM
To: Oakes, Georgie <Geordie.Oakes@aecom.com>
Subject: Registration of Interest - Port Botany Quayline Equalisation ACHAR

Dear Stakeholder,

Please find attached a Registration of Interest (ROI) request for the Port Botany Quayline Equalisation ACHAR. You have been identified as an Aboriginal person or organisation with the potential to hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or places potentially within the Project Area.

Accordingly, if you wish to participate in the consultation process for this Project, please contact Georgie Oakes via the details below. To be involved in the consultation process, registrations must be received by 27 February 2025.

All the best,

Geordie

Geordie Oakes

Principal Heritage Specialist, AECOM
M 0410513509
geordie.oakes@aecom.com

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Annexure E

Methodology and
responses

Annexure E Methodology and responses



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PO Box Q410
QVB Post Office NSW 1230
Australia
www.aecom.com

+61 2 8934 0000 tel
+61 2 8934 0001 fax
ABN 20 093 846 925

28 February 2025

Dear Stakeholder,

RE: Proposed Aboriginal cultural heritage assessment methodology for the Port Botany Quayline Equalisation project located in Port Botany, NSW – Bayside and Randwick Local Government Areas (LGAs)

Thank you for registering to participate in consultation for the Aboriginal Cultural Heritage Assessment Report (ACHAR) being prepared for the Port Botany Quayline Equalisation project (shown in the "Project Area", Figure 1) located at Port Botany, Sydney, NSW.

I am writing to you, as a Registered Aboriginal Party (RAP) for this project, to provide you with a copy of the proposed assessment methodology AECOM has prepared for the Project. This is being provided for your review and comment in accordance with sections 4.3.1 and 4.3.2 of Heritage NSW's *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010).

All comments on the proposed methodology must be received by 29 March 2025. Comments can be provided in writing or by phone. I would also like to take this opportunity to request from you any initial comments regarding the cultural values of the Project Area. Please respond to:

Geordie Oakes
c/- AECOM Australia Pty Ltd
PO Box Q410, QVB Post Office,
Sydney, NSW 1230
Ph: 0410513509
Fax: +61 2 8934 0001
Email: geordie.oakes@aecom.com

We look forward to your participation in the assessment of the Project.

Yours faithfully

Geordie Oakes
Principal Heritage Specialist
geordie.oakes@aecom.com
Direct Dial: 0410 513 509
Direct Fax: +64 2 89340001



Port Botany Quayline Equalisation Project: Aboriginal Cultural Heritage Assessment Proposed Methodology

1.0 Project Overview

Port Botany is the primary container port in New South Wales and Australia's largest common user bulk liquids facility. Three container stevedoring companies operate within the Port Botany Lease Area, across Brotherson Dock and Hayes Dock, facilitating the import and export of containers.

NSW Ports is seeking approval to undertake works to ensure equitable operational quayline length between the three container stevedore companies operating at Port Botany. The Project would involve the extension of the southern side of the Brotherson Dock quayline by 314 metres, with an additional 8 ha of wharf hardstand area, to provide mooring infrastructure and to support ship to shore cranes and an apron area on which container operations can take place. The extension would result in a combined quayline length of around 1,250 metres to accommodate larger container ships, commensurate to the other stevedore operators.

The Project would involve dredging works within Brotherson Dock (between 0 and ~5 metres additional depth from the current bed profile) to provide a source of sand for the reclamation and additional depth for vessels. Approximately 0.6 million cubic metres of sediment would be extracted from Brotherson Dock and reused for reclamation.

The existing Bulk Liquid Berth 1 (BLB1) is located within the footprint of the proposed extended quayline. To facilitate the quayline extension, the existing BLB1 would be demolished and replaced with a new Bulk Liquid Berth (known as BLB3) to the south of the existing BLB2.

The key features of the Project would include:

- Construction of a new BLB3 south of BLB2 including the installation and commissioning of its pipeline infrastructure
- Demolition and removal of the existing BLB1 and its associated pipeline infrastructure
- Construction of an extended quayline on the southern side of Brotherson Dock
- Installation and operation of ancillary facilities on the quayline.

The Project would require construction laydown areas located in the Project Area to support landside construction and water based construction (for equipment that would be loaded onto barges for construction over water).

The design will continue to evolve through the design development, consultation and environmental assessment process. The final concept design would be presented in the Environmental Impact Statement (EIS).

Port Botany is essential infrastructure for the functioning of the NSW and Australian economy. The project is a key infrastructure investment that ensures Port Botany can efficiently meet the trade needs of NSW.

2.0 The Project Area

The Project Area, shown in Figure 1, is indicative only and has been developed as a conservative boundary to encompass all possible design options associated with the Project. However, not all of this area will be subject to development.

The Project Area is situated within Port Botany, a deep-water seaport in Botany Bay, adjacent to Botany Road in the suburb of Matraville. Irregularly shaped, the Project Area is approximately 57.6 ha in size and covers part of the existing Brotherson Dock area and waters of Botany Bay. More broadly, Port Botany is located across both the Bayside and Randwick Local Government Areas (LGAs) around one kilometre south-east of Sydney Kingsford Smith Airport. The Port Botany Lease Area and the Project Area are contained in a specialised land use zone (SP1 – Special Activities), permitting certain development pertaining to the operation of the Port, known as the Port Botany Lease Area. All areas of the Project occur within the previously disturbed wharf landside area and deep water areas of Brotherson Dock.

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Figure 1 Indicative Project Area and AHIMS sites



I:\aecom\group\intern\team_1\archaeology & heritage\proposals & projects without apc numbers\2024_08_19_port botany quayline\0.0 aboriginal community consultation\0.0 methodology\aecom_bot_cover letter\methodology_2025_02_28.docx
 1 of 7



3.0 AHIMS Database

The AHIMS database, administered by Heritage NSW, contains records of all Aboriginal objects in accordance with Section 89A of the *National Parks and Wildlife Act 1974*. It also contains information about Aboriginal places, which have been declared by the Minister to have special significance with respect to Aboriginal culture. Previously recorded Aboriginal objects and declared Aboriginal places are known as 'Aboriginal sites.'

A search of the AHIMS database was undertaken on 19 August 2024 for a 10 x 10 km area centred on the Project Area. A total of 76 Aboriginal archaeological sites were identified within the search area comprising 22 middens, 20 rock engravings, 10 burials, eight rockshelters, six open artefact sites (i.e., artefact scatters and isolated artefacts), five areas of Potential Archaeological Deposit (PAD), two grinding grooves, two art sites and one quarry (Figure 1). Consideration of the locations of previously recorded sites indicates that three are located within the Project Area, including rockshelter with midden sites - "Bumborah Point" (45-8-1152) and "Botany Bay" (45-8-0978) - located in the eastern part of the Project Area, and rock engraving site "Botany Bay:Bumborah Point" (45-8-0639) in the southern part of the Project Area. All three sites were added to the AHIMS database in the late 1970s.

4.0 Environmental Context

As noted above, the Project Area for this assessment consists of part of the existing Brotherson Dock area and waters of Botany Bay, with the dock area situated on fully reclaimed land created during the construction of Port Botany. These extensive land reclamation efforts, combined with historical land use activities, have significantly altered the natural topography of the Project Area and the broader Botany Bay area.

Botany Bay's northeastern shoreline underwent significant development prior to the port's construction. However, it wasn't until 1969, when the NSW Government approved the development of port facilities in Botany Bay, that the most landscape modifications occurred. The development included plans to dredge the entrance channel and approach routes to a depth of approximately 21 m and reclaim approximately 607 ha of land, extending about 2 km southwest of the original foreshore. Construction of the port began in 1971, with dredging of the bay commencing at this time. This was essential to create deep-water berths for large cargo and container ships that could not access the shallower natural waters of Botany Bay. At the time, the bay's seabed was relatively shallow and composed of sand, silt, and other sediments, which were removed using dredging equipment such as cutter suction dredgers and trailing suction hopper dredgers. Dredged material was used for land reclamation, including the creation of foundations for port terminals, wharves, and container storage areas. Large seawalls were also constructed of rock and other material to both contain the reclaimed land and also protect it from erosion (NSW Ports, 2019). Dredging activities have continued periodically over time to deepen the shipping channels and expand port capacity.

5.0 Methodology

The approach that AECOM intends to adopt for undertaking the assessment includes the following key components:

1. Background research
2. Fieldwork (visual inspection)
3. Consultation with Registered Aboriginal Parties (RAPs) to identify the Aboriginal cultural heritage values of the Project Area
4. Preparation of an ACHAR for the Project Area, detailing the results of the above. Appropriate management/ mitigation measures for the identified Aboriginal heritage values of the Project Area will be provided in this report.

The proposed methodologies for each of these components are detailed in the sections below.

5.1 Background Research

The following tasks will be undertaken for the background research component of the assessment:

- Search of the AHIMS database

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- Search of the Native Title Register for Native Claims or Determinations
- A review of associated site cards and reports to clarify site contents, extents, and statuses
- A review of the landscape context and history of the Project Area, with a particular emphasis on its implications for the nature and distribution of Aboriginal archaeological materials
- A review of relevant archaeological and ethnohistoric information for the Project Area and environs
- Preparation of a predictive model for the Aboriginal archaeological record of the Project Area.

5.2 Fieldwork

AECOM proposes to undertake a visual inspection of the Project Area to identify any previously unrecorded Aboriginal sites and areas of archaeological sensitivity (if present). The inspection will be undertaken by a combined field team of AECOM archaeologists and an appropriate number of RAP field representatives. While vehicles may be used to transport the survey team between inspection localities, the inspection will be completed on foot. The location of any Aboriginal sites or areas of sensitivity identified during the inspection will be recorded using one of two handheld differential Global Positioning System (GPS) units, with associated transect data (e.g., levels of visibility and exposure, disturbance factors) entered directly into the same unit upon the completion of the inspection.

Archaeological test excavation is *not* currently proposed within the Project Area as part of the ACHAR. In the unlikely event, that Aboriginal sites be identified within the Project Area and it be determined that test excavation is required to better understand the nature, extent and significance of these sites, then it would be considered as part of the ACHAR.

5.3 Consultation with RAPs

RAP representatives are in the best position to provide information on the Aboriginal social/ cultural heritage values of a given area. During the assessment process, AECOM archaeologists will consult with RAPs regarding the cultural heritage values of objects and places in the Project Area. This will include:

- A request (with this draft methodology) for any initial comments regarding the Aboriginal cultural heritage values of the Project Area
- The provision of this information package, including draft assessment methodology to all RAPs for comment prior to fieldwork
- RAP participation in the visual inspection
- Discussion of cultural heritage values with RAPs during the visual inspection and generally throughout the assessment until the end of the draft ACHAR review period
- Provision of the draft ACHAR to all RAPs for comment prior to finalisation.

The identification of cultural values may include places of social, spiritual and cultural value, historic places with cultural significance, and potential places/ areas of historic, social, spiritual, and/ or cultural significance.

As noted in Environment and Heritage Group's *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010a), some information obtained from RAPs may be sensitive or have restricted public access. AECOM, in consultation with relevant RAPs, will develop appropriate protocols for sensitive or restricted information, potentially including:

1. Cultural restrictions on access to the material
2. Cultural restrictions on communication of the nature of the material
3. Cultural restrictions on disclosing the location of the material
4. Cultural recommendations on handling the material
5. Any other contextual information



6. The names and contact details of persons authorised within the relevant Aboriginal group to make decisions concerning the Aboriginal material and the degree of authorisation
7. Details of any consent given in accordance with customary law
8. Level of confidentiality to be afforded to the material
9. Access and use, by the RAPs, of the cultural information in the material.

5.4 Preparation of an ACHAR

AECOM will prepare an ACHAR for the Project detailing the results of the above investigations and consultation in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010b). The ACHAR will provide appropriate management and mitigation measures for the Project Area's Aboriginal heritage values (if present). RAPs will have the opportunity to comment on management and mitigation options proposed in the ACHAR prior to finalisation of the report.

The ACHAR will include the following specific elements:

- A description of the Aboriginal objects and declared Aboriginal places located within the Project Area
- A description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, which exist across the whole area that will be affected by the Project and its associated activities, and the significance of these values for the Aboriginal people who have a cultural association with the land
- How the requirements for consultation with Aboriginal people have been met (as specified in clause 80C of the *National Parks and Wildlife Regulation 2019*)
- The observations of RAPs regarding the likely impact of the Project and its associated activities on their cultural heritage
- Any actual or likely harm posed to the Aboriginal objects or declared Aboriginal places by the Project and its associated activities
- Any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm, or, if this is not possible, to manage (minimise) harm.

The ACHAR may be used to support the preparation of an Aboriginal Cultural Heritage Management Plan (ACHMP).

6.0 Project Timeline

The current indicative timeline for the preparation of the ACHAR is:

- Collation of culturally significant information – ongoing throughout process until the end of the draft ACHAR review period
- Provision of comment on this draft methodology – February/March 2025
- Visual inspection – March 2025
- Provision of a draft ACHAR report to each RAP for review and comment – expected to be May 2025, though subject to undertaking the visual inspection
- Period for comment on the draft ACHAR report – a minimum of 28 days following provision of the draft report
- Preparation of a final ACHAR report in consideration of comments received from the RAPs – expected to be June 2025, though subject to the timing of the elements above.

The above timelines are preliminary only and are subject to change. RAPs will be notified of dates for the visual inspection and the due date for provision of comments on the draft ACHAR report once available.



7.0 References

NSW Department of Environment Climate Change & Water. (2010a). *Aboriginal Cultural Heritage Consultation Requirements for Proponents*. Department of Environment, Climate Change and Water.

NSW Department of Environment Climate Change & Water. (2010b). *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. Department of Environment, Climate Change and Water.

NSW Ports. (2019). *40 Years of Port Botany*. Unpublished report.

Annexure F

RAP ACHAR comments

Annexure F RAP ACHAR comments

Oakes, Georgie

From: Phil Khan <philipkhan.acn@live.com.au>
Sent: Monday, 2 June 2025 2:35 PM
To: Oakes, Georgie
Subject: Re: Draft ACHAR - Port Botany Quayline Equalisation

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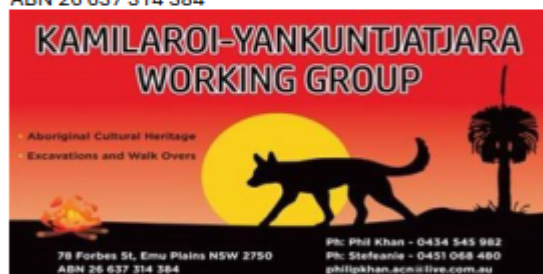
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Hi Georgie,

Thank you for your Draft ACHAR for Port Botany Quayline Equalisation, we agree and support your management recommendations.

Kind Regards
Phil Khan – Director
P 0451068480
E philipkhan.acn@live.com.au
ABN 26 637 314 384



From: Oakes, Georgie <Geordie.Oakes@aecom.com>
Sent: Friday, 2 May 2025 9:50 AM
To: Oakes, Georgie <Geordie.Oakes@aecom.com>
Subject: Draft ACHAR - Port Botany Quayline Equalisation

Dear Stakeholder,

Please find attached the draft Aboriginal Cultural Heritage Assessment Report (ACHAR) for the Port Botany Quayline Equalisation project for your review and comment. Should you have any comments on the draft ACHAR please provide these by email, mail or over the phone to Georgie Oakes via the contact details on this email.

Please note that the closing date for comments is 31 May 2025.

All the best,
Geordie