

Heritage

Kurnell B Line Upgrade: Heritage Impact Assessment

Prepared by Australian Museum Business Services
for URS Australia Pty Limited

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Executive Summary

Caltex Refineries (NSW) Pty Ltd (Caltex) propose to upgrade the Kurnell Jet Fuel Pipeline (B Line) (KBL), which runs from the Caltex Kurnell Refinery, beneath Botany Bay, to the Caltex Banksmeadow Terminal and then on to Sydney Airport. The Project has been designated a major project to which Part 3A, section 75F & 75M of the *Environmental Planning and Assessment Act* 1979 applies. Australian Museum Business Services (AMBS) was commissioned by URS Australia Pty Ltd (URS), on behalf of Caltex, to prepare a Heritage Impact Assessment (HIA) to address potential impacts to Aboriginal and historic cultural heritage arising from the works associated with the proposed upgrade. This report has been prepared in fulfilment of the Director General's Requirements (DGRs) for the Project.

The aim of the KBL project is to secure an increased and more reliable jet fuel supply to Sydney Kingsford Smith Airport thereby ensuring the ongoing viability and success of the airport business. The Caltex Kurnell Refinery was established in 1952 as the Australian Oil Refinery, which is identified as a heritage item on the SEPP for Kurnell Peninsula. Also, within the vicinity of the Caltex Refinery Wharf is the Kurnell Peninsula Headland, listed on the National Heritage List, and associated Cook's Landing Place, as well as the locally listed Silver Beach and roadway. The background research and physical assessment of the Caltex Oil Refinery site and Banksmeadow Terminal, undertaken for the historic heritage assessment, has determined that there will be no impacts to identified heritage values of items or places within the vicinity of the project. The major component of the works will be wholly contained within the boundaries of the Caltex Oil Refinery site and the Banksmeadow Terminal. These works are consistent with the ongoing operation and the technical significance of each site. Existing pipeline trenches following the extant alignment to the Caltex Refinery Wharf will be used for the new pipeline such that no significant archaeological relics will be exposed. Running the pipeline along the Caltex Refinery Wharf will not disrupt the existing aesthetic values, views or amenity of the local environment. There will be no adverse impacts on the local heritage significance of Silver Beach and roadway. Views from the Kurnell Peninsula Headland to the wharf include the wider industrial landscape of Botany Bay and as such the new pipeline will not have a significant impact on national historic and aesthetic heritage values of this significant place. The results of the Aboriginal heritage survey and recommendations were discussed with the Aboriginal community representatives, who agreed the proposed project impact areas do not contain Aboriginal heritage sites, and have no potential to contain subsurface archaeological deposits.

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1 Introduction

1.1 Preamble

Australian Museum Business Services (AMBS) has been commissioned by URS Australia Pty Ltd (URS), on behalf of Caltex Refineries (NSW) Pty Ltd (Caltex), to prepare a Heritage Impact Assessment (HIA) to address potential impacts to Aboriginal and historic cultural heritage arising from the proposed upgrade of the Kurnell Jet Fuel Pipeline (B Line) (KBL). KBL is a pipeline which runs from the Caltex Kurnell Refinery, beneath Botany Bay, to the Caltex Banksmeadow Terminal and then on to Sydney Airport.

The Project has been designated a major project to which Part 3A, section 75F & 75M of the *Environmental Planning and Assessment Act 1979* (EP&A Act) applies. The relevant Director General's Requirements (DGRs), issued 18 January 2011 identify Aboriginal Heritage as a key issue, requiring the project Environmental Assessment to address the following:

Aboriginal Heritage – including:

sufficient information and discussion to demonstrate the likely impacts on Aboriginal Heritage values/items and proposed mitigation measures; and

Should Aboriginal sites be found, an assessment of the Aboriginal sites identified should be done.

In addition, the following is relevant:

General Environmental Risk Analysis – including an environmental risk analysis to identify potential environmental impacts (construction and operation), proposed mitigation measures, potentially significant residual environmental impacts after the application of proposed mitigation measures and an appropriately detailed impact assessment of any additional key environmental impacts identified through the risk analysis.

The DGRs require consultation with relevant local Aboriginal communities and Local Aboriginal Land Councils (LALCs) during preparation of the EA, and compliance with *Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DoP and DEC)*. An assessment of the potential for adverse impacts on historic heritage fulfils the requirement of General Environmental Risk Analysis.

This report has been prepared to fulfil these requirements.

1.2 Study Area

The study area comprises two distinct areas on the north and south sides of Botany Bay; the Caltex Kurnell Refinery, including an easement between the refinery and a wharf at Silver Beach on Botany Bay, as well as the Caltex Banksmeadow Terminal, across the Bay. The Caltex Kurnell Refinery is within the Sutherland Shire Council Local Government Area (LGA), while the Banksmeadow Terminal is within the City of Botany Bay LGA.



Figure 1.1: Study area

1.3 The Proposal

Caltex is in the process of upgrading the KBL, of which Stage 1 was completed in the first quarter of 2010. Under the Stage 2 works Caltex is proposing to upgrade the KBL so as to increase its available capacity and improve the reliability of delivery of jet fuel to Sydney Airport (Figure 1.2 – Figure 1.4). At the Kurnell Refinery the proposed works involve installing new transfer pumps, coalescers, a new pigging station and other associated plant. The length of pipeline that runs from the refinery itself up to and on the wharf to the tie in point before the pipeline enters Botany Bay will also be replaced. The works will also relocate the pigging station at the wharf and install a new pigging station at the transfer pumps. At Banksmeadow Terminal the proposed works involve installing booster pumps, one coalescer, a number of valves, refurbishment of the pigging stations, installation of a variable speed drive (VSD) switchroom as well as installation of other mechanical and electrical plant.



Figure 1.2 The scope of works at the Kurnell Refinery (Source: KBL PEA Figure 2.2).



Figure 1.3 Detail of the scope of works at the Kurnell Refinery (Source: KBL PEA Figure 2.3).

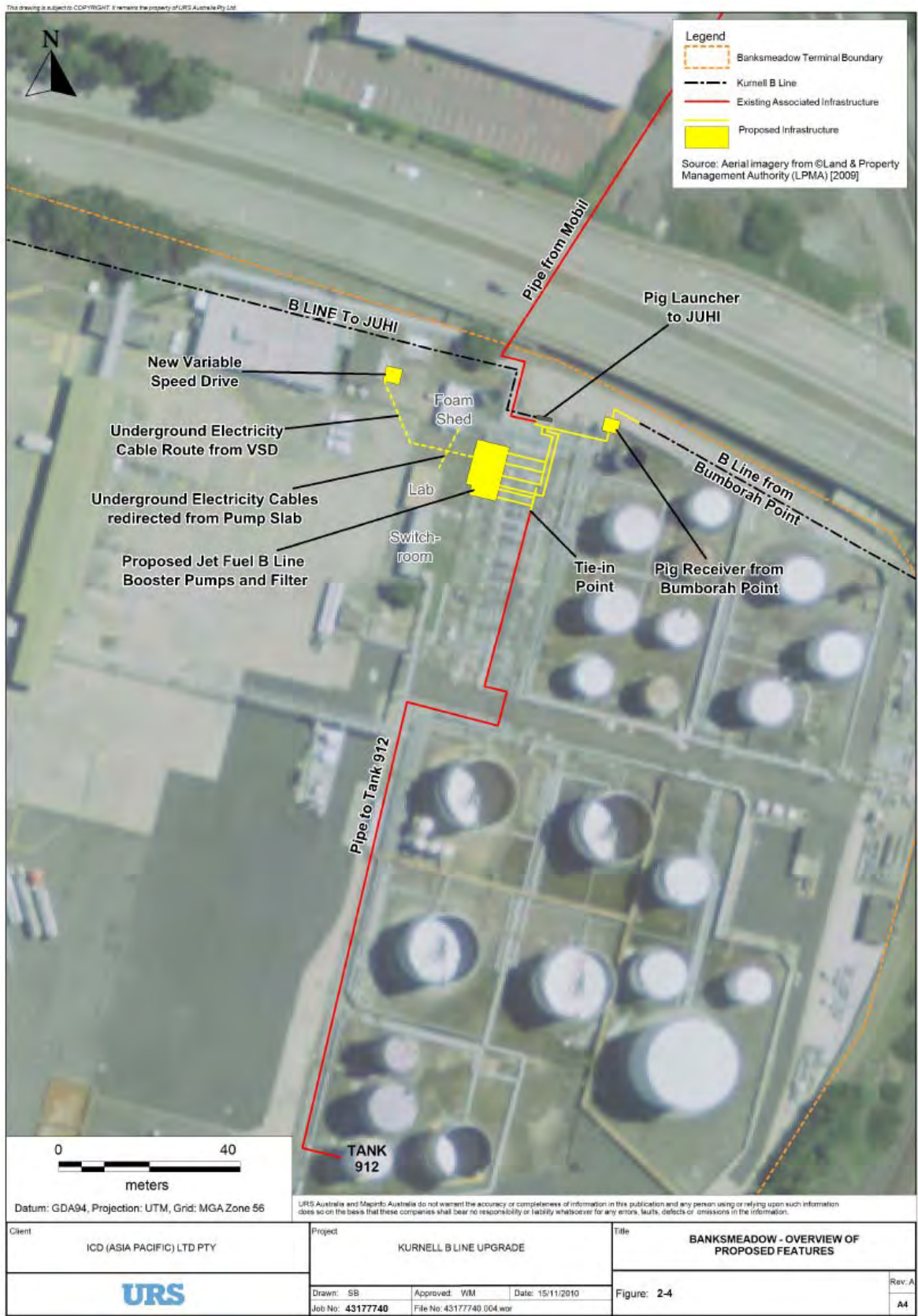


Figure 1.4 The scope of works at the Banksmeadow Terminal (Source: KBL PEA Figure 2.3).

1.4 Methodology

This heritage impact assessment is broadly consistent with the processes and principles set out in the Australia ICOMOS Burra Charter (*The Australia ICOMOS charter for the conservation of places of cultural significance*).

The assessment of Aboriginal scientific significance has been undertaken in accordance with the *NPWS Aboriginal Heritage Guidelines* (1997). The report complies with the Department of Environment, Climate Change and Water (DECCW) requirements for consultation with Aboriginal community representatives as per the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).

The historic heritage impact assessment has been prepared in accordance with current best-practice heritage guidelines as identified in the *NSW Heritage Manual* published by the Heritage Office and Department of Urban Affairs and Planning (now the Heritage Branch, Department of Planning) and associated documents, including *Assessing Heritage Significance*.

1.5 Authorship

This report has been prepared by AMBS Senior Project Manager Jennie Lindbergh, Project Manager Christopher Langeluddecke, and Project Officer Deborah Farina. AMBS Senior Project Manager, Jennie Lindbergh reviewed the report for consistency and quality.

2 Statutory Context

2.1 Environment Protection and Biodiversity Conservation Act 1999

In 2004, a new Commonwealth heritage management system was introduced under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The National Heritage List (NHL) was established to protect places that have outstanding value to the nation. The Commonwealth Heritage List (CHL) has been established to protect items and places owned or managed by Commonwealth agencies. Approval from the Minister is required for controlled actions which are deemed will have a significant impact on items and places included on the NHL or CHL.

- *The Kurnell Peninsula Headland, Listing No. 105812, is listed on the NHL*

There are no items within the near vicinity of the Kurnell Oil Refinery or Banksmeadow Terminal listed on the CHL.

The Register of the National Estate (RNE) was originally established under the *Australian Heritage Commission Act 1975*. Since the establishment of the NHL and CHL, there is now a significant level of overlap between the Register of the National Estate and heritage lists at the national, state and territory, and local government levels. To address this situation, the Register has been frozen since February 2007, meaning that no places can be added or removed. The RNE should be understood as an information resource only. Where an action has been referred to the Minister, in accordance with the EPBC Act, concerning World Heritage, National Heritage, Wetlands, endangered communities, or Commonwealth lands, the RNE may be used as a reference, where appropriate.

- *Captain Cook's Landing Place Historic Site is included on the RNE (Listing No. 3335)*

2.2 National Parks and Wildlife Act 1974

Under the provisions of the *National Parks & Wildlife Act 1974* (NPW Act), the Director-General of the National Parks and Wildlife Service (NPWS) is responsible for the care, control and management of all national parks, historic sites, nature reserves, state conservation areas, karst conservation reserves and regional parks. The Director-General is also responsible, under this legislation, for the protection and care of native fauna and flora, and Aboriginal places and objects throughout NSW.

All Aboriginal Objects are protected regardless of their significance or land tenure under the NPW Act. Aboriginal Objects can include pre-contact features such as scarred trees, middens and open campsites, as well as physical evidence of post-contact use of the area such as Aboriginal built fencing and fringe camps. The NPW Act also protects Aboriginal Places, which are defined as 'is or was of special significance with respect to Aboriginal culture'. Aboriginal Places can only be declared by the Minister administering the NPW Act.

Under Section 90 of the Act, it is an offence for a person to destroy, deface, damage or desecrate an Aboriginal Object or Aboriginal Place without the prior issue of a Section 90 consent. The Act requires a person to take reasonable precautions and due diligence to avoid impacts on Aboriginal Objects. Section 90 consents may only be obtained from the Environmental Protection and Regulation Division (EPRD) of DECCW. It is also an offence under Section 86 of the NPW Act to disturb or excavate land for the purpose of discovering an Aboriginal Object, or to disturb or move an Aboriginal Object on any land, without first obtaining a permit under Section 87 of the NPW Act.

The National Parks and Wildlife Amendment Regulation 2010 commenced on 1 October 2010. This Regulation excludes activities carried out in accordance with the *Code of Practice for Archaeological*

Investigation of Aboriginal Objects in NSW from the definition of harm in the Act. That is, test excavations may be carried out in accordance with this Code of Practice, without requiring a permit. The Regulation also specifies Aboriginal community consultation requirements (*Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*). In addition, the Regulation adopts a Due Diligence Code of Practice which specifies activities that are low impact, providing a defence to the strict liability offence of harming an Aboriginal object.

Part of the regulatory framework for the implementation of the NPW Act is the Aboriginal Heritage Information Management System (AHIMS), maintained by DECCW. AHIMS includes a database of Aboriginal heritage sites, items, places and other objects that have been reported to the DECCW. Also available through AHIMS are site cards, which describe Aboriginal sites registered in the database, as well as Aboriginal heritage assessment reports, which contribute to assessments of scientific significance for Aboriginal sites. The AHIMS is not a comprehensive list of all Aboriginal heritage in NSW, rather it reflects information which has been reported to DECCW. As such, site co-ordinates in the database vary in accuracy depending on the method used to record their location. Heritage consultants are obliged to report Aboriginal sites identified during field investigations to DECCW, regardless of land tenure, or whether such sites are likely to be impacted by a proposed development. The results of a site search for the local area are presented in Section 5.1.3.

2.3 Heritage Act 1977

The *Heritage Act 1977* provides protection for heritage places, buildings, works, relics, moveable objects or precincts that are important to the people of NSW. These include items of Aboriginal and non-Aboriginal heritage significance. Where these items or places have particular importance to the State of NSW, they are listed on the State Heritage Register (SHR).

There are no items or places within the near vicinity of the Kurnell Oil Refinery or Banksmeadow Terminal listed on the SHR.

The Act also provides statutory protection to relics, archaeological artefacts, features or deposits. Sections 139 to 146 of the Act requires that excavation or disturbance of land that is likely to contain, or is believed may contain, archaeological relics is undertaken in accordance with an excavation permit issued by the Heritage Council (or in accordance with a gazetted exception under Section 139(4) of the Heritage Act).

The Act defines an archaeological relic as *meaning any deposit, artefact, object or material evidence that:*

- (a) *relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*
- (b) *is of State or local heritage significance.*

Under Section 170 of the Heritage Act, government instrumentalities are required to maintain a register of heritage assets: a Heritage and Conservation Register, also known as a Section 170 Register. Section 170A (1) of the Heritage Act requires that a government instrumentality must give the NSW Heritage Council not less than 14 days written notice before the government instrumentality:

- (a) *removes any item from its register under section 170, or*
- (b) *transfers ownership of any item entered in its register, or*
- (c) *ceases to occupy or demolishes any place, building or work entered in its register.*

It should be noted that most activities, other than maintenance and cleaning, that impact on items listed on the Section 170 Register need approval from the Heritage Council. At a minimum this will require that a Review of Environmental Factors (REF) is approved by the appropriate authority.

Activities that involve heritage items also require the preparation of a heritage impact statement. This report has been prepared to fulfil this requirement.

2.3.1 Sydney Water Corporation Heritage and Conservation Register (Section 170 Register)

There are no items or places within the near vicinity of Kurnell Oil Refinery or Banksmeadow Terminal listed on the Sydney Water Section 170 Register.

2.3.2 Roads & Traffic Authority Heritage and Conservation Register (Section 170 Register)

There are no items or places within the near vicinity of Kurnell Oil Refinery or Banksmeadow Terminal listed on the Roads and Traffic Section 170 Register.

2.3.3 Ports Authority Heritage and Conservation Register (Section 170 Register)

There are no items or places within the near vicinity of the of Kurnell Oil Refinery or Banksmeadow Terminal listed on the Ports Authority Section 170 Register.

2.4 Environmental Planning and Assessment Act (1979)

The *Environmental Planning and Assessment Act* 1979 (EP&A Act) is the principal law regulating land use planning and development in NSW, and requires consideration to be given to the environment as part of the land use planning process. Projects are considered under different parts of the Act, including:

- Major projects, requiring the approval of the Minister for Planning and which are regional or State significant are undertaken under Part 3A of the Act.
- Minor or routine development projects, requiring local council consent are usually undertaken under Part 4. In limited circumstances, projects may require the Minister's consent.
- Projects which do not fall under Part 4 or Part 3A are undertaken under Part 5. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

The current project has been approved as a major project under Part 3A of the EP&A Act. Draft DGRs issued require Aboriginal heritage to be assessed as part of an Environment Assessment for the project.

The EP&A Act also controls the making of environmental planning instruments (EPIs). Two types of EPIs can be made: Local Environmental Plans (LEPs), covering local government areas; and State Environment Planning Policies (SEPPs), covering areas of State or regional environmental planning significance. LEPs commonly identify, and have provisions for, the protection of local heritage items and heritage conservation areas.

2.4.1 State Environmental Planning Policy (Kurnell Peninsula) 1989

The *State Environmental Planning Policy (Kurnell Peninsula) 1989* (SEPP) was amended in August 2010. The SEPP addresses the particular area of the Kurnell Peninsula with the stated aims and objectives including:

1. (a) *to conserve the natural environment of the Kurnell Peninsula and ensure that development is managed having regard to the environmental, cultural and economic significance of the area to the nation, State, region and locality,*
- (b) *to apply environmental performance criteria which will ensure that the environment is not adversely affected by development,*

2. (i) to conserve the environmental heritage of the Kurnell Peninsula.

The SEPP includes provisions for protecting items and places of Aboriginal and historic heritage, in particular under Clauses 23A–23D, and Clauses 20A–20C of the Amended Policy. Schedule 3 ‘Heritage items’ includes the following which are within the near vicinity of the Caltex Oil Refinery site.

Table 2.1: Items on Schedule 3 of SEPP 2006 within the vicinity of the Kurnell study area

Item	Primary Address	Listing No.
Botany Bay National Park – Kurnell Historic Site and Monuments	Kurnell Peninsula	L015 S
Boatshed	Prince Charles Parade, Kurnell	B341
Silver Beach and roadway	Prince Charles Parade, Kurnell	L012
Towra Point Nature Reserve and Quibray Bay	Towra Point	L010 R
Captain Cook Landing Site	Cape Solander Drive, Kurnell	A082
Banks Memorial	Cape Solander Drive, Kurnell	A084
Solander monument	Cape Solander Drive, Kurnell	A085
Forby Sutherland monument	Cape Solander Drive, Kurnell	A087
Landing Place Wharf abutment	Cape Solander Drive, Kurnell	A088
Alpha Farm site	Cape Solander Drive, Kurnell	A089
Captain Cook Watering Hole/Well	Cape Solander Drive, Kurnell	A090/A091
Flagpole	Cape Solander Drive, Kurnell	A092
Yena Track	Cape Solander Drive, Kurnell	A093
Muru Track	Cape Solander Drive, Kurnell	A094
Four wheel drive track	Captain Cook Drive, Kurnell	A028
Australian Oil Refinery	Sir Joseph Banks Drive, Kurnell	A038

2.4.2 Botany Local Environmental Plan 1995

Part 4 (clauses 31-37A) of the Botany Council LEP 1995 provide protection for heritage within the LGA. This includes heritage buildings, works, relics, trees or places, and items of Aboriginal heritage. The LEP specifies that Council consent is required for works undertaken to a heritage item or in the vicinity of a heritage item. Schedule 3 lists heritage items and heritage conservation areas within the Local Government Area.

There are 181 heritage items and two heritage conservation areas listed on Schedule 3; however, the *Botany Bay Marshalling Yards*, Beauchamp Road, Banksmeadow (Listing No. 21), is the only item or place within the near vicinity of the Banksmeadow Terminal.

3 Aboriginal Community Consultation

Aboriginal community consultation is an integral part of the assessment of Aboriginal cultural heritage significance. Consultation was undertaken in accordance with the *Interim Community Consultation Requirement for Applicants (DEC 2004)*. A log of the Aboriginal consultation undertaken for this project is provided in Appendix B.

The aims of this consultation process were to:

- allow identification of local Aboriginal community groups and individuals with an interest in being involved in the ongoing consultation process;
- provide the local Aboriginal community with the opportunity to inspect and comment on any Aboriginal sites and values of the study area and be involved in the heritage assessment process;
- identify the Aboriginal cultural heritage values of the study area;
- provide an opportunity for the local Aboriginal community to comment on the outcomes and recommendations of draft heritage assessment reporting; and
- integrate Aboriginal heritage values and recommendations for management into the assessment report.

3.1 Aboriginal Community Consultation Process

In accordance with DECCW guidelines, advertisements were placed in the St George & Sutherland Leader newspaper on 4 November 2010. The advertisements sought expressions of interest for participation in the Aboriginal heritage assessment process for the project to be registered. The closing date for registrations was 18 November 2010.

Emails were sent on 2 November 2010 to DECCW, NTS Corp, Office of the Registrar of Aboriginal Land Rights, Sutherland Shire Council (SSC), Botany Bay City Council (BBCC), the Native Title Tribunal, Sydney Metropolitan Catchment Authority and La Perouse Local Aboriginal Land Council (LPLALC) requesting notification of any known Aboriginal groups that should be consulted for the assessment. DECCW identified La Perouse LALC, Yarrawalk/Tocumwal, La Perouse Botany Bay Corporation and Woronora Plateau Gundungara Elders Council as groups that should be contacted as part of the consultation process. BBCC identified La Perouse LALC, SSC identified Kurrallulla Aboriginal Corporation to be contacted to determine whether they had an interest in being involved in the consultation and assessment process.

A search of the National Native Title Tribunal (NNTT) Register for the Botany Bay and Sutherland Shire LGAs encompassing the study area was undertaken on 2 November 2010. The only native title claim which was identified as currently valid for the study area is that lodged by Gordon Morton, Angela Martin and Colin Rex Gale (previously from Darug Tribal Aboriginal Corporation (DTAC), and now associated with Darug Aboriginal Cultural Heritage Assessments (DACHA)).

The following groups confirmed their interest to be consulted on the project:

- Koomurri Management;
- La Perouse Botany Bay Corporation;
- Norma Simms, Woronora Plateau Gundungara Elders Council;
- Darug Aboriginal Cultural Heritage Assessments (who indicated that their area of interest in the project only included the Banksmeadow Terminal study area); and
- Ken Forster (Dharawal Tribal Custodian).

Each of these groups was provided with details of the proposed development and the draft heritage assessment methodology, on 17 November 2010. Comments regarding the proposed development and draft methodology were requested by 10 December 2010. Based in their requested level of involvement, stated cultural knowledge of the area, and experience in heritage assessments, invitations to participate in the field assessment at the Kurnell Refinery and Banksmeadow Terminal study areas were forwarded to:

- Dharawal Tribal Custodian;
- La Perouse LALC;
- La Perouse Botany Bay Corporation; and
- Woronora Plateau Gundungara Elders Council.

An invitation to participate in the field assessment of the study area at Banksmeadow Terminal was forwarded to Darug Aboriginal Cultural Heritage Assessments. Aboriginal community groups who participated in the fieldwork are listed in Table 3.1. Information provided by the Aboriginal community groups in the initial consultation phase, and during the field survey, has been integrated into the assessment, where appropriate. Although Dharawal Tribal Custodian and La Perouse LALC were invited to participate in the fieldwork, no representative was able to attend the field assessment.

Table 3.1 Aboriginal community fieldwork participants.

Aboriginal Community Organisation	Field Representative
La Perouse Botany Bay Corporation	Yvonne Simms
Woronora Plateau Gundungara Elders Council	Scott Franks
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton

The results of the survey and the proposed recommendations were discussed with representatives in the field, and no objections were raised. The draft Aboriginal heritage assessment report was provided to each group for review and comment. No written responses were provided by registered stakeholders within the 28 day feedback period. Verbal feedback was received from the La Perouse Botany Bay Corporation, who also responded on behalf of the Woronora Plateau Gundungara Elders Council. Information provided by the Aboriginal community groups has been integrated into the assessment and associated documentation where appropriate, and also attached in Appendix B.

4 Environmental Context

An understanding of environmental factors within the local landscape provides a context for analysing past human occupation and history of an area. The natural environment was, and is, of key importance to Aboriginal people for both cultural and spiritual reasons. It also provided a wealth of natural resources for subsistence, tool making and occupation. The characteristics of the natural environment often influenced occupation and subsistence strategies. For the purpose of cultural heritage management, the analysis of environmental factors is important as it contributes to the development of predictive models for archaeological sites, as well as providing a basis to contextualise the archaeological material and the interpret patterns of past human behaviour.

4.1.1 Geology

The geology of the Kurnell Peninsula is chiefly made up of quaternary alluvium, with Hawkesbury sandstone on the eastern-most margins. Hawkesbury sandstone dates from the Triassic period and is a component of the Wianamatta Group. It comprises quartz sandstone with some shales. The alluvium is from the more recent quaternary period and comprises gravel, swamp deposits and sand dunes (Rose, 1966).

The geology of the Banksmeadow area is chiefly of the quaternary period, and is made up of alluvium, gravel, sand, silt and clay. Some areas south of the Banksmeadow portion of the study area are situated on reclaimed land (Bryan, 1966).

4.1.2 Soils and Topography

The dominant soil type on the Kurnell peninsula is the Aeolian landscape known as the Kurnell soil landscape, characterised by deep (>200 cm) Podzols on dunes and in swales. Organic acid peats are found in swamps. The dominant soil materials include loose brown sand, single-grained with a sandy fabric (often as topsoil), grey brown mottled sand, brown soft sandy iron pan, loose yellowish brown sand and black sticky peat. Associated soil material occurs as black organic pan. On dunes, up to 80cm of brown sand overlies up to 15 cm of coffee rock and up to 130 cm yellow brand sand. On swales, up to 25 cm of brown sand overlies up to 25 cm black sticky peat, often resulting in perched water tables. The soils in this landscape have low to very low fertility, with very low erodibility. It has permanently high watertables, is highly permeable and is an extreme wind erosion hazard. It is not considered capable of urban development, or of being grazed or cultivated (Hazelton & Tille, 1990:86-89).

The dominant soil type at Banksmeadow is described as a 'disturbed terrain'. It is characterised as terrain disturbed by human activity, and are often areas that have been landscaped and artificially drained. Dominant soils often comprise loose black sandy loam, compacted mottled clay, variable transported fill and dark dredged muds and sands. These soils have been disturbed to a depth of at least 100 cm, with most of the original soil being removed, buried or greatly disturbed. The fertility of such soil landscapes are inherently low, with low erodibility, and variable surface movement potential (Chapman & Murphy, 1989:132-135).

4.1.3 Hydrology and Drainage

The low-lying nature and its location on Botany Bay is such that the Kurnell township is vulnerable to flooding, particularly as a result of tidal inundation. The majority of the township is below 3 m AHD, and does not possess a single drainage line with associated tributaries. The area's natural sandy soils allow for rapid infiltration until the groundwater table rises to the surface (Sutherland Shire Council, 2009:14).

The swamp systems were important to the natural drainage of the area by collecting runoff from higher ground. However, residential development and the construction of the oil refinery have had a significant impact on the hydrology of the area, with infiltration and storage areas reduced, and natural flow paths constricted. Prior to the construction of the oil refinery, the swamp covered a much greater area, allowing for more efficient drainage (ibid).

Although some of these issues have been addressed through pipelines connected to the swamps and the oil refinery, flooding remains an issue in the Kurnell township (Sutherland Shire Council, 2009:14-15).

The two major watercourses in Banksmeadow were the Cooks River to the west of the Banksmeadow study area and Bunnerong Creek to the east. The course of Cooks River was modified as a result of the construction of Mill Pond and Engineers Pond in the late nineteenth/early twentieth centuries, and later by Kingsford Smith international airport, whilst the mouth of Bunnerong Creek was modified as a result of land reclamation in the twentieth century.

In the 1970s, chlorinated hydrocarbons were identified in the groundwater by ICI Australia (now Orica Australia) following decades of industrial activity at its Botany plant. As a result, the Banksmeadow study area is within a primary exclusion zone for extraction of groundwater. Orica have developed an extraction and treatment program of the groundwater in an effort to prevent the toxic runoff into Botany Bay. Nearby suburbs are also restricted from operating bores domestically (Orica, undated).

4.1.4 Flora & Fauna

With a combination of wetlands, dry sclerophyll, dune and marine ecosystems, the Kurnell peninsula has a diverse range of flora and fauna, both marine and terrestrial. The Banksmeadow area also has a combination of dune and marine ecologies. Both areas contain a combination of introduced and native species of plants, birds, fish and animals which have flourished despite the level of disturbance to their respective habitats, however, both areas also have a number of threatened, vulnerable, protected and endangered species.

4.1.5 Land Use & Disturbance

The natural landscape of both in the Kurnell and Banksmeadow areas has been altered since European contact period by many activities.

Kurnell

The Kurnell landscape had been altered from the earliest times of European settlement. One of the earliest inhabitants, Thomas Holt, cut down most of the native trees in the mid nineteenth century, then put sheep then cattle to graze, thus eliminating the native shrubs and grass. Bare dunes thereafter dominated the landscape (Salt 2000:30-31). By the early twentieth century, sand extraction became a major industry in the area.

The construction and operation of the oil refinery in the 1950s also impacted on the natural landscape, involving the drainage of swamps, as well as the excavation of the dunes. As mentioned above, this resulted in the alteration of the natural hydrology and drainage of the area.

Banksmeadow

Early land uses in the Banksmeadow/Botany area were chiefly manufacturing/industrial, with market gardening, fishing, wool scours, tanneries, lime kilns and boat building all operating in the area. A

fishing village named 'Fishing Town' was established in the early 1800s approximately 2 km north of the Banksmeadow study area, and continued until the 1970s.

Although mainly an industrial area, land grants were made in the area from the 1820s. One of the earliest land grants was made to John Neathway Brown, who built his home Bunnerong House on the banks of Bunnerong Creek in 1823. Simeon Lord, an early convict-turned-successful entrepreneur, had his home, Banks House, built at Botany in the 1820s, where he also built the first mill in the area.

However, in more recent times, much of the area has been subject to heavy industrial uses, such as ICI Australia (chemical manufacture), Botany Paper Mills and the Bunnerong Power Station. In addition, in 1952-1955 Caltex built its oil terminal at Banksmeadow in order to transport oil from its Kurnell refinery. In the 1970s, Botany Bay was earmarked to become Sydney's prime sea cargo transport facility, which involved substantial land reclamation to construct the piers and dock facilities.

5 Aboriginal Archaeological Context

This section describes the nature of the known Aboriginal archaeology of the study area and is based on a review of the relevant archaeological reports and publications, as well as on information on previously recorded sites in DECCW's Aboriginal Heritage Information Management System (AHIMS) database. This review has been undertaken to assist in the development of a predictive model for potential Aboriginal sites within the study area and to establish a context for a comparative archaeological significance assessment.

5.1.1 Regional Context

Aboriginal occupation of the Sydney basin is likely to have spanned at least 20,000 years, although dates of more than 40,000 years have been claimed for artefacts found in gravels of the Cranebrook Terrace on the Nepean River (Stockton and Holland 1974; Nanson *et al* 1987; Stockton 1993). Late Pleistocene occupation sites have been identified on the fringes of the Sydney basin and from rockshelter sites in adjoining areas. Dates obtained from these sites are 14,700 BP at Shaws Creek in the Blue Mountain foothills (Kohen *et al* 1984), c. 11,000 BP at Loggers Shelter in Mangrove Creek (Attenbrow 1981, 2004), and c. 20,000 BP at Burrill Lake on the South Coast (Lampert 1971). The majority of sites in the region, however, date to within the last 3,000 to 5,000 years, with many researchers proposing that occupation intensity increased from this period (Kohen 1986; McDonald 1994; McDonald and Rich 1993). Such an increase in occupation intensity may have been influenced by rising sea levels, which stabilised approximately 6,500 years ago. Older occupation sites along the now submerged coastline would have been flooded, with subsequent occupation concentrating along, and utilising resources of, the current coastlines and the changing ecological systems of the hinterland (Attenbrow 2003).

A study of the Sydney region reveals that Aboriginal sites are distributed across the whole range of physiographic units and environmental zones, although certain types of sites may be more frequently associated with certain parts of the landscape (for example, shelter sites are particularly common in areas of Hawkesbury Sandstone), and different parts of the landscape contain different resources, which may be seasonally available or highly localised (Koettig 1996). Hence, shell middens are common in the Port Jackson region around the shores of bays, rivers, harbours and the coast, in areas where shellfish are available. Accordingly, the Port Jackson archaeological record is different to that of the Cumberland Plain of Sydney, partly because of the different resources in these areas (Attenbrow 1990:30).

In 1989-90, Val Attenbrow undertook Stage 1 of the Port Jackson Archaeological Project, which involved documentary research on previous archaeological work done in the catchment, detailed recording of registered sites and some field survey of areas where no sites had been registered. Stage 2 involved further research of regional issues through excavation of certain sites. Overall, Attenbrow classified six sites as having excellent research potential, 48 as having good potential, and 151 as having poor to nil potential. Attenbrow found, from a review of excavation work in the Port Jackson area, that Aboriginal people were living around the harbour foreshores gathering shellfish at least 4,500 years ago, that the number and species of shellfish represented in middens varied according to distance from the harbour mouth, and that a change from exploitation of predominantly cockle (*Anadara trapezia*) to predominantly oysters (*Saccostrea commercialis*) appears to have occurred over time in this region (Attenbrow 1990:30). She also found that most middens are located within 10 m of the high water level, and that burials were placed in open middens as well as in middens within rockshelters. In the same year, as part of an Aboriginal Sites Planning Study for the Lane Cove River State Recreation Area, the NPWS observed that regional excavations of coastal sites with midden layers indicated the exploitation of a variety of sea and land resources (NPWS 1990).

It should also be recognised that the archaeological evidence within any particular site can vary considerably in quantity and the range of evidence present, and that the number of sites or amount of archaeological evidence found in any specific area varies. Further, the distribution of presently recorded sites in some areas is unlikely to be indicative of the original distribution of Aboriginal sites and therefore may not be a reliable guide to the occupation history of that area (Koettig 1996). Accordingly, without professional archaeological assessment of an area, the sites most likely to have been recorded are those which are most obvious to non-professionals, such as rockshelters and art sites.

5.1.2 Local Context

A number of archaeological investigations have been conducted in the vicinity of both portions of the study area. Each of these studies has noted that both Kurnell and Banksmeadow are areas of high cultural significance to the local communities, and that the presence of known archaeological sites, the topography and history of both portions of the study area are consistent with general predictive models for the Sydney basin suggesting the presence of archaeological sites being encountered, particular with any subsurface works.

Kurnell

The traditional owners of the Kurnell Peninsula are the Gweagal people, a sub-group of the Tharawal language group. It is estimated that people have been living on the coast in the Sydney/Illawarra region for approximately 10,000 years (Sutherland Shire Council, undated).

On the Kurnell Peninsula, a number of middens were excavated in the Boat Harbour area in the 1970s, to the south of the current study area (see Dickson, 1971, 1974, 1975, 1980). One such stratified midden was carbon-dated between 470 ± 10 BP and 1950 ± 10 BP. The excavations also compared results with those of other known sites on the Kurnell Peninsula, particularly the artefact scatters in the dunes and the middens at the Landing Point. Dickson (1971) perceived more 'cultural connection' between the middens of Boat Harbour and the middens of the Landing Site than with the Bondaian artefact scatters in the dunes or the pre-Bondaian industry at Potters Point, mainly due to the paucity of stone artefacts identified at both midden sites. Later excavations of another nearby midden (Dickson, 1974) and a site at Potters Point (Dickson, 1980) came to the same conclusion.

Other investigations on the Kurnell peninsula have centred around the Quibray Bay area (e.g. Byrne (1987a, 1987b), and the National Park (e.g. Irish, 2007). The investigations of the Quibray Bay area to the west of the current study area were subject to sand extraction. They also involved the investigation of middens in the dune systems of the peninsula. Byrne notes the difficulty in relocating sites on the Kurnell Peninsula, largely due to the relatively rapid movement of the dunes due to prevailing onshore winds (Byrne, 1987a:1-2). The midden had been disturbed, chiefly by recreational off-road vehicles. Two trenches were excavated, one by 16 x 5cm spits, and one by 6 x 5cm spits. No artefacts were identified in the first trench, and two in the second. These artefacts were located on a dark sand layer, possibly a former land surface. No midden material was recovered. Byrne concluded that this site should be re-categorised as an artefact scatter rather than a midden (ibid:7). In a separate investigation at Quibray Bay, a suite of 11 middens were investigated, and had been similarly disturbed by vehicles. Each midden was excavated by a 50cm x 50cm trench in 5cm spits. Midden material excavated included *anadara*, *pyrazus* and *ostrea* shell, with some flaked stone.

The investigation of the Kurnell Meeting Place precinct entailed the excavation of a number of shovel test pits across the precinct to determine the subsurface archaeological potential of the area. The result of these investigations found that some Aboriginal archaeological remains were *in situ*, the material recovered was nonetheless informative. An *in situ* midden was also located near the Cook Stream Dam, and recommendations were made to avoid the area where possible.

The archaeological investigations carried out in the vicinity of the Kurnell portion of the study area demonstrate that despite disturbance across the peninsula, some *in situ* archaeological deposits may be encountered during any excavation work. However, given the nature and level of disturbance in the study area, this is considered unlikely.

Banksmeadow

Only a small number of Aboriginal archaeological investigations have been conducted in the vicinity of the Banksmeadow portion of the study area, although a number of sites have been identified, particularly in the Yarra Bay area.

In the immediate vicinity of the Banksmeadow portion of the study area, Navin Officer (2003, 2006) have noted that although no archaeological sites are located within the study area, a number of sites are present within the general area. Rich (1986) excavated a midden at nearby Yarra Point and noted the high disturbance of the site, but concluded that the site was significant based on rarity. In this case, a large artefact scatter was located in association with the midden. Rich also noted the significance of the Botany Bay sites to the local Aboriginal communities.

Given the heavy disturbance in the area, particularly as a result of the 19th century lime-burning industries and 20th century land reclamation, it is considered unlikely that any *in situ* archaeological deposits would remain in the study area.

5.1.3 Aboriginal Heritage Information Management System (AHIMS) results

A search of the AHIMS database identified 88 registered Aboriginal sites recorded in vicinity of the two study areas (see Table 5.1). As can be seen in Figure 3.1, there are no sites noted within the immediate vicinity of the Banksmeadow portion of the study area. In the Kurnell portion, however (see Figure 4.1), there is a registered site within 100m-150m from the study area.

Table 5.1: AHIMS data for the local area (AHIMS search conducted on 01/11/2010)

Site types	Count	Percent
Burial/s, midden	2	2.27%
Burial/s, midden, shelter with deposit	1	1.14%
Burial/s, shelter with midden	1	1.14%
Midden	37	42.05%
Midden, mound (oven)	1	1.14%
Midden, open camp site	6	6.82%
Artefact site	26	29.55%
Rock engraving	11	12.50%
Shelter with art	1	1.14%
Shelter with midden	2	2.27%
TOTALS	88	100%

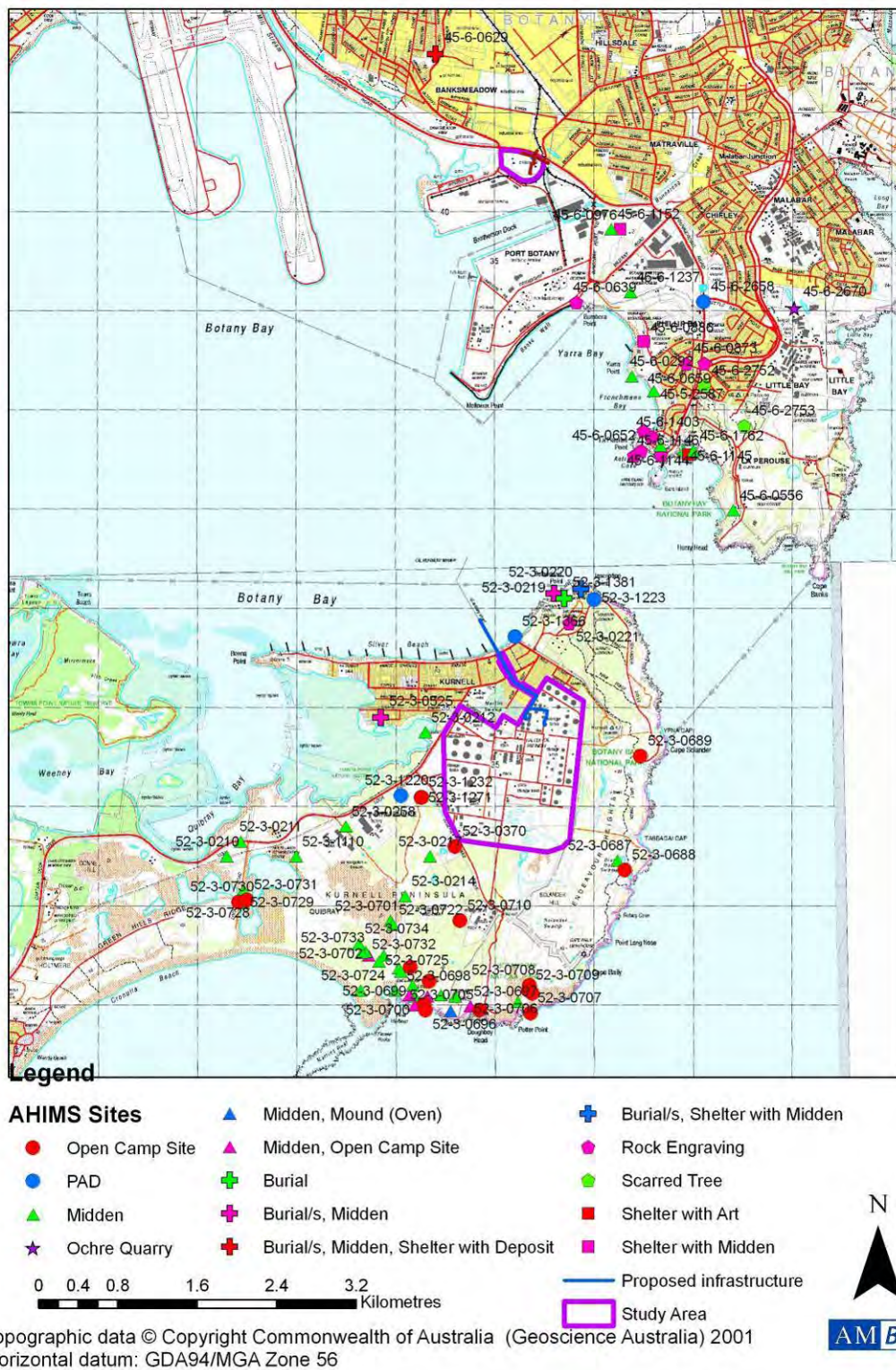
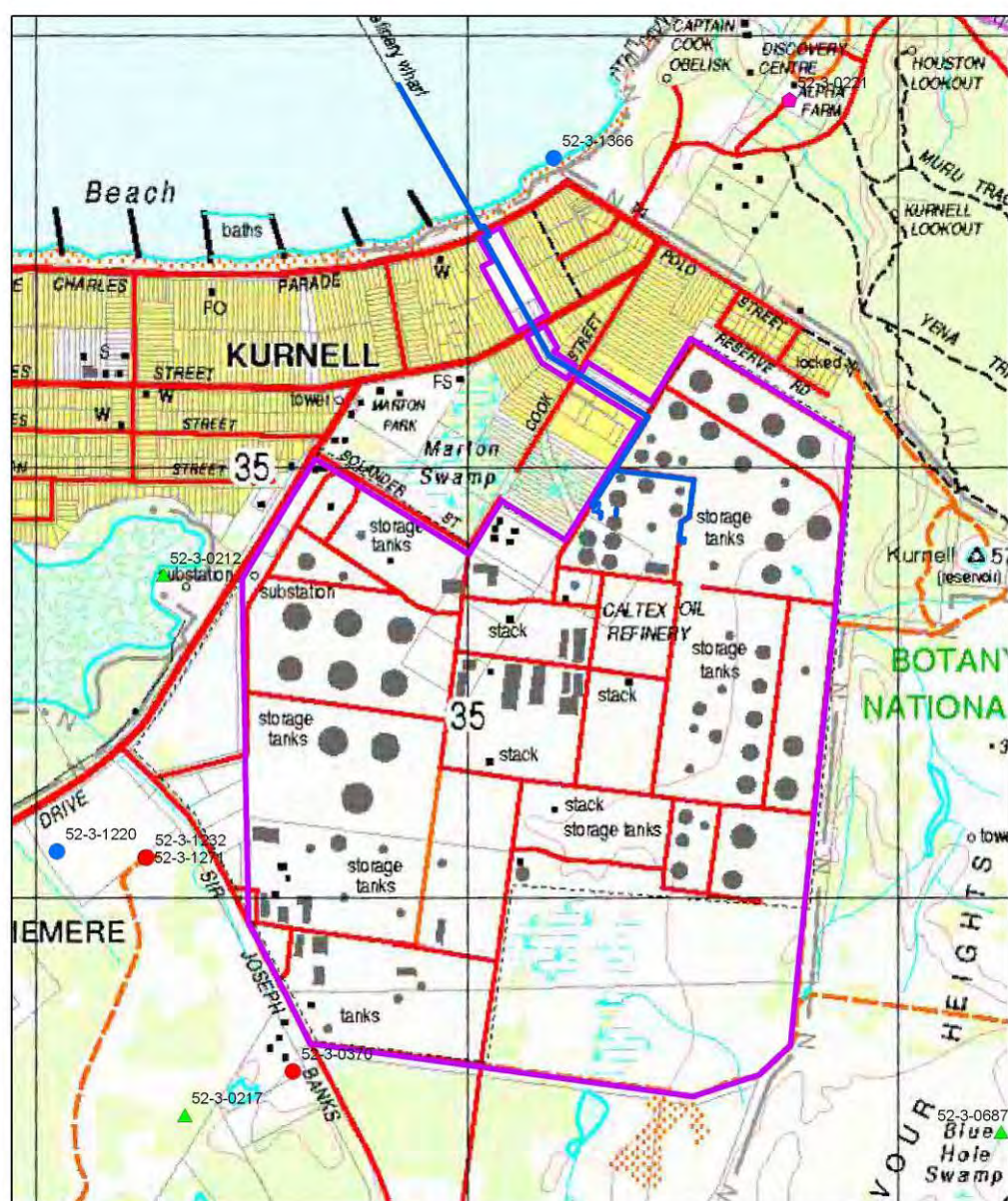


Figure 5.1: AHIMS sites in the vicinity of the study area



Legend

- | | | |
|---------------------------|--------------------------|--|
| — Proposed infrastructure | ★ Ochre Quarry | ✚ Burial/s, Midden, Shelter with Deposit |
| ▭ Study Area | ▲ Midden, Mound (Oven) | ✚ Burial/s, Shelter with Midden |
| AHIMS Sites | ▲ Midden, Open Camp Site | ◆ Scarred Tree |
| ● Open Camp Site | ◆ Rock Engraving | ■ Shelter with Art |
| ● PAD | ✚ Burial | ■ Shelter with Midden |
| ▲ Midden | ✚ Burial/s, Midden | |

Topographic data © Copyright Commonwealth of Australia (Geoscience Australia) 2001
Horizontal datum: GDA94/MGA Zone 56

AMBS

Figure 5.2: Detail of AHIMS sites in the vicinity of the Kurnell study area

5.2 Aboriginal Heritage Site Predictive Modelling

Archaeological models are used to provide a framework for assessing scientific significance and are constructed on the basis of environmental context, AHIMS data and previous archaeological investigations. On the basis of the archaeological sites registered in the area, and a review of previous

archaeological studies, the potential presence of Aboriginal sites within the landscape of the study area can be modelled and predictive statements can be made about the types of sites likely to occur.

5.2.1 Sites likely to be present

Shell Middens

Shell middens result from Aboriginal exploitation and consumption of shellfish, in marine, estuarine or freshwater contexts. Middens may also include faunal remains such as fish or mammal bone, stone artefacts, hearths, charcoal and, occasionally, burials.

This is the most common site type located in the vicinity of the study area, particularly near Kurnell. As can be seen from the AHIMS data above, the overall percentage of midden in the study area, either alone or in association with another site type, is 55.69%.

Artefact Scatters and Isolated finds (open camp sites)

Artefact scatters and isolated finds (also known as open camp sites, and combined in Table 5.1.1 as 'Artefact site') are likely to be present in the local landscape. These sites usually comprise flaked stone artefacts, although ground stone artefacts, bone or shell, may also occur. Such sites are generally interpreted as camp sites; however they can also represent other types of activity areas. Aboriginal campsites occupied during the post contact period (after 1788) may include glass, ceramic and metals. Artefact sites may also occur as artefact scatters (containing more than one artefact), or may occur as isolated finds (comprising a single artefact). These sites indicate Aboriginal occupation of the area and, in some cases, may be associated with a potential archaeological deposit (PAD). Aboriginal campsites are generally associated with resource zones within the local landscape.

Rock Engraving

Rock engravings are petroglyphs, i.e. figures etched into stone, often depicting animals, people and/or symbols. There are examples of rock engravings found across Australia, with each region exhibiting its own style and motifs.

There are a number of rock engravings found near the study area, and generally along rocky headlands along the eastern coast of NSW.

Rock shelters (with or without art)

A common site type in many parts of the country, rock shelters are naturally formed hollows or overhangs in a cliff, usually found in coastal, mountainous or hilly terrain. Rock shelters are often habitation sites, either transient or semi-permanent. Some rock shelters also contain examples of rock art, artefact scatters and/or middens.

There are three shelters recorded near the study area.

6 Historic Context

6.1 The Kurnell Peninsula

6.1.1 Peopling Australia

Captain Cook arrived in Botany Bay on 28 April 1770, on HM Bark *Endeavour* during his three year voyage, an aim of which was to observe the transit of Venus at Tahiti in 1769. An objective was also to verify *Terra Australis Incognita* (the unknown southern land). Cook was the first European to have set foot on the east coast of Australia and his landing place at Kurnell is known as the 'birthplace of the nation'.

When the *Endeavour* sailed into Botany Bay, Cook noted:

...several of the Natives and a few Hutts; Men, Women and Children on the South Shore abreast of the ship, to which place I went in the Boats in the hopes of speaking with them, accompanied by Mr Banks, Mr Solander and Tupia (a Tahitian brought along as an interpreter). As we approached the Shore they all made off, except 2 men, who seem'd resolved to oppose our landing. As soon as I saw this, I ordered the boats to lay upon their Oars, in order to speak to them; but this was to little purpose, for neither us nor Tupia could understand one word they said (Cook, 1770).

After an initial skirmish with spears thrown and muskets fired, Cook landed with Joseph Banks and his associate Daniel Solander. The Aboriginal men retreated to bushland, and Banks being of the opinion that their spears may have been poisoned, Cook elected not to follow. After unsuccessfully searching for water, Cook returned to the *Endeavour* and sailed to the northern shore of the Bay, where he found a fresh water source. The following day, Cook had his men dig on the sand, where he found a fresh water source sufficient to water all of the ships. That watercourse is now known as Cook's Stream.

Based on Cook's recommendations, the First Fleet sailed from Portsmouth on 13 May 1787 and arrived at Kurnell in January 1788. Some land was cleared, but due to the sandy soil and lack of fresh water, the permanent settlement was established to the north on Port Jackson, and the colony of Sydney was established. The Kurnell Peninsula was not settled until 1815, when James Birnie, a retired sea captain, was granted 700 acres (Salt 2000:25).

6.1.2 Building settlements, towns and cities

Land Tenure

James Birnie had intended to build a whaling station on his land at Kurnell; however, he established a farm, market garden and dairy, which he called Alpha Farm, and the produce was transported to the Sydney markets. He also built a three-roomed homestead, which he named *Curnell*, after the Aboriginal name for the area, as he heard it. The farm was self sufficient, vegetable gardens and orchards as well as the dairy, irrigated from Cook's Stream. When Captain Cook camped at Kurnell, he noted the number of small canoes used for fishing in the Bay. The first commercial fishing industry commenced in Botany Bay in 1790, mainly operating from the north shore of Botany Bay; however, isolated fishing shanties existed on the Kurnell side from its earliest years. James Birnie, had his caretaker send fish to the markets each day with other Alpha Farm produce. The manager also cut a shipping dock into the Botany Bay shore for harbouring boats at high tide (Salt 2000:25, 37, 77).

James Birnie, was declared insane in 1828, and his executors sold Curnell and Alpha Farm to John Connell, who owned the neighbouring land. Connell erected Alpha House on the foundations of

Birnie's Kurnell, which was occupied by John Connell Jnr, who lived at Alpha House with his two nephews. John Connell Jnr began clearing and selling the ironbark, turpentine, blackbutt, mahogany and red cedar from both Kurnell and the Hacking River before the 1840s. He had a canal dug to Woollooware Bay, floated the timber into Botany Bay, from where it was transported to Sydney. (Salt 2000: 25, 26)

John Connell Laycock, one of John Connell's nephews, inherited the Kurnell estate in 1849. By 1860, he had mortgaged most of his inheritance to a fellow Member of the Legislative Assembly, Thomas Holt. Following a series of financial disasters in 1861, Laycock was forced to sell his entire estate to Holt, which included the entire Kurnell peninsula, with the exception of the Government reserve on the eastern most portion of the headland (Salt 2000:28) (Figure 6.1).



Figure 6.1: Detail of Sutherland Parish map, undated, showing Kurnell peninsula land holdings (LPMA Parish Map Preservation Project No. 14033901).

In 1882, Richardson & Wrench offered a subdivision of the Holt Sutherland Estate, known as The Maritime Township of Kurnell. The blocks were small, and were envisaged as weekend blocks rather than residences. However, the village did not begin to take its current form until after WWI. It was proclaimed the Village of Kurnell in 1933 (Salt 2000:123, 127).

6.1.3 Early Industrial Development

Thomas Holt was provided with convicts, runaway sailors and Aborigines to work on his various estates. He retained the Connell overseer, Mr Justice, but also appointed a Gweagal man, William Rowley, as his foreman (Salt 2000:29).

In 1868, Holt intensively cleared the Kurnell property of scrub and timber, and replaced it with imported grass seeds from Germany. He divided the land into 11 paddocks, with split-rail fences (some still visible at Towra Point), divided each of those lots with brushwood fences to make 60 smaller paddocks, and put sheep on the newly grassed land. When dingoes killed thousands of his sheep, a shooting party claimed to have killed 300 dingoes in the area. An outbreak of footrot saw

over 1,300 infected sheep being destroyed. Holt put cattle on the land; however, they devoured the grass to the extent that bare patches of the underlying dune sand increased. By 1900, the sand dunes of Kurnell were visible following years of deforestation and grazing. In an effort to control the movement of the dunes, Holt imported buffalo grass from America to supplement the native and imported grasses he had planted (Salt 2000:31).

The exposure of the dunes through deforestation led to the development of the sand extraction industry in Kurnell. The first large scale operations commenced in the 1930s, and whilst the NSW Government has publicly stated its commitment to phasing out sand extraction at Kurnell, the industry continues to operate (ABC, 2009).

Thomas Holt also established a number of oyster breeding grounds in Weeney and Gwawley Bays. By the 1850s a number of shanties were built on the Kurnell shoreline, and the fishermen's salted catch was shipped from there to the markets in Sydney (ibid). By the 1880s, the area became popular as a holiday destination, primarily because of the quality of fishing and hunting available (Salt 2000:30).

Transport

Access to Kurnell was always difficult and the peninsula was usually reached by boat. From the late 1800s, the only public transport available to residents was the ferry services. One service ran from Sans Souci to Kurnell, whilst another ran from Kurnell to La Perouse. A wharf was constructed near the Cook's monument to service the ferries, which was destroyed by storms in 1974.

The only road to and from Kurnell was a sandy track, maintained by the local residents and, from 1947, the Latta Bus Company, which operated a bus between Kurnell and Cronulla. The track ran along Botany Bay and over the sandhills, and the bus would frequently get bogged in the drifting sand, requiring the driver to dig the bus out, and passengers to help push the bus. The track was also subject to inundation during the spring's king tides (Salt 2000:97112).

In the early 1950s, when Caltex commenced building the oil refinery, a sealed road was also constructed, and the ferry service became less frequent, until ceasing in 1965 (Salt 2000:103).

6.1.4 Caltex

The earliest developments of an oil-related industry in Sydney were the Australian Mineral Oil Company at Kerosene Bay (Balls Head) and the Colonial Oil Company at Pulpit Point during the second half of the nineteenth century. The facility at Pulpit Point ultimately became the property of Mobil Oil Australia in 1952 until the late 1970s when it was developed for residential use. The primary Shell Oil processing plant was established on Greenwich Point, Gore Cove, the Shell Refining (Aust.) Terminal, from the early twentieth century. British Petroleum (BP) and Caltex established a Storage and Coal Loader at Ball's Head, Berry's Bay, which had ceased operation by the 1990s (GML 2002:5).

In 1936, the Texas Oil Company (Aust.) Limited (Texaco) merged with Standard Oil Company of California (Socal) to become Caltex. The merger ensured that the company could operate in Australia, particularly during the war years, as at the time the Australian government prohibited wholly owned foreign companies from operating in the country. Texaco had, in 1928, acquired Ballast Point, Balmain, which was established as a storage facility and was the company's first coastal terminal. The facility was expanded to include the only Grease and Lube Oil Blending plant in Australia, using equipment designed in the US. Petrol storage ceased when the company's refined oil terminal opened at Banksmeadow, Botany Bay. In 2002, Caltex sold the Ballast Point site, which has been developed as open public space.

On 25 July 1951, The Age reported:

Move to Build Oil Refinery – Caltex Oil (Australia) Ltd will ask for permission to build a refinery in Australia with a capacity to produce 750,000 gallons of refined oil a day. A spokesman for the company who announced this tonight said Caltex was examining sites for the refinery, which would cost about £25,000.00. The refinery would take in one million gallons of crude oil a day and produce petrol and by-products.

In 1951, Caltex approached the Cumberland County Council for permission to establish a major oil refinery at Kurnell, and in 1952, permission was granted. Prior to construction, Caltex established a subsidiary company known as the Australian Oil Refining Pty Ltd, which became Caltex Australia, an Australian company operating independently of the parent company. In May 1995, the petroleum refining and marketing assets of Caltex Australia and Ampol Limited were merged.

During the construction of the Australian Oil Refinery site between 1952 and 1956, a Dutch dredging company brought a team of Dutch workers to operate the dredges. A residential hostel was erected near Bonna Point, Kurnell to house the workers. Following the completion of the Refinery, the Dutch company moved on to its next project, but its workers and their families elected to stay and settle permanently in Kurnell. A significant Dutch community remains today (Salt 2000:99-100).

During the peak of construction of the Kurnell Refinery, approximately 3,000 people were employed to drain swamps, clear scrub and install water and sewerage facilities. At the same time, a pipeline was constructed between Kurnell and Banksmeadow in order to transport the refined oil to the dockyards for sea transport. A wharf approximately a kilometre long was also constructed, capable of berthing ships with a cargo capacity of 60,000 dead weight tonnes was constructed projecting out into the Bay, and Captain Cook Drive was also constructed (Salt 2000:99-101).



Figure 6.2 1955 aerial showing the layout of the refinery site, with the wharf in Botany Bay, during the years following construction (*Source: SSC*)

In 1961, the Caltex Lubricating Oil Refinery was constructed adjacent to the Kurnell refinery (Figure 6.3). This refinery produced oils including greases, naphthenic products and heat treatment and waxes used in waterproofing, building products and cosmetics (Salt 2000:102).



Figure 6.3: 1961 Aerial photo showing Australian Oil Refinery and the adjacent Caltex Lubricating Oil Refinery (left).

The Industrial Development of Banksmeadow

Although the Botany Swamps was Sydney's third water source, after the Tank Stream and Busby's Bore, the early development of Botany was as an industrial area. In 1848, the NSW Parliament passed an Act banning all noxious industries in Sydney, with the result that these industries moved to the Botany area. In 1815, Simeon Lord had already built a small dam across a stream at Botany Swamps for the first woollen mill, creating Mill Pond. By the middle of the nineteenth century Simeon Lord and others had established a series of mill ponds and industries across the Botany, Waterloo and Alexandria areas. The banks of Shea's Creek were lined with wool stores and wool washing, tanneries, foundries, brick works and soap making factories. Transportation of goods to the Sydney market was arduous and an alternative was planned. From the late 1880s Shea's Creek was excavated to create a canal, Alexandra Canal, suitable for shipping to transport goods from the factories to Botany Bay. In 1902, Botany was declared a centre of 'Noxious Industries' and some industries, particularly the tanneries, began moving west to St Mary's.

By 1914, there were 40 tanneries and wool scouring operations within the Botany Municipality (Sydney Morning Herald, 1914). Another significant industry in the area was the paper mill, known variously as the Australian Paper Mill, the Botany Paper Mill and APM Botany, was established in 1901 by the Federal Paper Mills (later Amcor), and continued to expand until well into the twentieth century (GBA, 2000: 9). Although no longer operating, its owners, Amcor, are currently refurbishing the site, which it envisages to be operational by the end of 2011 (Amcor, 2010).

The 1920s and 1930s saw a rise in manufacturing industries, such as the Davis Gelatine factory and the Kellogs plant, however fellmongering; the preparation of sheep skins for tanning, was still the dominant industry of the area (SMH, 1914). In 1929 a power station was also built at Bunnerong, approximately 1 km to the southeast of the Caltex Banksmeadow Terminal. The coal-burning power station supplied NSW with approximately one third of its electricity until the 1960s, when larger power stations were built to meet the State's increasing power needs. The power station was kept as a stand-by facility until its gradual demolition in 1979-1994 (Randwick City Council, undated). During the 1940s, heavier industries such as ICI were established in the area (Figure 6.4).



Figure 6.4 1943 aerial showing the extensive industrial development of the area. The future Caltex Terminal is circled.

Transportation of goods and produce was facilitated by the opening in 1925 of the Botany Goods Line. It was constructed as an extension to the Metropolitan Goods Line to transport offal from the Homebush abattoirs to the tanneries in Botany. During WWII the government built Commonwealth sidings serviced many of the local industries; Hardies, Stewart & Lloyd's steel distributors, Gelco (gelatine manufacturers) and Kellogg's, as well as the Ampol, Total, BP and Esso oil companies. The Botany Marshalling Yards, adjacent to the Bunnerong Power station, was expanded to cater to the private sidings: Australian Oil Refineries (Caltex), Golden Fleece and Esso (Oakes 2008:6-14) (Figure 6.5).

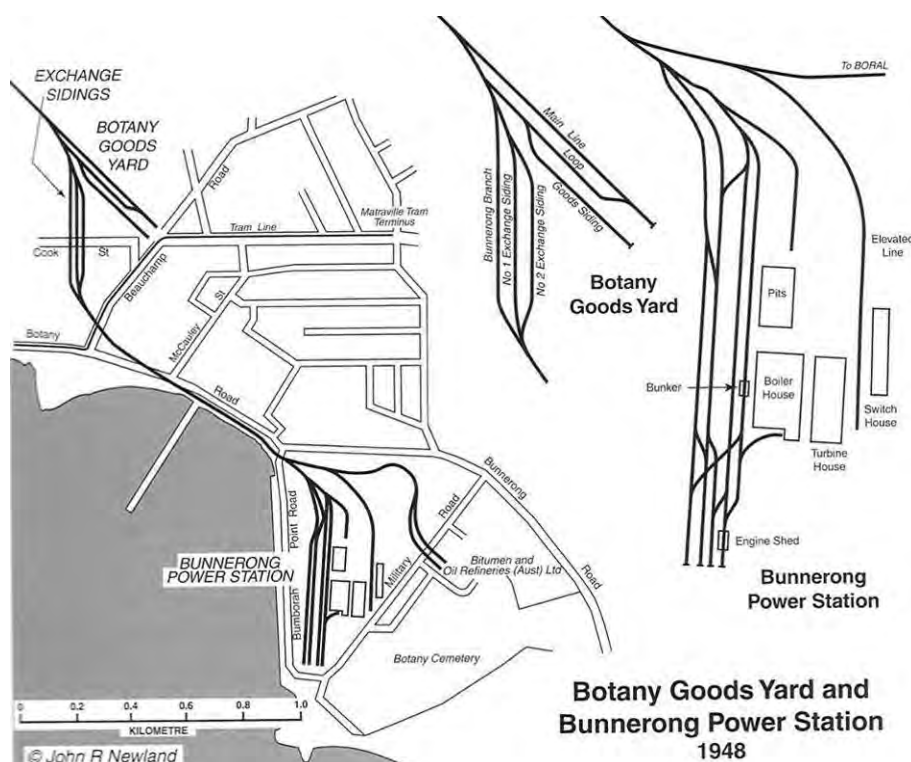


Figure 6.5 The Botany Marshalling Yards (Source: Oakes 2008:17)

During the 1940s, the Bitumen and Oil Refineries (Australia) Limited (BORAL), in partnership with Caltex, built their first refinery at Matraville, and in the 1950s Australian Oil Refineries (a subsidiary of Caltex) built the oil terminal on its present site at Banksmeadow (Neve, 1993:7). Currently, a number of subsurface pipelines connect the Banksmeadow Oil Terminal to the Kurnell Oil Refinery, the Oil Terminal at Silverwater, Sydney Airport and the Newcastle fuel line (URS, 2004:10-4).



Figure 6.6: Detail of map for village of Banks Meadow – purple shading shows the Australian Oil Refinery in 1956 prior to land reclamation (LPMA: Map No. 14058101 Parish Map Preservation Project).

The post-war period also saw Port Botany develop as a preferable cargo port to Sydney Harbour. In the 1970s major land reclamation took place, enabling the development of the dock at Port Botany, which in turn has led to the establishment of container and transport facilities. Sydney Ports Authority are currently in the process of redeveloping Port Botany to expand the port facilities to include additional berthing facilities, community facilities such as footpaths and slipways, environmental works such as the rehabilitation of Penrhyn Estuary and infrastructure to support the expansion. It is anticipated that these facilities will become operational from 2012 (Sydney Ports Authority, undated).

7 Physical Assessment

The potential for Aboriginal and historic heritage issues associated Caltex Kurnell Refinery and Banksmeadow Terminal were assessed during a survey of the two sites on Monday 13 December 2010. Chris Langeluddecke, AMBS Project Manager, undertook the Aboriginal assessment. AMBS Senior Project Manager, Jennie Lindbergh, assessed both sites and listed heritage items within the immediate vicinity of the proposed works to determine the potential for impacts on identified heritage values.

For safety reasons, photography at both sites is limited. At the Kurnell Refinery, photography was permitted from road areas only, while photography within the Banksmeadow Terminal is prohibited.

7.1 Aboriginal Heritage

7.1.1 Survey Methodology

An Aboriginal heritage field survey of the study area was undertaken on 13 December 2010 by AMBS archaeologist Christopher Langeluddecke, accompanied by Aboriginal community representatives Yvonne Simms of La Perouse Botany Bay Corporation, Scott Franks of Woronora Plateau Gundungara Elders Council and, at Banksmeadow Terminal only, Gordon Morton of Darug Aboriginal Cultural Heritage Assessments. The fieldwork methodology, context for the assessment and available mapping information were discussed with the Aboriginal community representatives prior to fieldwork. Maps of the study area and proposed development were made available to all participants to guide the field assessment. The findings of the survey and recommendations were discussed with all representatives in the field, and any input received from the representatives during the field survey has been incorporated into this assessment.

The aims of the survey were to:

- archaeologically survey all potential development impact areas;
- record any Aboriginal heritage sites/objects within the potential impact areas;
- determine any areas of potential Aboriginal archaeological sensitivity within the potential impact area; and
- identify places or areas of cultural significance to the Aboriginal community.

Where Aboriginal artefacts were observed within the study area, notes were to be made regarding their type, size and material, and the site was to be recorded, including the environmental setting and details of any disturbance to archaeological material in the site's vicinity. Geocentric Datum of Australia (GDA) coordinates were taken by a handheld Garmin Oregon 300 GPS unit, and photographs of sites, artefacts and the general study area were taken using a Pentax K10 digital SLR camera.

7.1.2 Survey Results – Kurnell Refinery

No Aboriginal heritage sites, objects, places or areas of archaeological potential were identified within the Kurnell refinery study area. The Caltex Kurnell refinery is a well-established industrial area, and contains no undisturbed natural landforms. The area has been levelled and built-up to allow construction of the refinery, and no original soil landscapes are visible within the refinery boundaries.

Survey coverage data was gathered during the archaeological field survey to allow quantification of ground exposure and visibility, as adverse observation conditions can affect the detection of Aboriginal sites and material. This data does not reflect the extent of the area that was physically surveyed, but represents an estimate of the area of ground surface examined, and presents an estimate of the effectiveness of the survey, given environmental conditions and ground visibility. Survey coverage

data is presented in accordance with the Guidelines for Archaeological Survey Reporting section of DECCW's *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*. Survey coverage data for the current study is presented in Table 7.1, and survey units are described in detail below.

Table 7.1 Kurnell Refinery study area survey coverage.

Survey Unit	Landform	Survey unit length (m)	Survey unit width (m)	Survey unit area (m ²)	Visibility (%)	Exposure (%)	Effective coverage area (m ²)	Effective coverage (%)
1	Flat	220	10	2,200	20%	5%	22	1%
2	Flat	170	10	1,700	10%	20%	34	2%
3	Flat	270	10	2,700	10%	20%	54	2%

Table 7.2 Kurnell Refinery landform summary.

Landform	Landform area (m ²)	Area effectively surveyed (m ²)	Percent of landform effectively surveyed (%)
Flat	6,600	110	1.7%

Survey Unit 1 – Road 7

Survey Unit assessed an area within the boundary of the Kurnell Refinery, where it is proposed to install the new pumping facilities and approximately 220m of pipeline. The subsurface pipeline, approximately 10 inches in diameter, will be installed adjacent to a service road identified as Road 7, following the refinery boundary. The landform into which the pipe will be installed is entirely constructed, and is approximately two metres higher than the natural ground level, visible outside the refinery boundary 20m to the east (see Figure 7.1 and Figure 7.2).



Figure 7.1 Kurnell pipeline location within refinery grounds. The proposed pipeline will be installed to the left of the road. View to north east.



Figure 7.2 Kurnell pipeline location within refinery grounds. The proposed pipeline will be installed to the east of the road. View to south west.

Survey Unit 2 & 3 – Established Pipeline Right of Way

Survey units 2 and 3 assessed a right of way owned and maintained by Caltex, within which underground pipelines have been installed since the construction of the refinery. A number of pipelines are currently installed within an area approximately 20 m in width, and the soils within the easement have been repeatedly excavated and reworked to allow installation and maintenance since the 1950s. The proposed pipeline installation will be installed within the previously disturbed area, directly adjacent to the currently installed pipes.

The easement is 50 m wide in Survey Unit 2, and 80 m wide in Survey Unit 3. It is a levelled, cleared and grassed area between residential properties, leading from the refinery to Kurnell Wharf, and contains a single unsealed access/maintenance track (see Figure 7.3 and Figure 7.4).

Highly broken and fragmentary shell material was observed in small exposures adjacent to the maintenance track. This shell material on the surface of highly disturbed soils that have been repeatedly reworked to allow access to the underground infrastructure, and it is not possible to determine if they represent cultural or natural shell deposits. Given that the area has been subject to initial clearing and levelling of the natural landform followed by repeated maintenance excavations, it is likely that any cultural deposits that were present in this location have been highly damaged and distributed across the landscape, and are unlikely to retain any archaeological integrity or significant archaeological information.



Figure 7.3 Kurnell pipeline location within easement. View to south east.



Figure 7.4 Kurnell pipeline location within easement. View to north west.

7.1.3 Survey Results - Banksmeadow Terminal

No Aboriginal heritage sites, objects, places or areas of archaeological potential were identified within the Banksmeadow Terminal study area. The Caltex Banksmeadow Terminal is a well-established industrial area, and contains no undisturbed natural landforms. The area has been levelled and built-up to allow construction of the terminal, and no natural soils are visible within the refinery boundaries. The entirety of the proposed development impact area is covered by concrete, asphalt or small maintained lawn areas, and there was no ground visibility or exposure observed during survey.

7.2 Historic Physical Analysis & Impact Assessment

The Caltex Kurnell Refinery and Banksmeadow Terminal were established during the 1950s and as such are well established industrial complexes with an ongoing tradition of maintenance and upgrades (see Figure 7.1). Both sites are characterised by the layering of industrial infrastructure associated with oil refining and transfer.

7.2.1 Caltex Banksmeadow Terminal

The Banksmeadow Terminal is entered via Penrhyn Road to the west, and is defined by the Patrick Container terminal to its west and south, the Sydenham–Botany Bay Goods Line and Botany Road to the north. The terminal sits within a heavily industrialised landscape. The scope of works comprises the construction and installation of booster pumps, one coalescer, valves and pumps, and associated infrastructure (see above Section 1.3). These facilities are to be installed wholly within the facility and will not be visible from beyond the site perimeter, other than transient views from Botany Road, which is elevated above the proposed works site. The pipeline to the Banksmeadow Terminal from the Kurnell Refinery is not being upgraded or altered in any way and as such, no other works are proposed for the site.

The Botany Marshalling Yards on Beauchamp Street is the only listed heritage item within the near vicinity of the Banksmeadow Terminal; however, its location beyond Botany Road is such that there will be no impact on its identified heritage significance.

There are no heritage constraints on the upgrade project.

7.2.2 Caltex Kurnell Refinery

The Kurnell Refinery is a large industrial site, accessed via Solander Street, occupying a large area of the Kurnell Peninsula (Figure 7.5). To the north, south and east is the Botany Bay National Park and to the west, Quibray Bay incorporating Towra Point Aquatic Reserve Sanctuary Zone.



Figure 7.5 View to the west of Kurnell refinery from Solander Road to two fluid catalytic crackers.

The scope of works within the refinery includes the installation of two transfer pumps, two coalescers, various valves and associated infrastructure adjacent to Tanks 166 and 168 on Road 7 (Figure 7.6).



Figure 7.6 View along Road 7 to the south with Tank 157 to the left and Tank 168 to the right (left), and north, with Tank 165 to the right (right).

The replacement KBL will run from the proposed pumps along Road 7 to join existing pipelines adjacent to Tank 202 (Figure 7.7). The pipeline to Kurnell Wharf is within a right of way aligned to the northwest passing across vacant Caltex land and beneath Cook Street, Captain Cook Drive and Prince Charles Parade (Figure 7.7 and Figure 7.8). On Prince Charles Parade, opposite the Caltex Refinery Wharf is a Caltex facility and yard, which marks the end of the pipeline right of way (Figure 7.9).



Figure 7.7 The existing pipelines adjacent to Tank 202 on Road 7.



Figure 7.8 View northwest to Cook Street from Road 7 of the pipeline alignment.



Figure 7.9 The Caltex facility on Prince Charles Parade.

The pipeline arrives at the Caltex Oil Refinery Wharf, which juts into Botany Bay for approximately 1 km from Silver Beach, directly to the south of Molineaux Point on the opposite side of the Bay (Figure 7.10).



Figure 7.10 The Caltex Oil Refinery Wharf at Silver Beach.

The Silver Beach and Roadway, identified as a heritage item on the Kurnell SEPP, is reminiscent of beachside holiday developments of the post-war era (Figure 7.11 and Figure 7.12).



Figure 7.11 View to the east along Prince Charles Parade. Note imprinted patterns in the footpath.



Figure 7.12 View west along Prince Charles Parade.

Further to the east is an entry to the Botany Bay National Park, and National Heritage listed Kurnell Peninsula Headland, within which are the majority of the heritage items listed on the Kurnell SEPP on Cape Solander Drive (Figure 7.13 and Figure 7.14).



Figure 7.13 Entry to Botany Bay National Park and Kurnell Peninsula Headland. The Cook Obelisk, marking Captain Cook's Landing Place, is on the headland beyond.



Figure 7.14 View to the Cook Obelisk.

7.2.3 Impact Assessment – Kurnell Refinery

The Caltex Kurnell Refinery was established in 1952 as the Australian Oil Refinery, which is identified as a heritage item on the SEPP for Kurnell Peninsula. Also, within the vicinity of the Kurnell Wharf are the nationally significant Kurnell Peninsula Headland, and associated Cook's Landing Place, as well as the locally listed Silver Beach and roadway. The scope of works associated with the proposed upgrade and installation of the KBL comprise three discrete areas, which are considered below:

1. The construction of a facility to house newly installed pumps and valves and associated infrastructure, which is consistent with the ongoing requirements of an operational oil refinery. The construction is wholly within the boundary of the Refinery site and as such there will not be an adverse impact on the identified historic and technical significance of the site.
2. Excavation of the existing pipeline trench within the existing right of way, laying the new KBL into this trench, and re-covering, will not expose significant archaeological relics. There will be a short term impact on the amenity of the local environment, which will be mitigated following works and natural re-turfing of pipeline trenches.
3. The proposal to run an additional new pipeline along the Caltex Refinery Wharf has the potential to have an adverse impact on the national heritage values of the Kurnell Peninsula Headland and the historic and aesthetic values of Cook's Landing Place and, the local heritage significance of Silver Beach and roadway.

The EPBC Act protects items and places on the NHL from actions that will have, or are likely to have a significant impact on the national heritage values of the item or place. Where an action is deemed to be significant the matter must be referred to the Minister who will decide whether the action requires further assessment, and if necessary approval under the EPBC Act. The Kurnell Peninsula Headland is in the vicinity of the Caltex Refinery Wharf and as such the potential for adverse impacts on the national heritage values of this place must be considered.

Adding a new pipeline to the extant Caltex pipelines along the Caltex Refinery Wharf will add visual weight to the wharf; however, this should not impede or disrupt the existing aesthetic values, views or amenity of the local environment. Views from the Peninsula to the wharf itself include the wider Botany Bay industrial landscape and as such the new pipeline will not have a significant impact on the national heritage values of the Kurnell Peninsula Headland (Figure 7.15). The construction of the KBL does not constitute an action requiring the advice or approval of the Minister.

There is likely to be a short term disruption to the amenity of the Silver Beach and roadway during construction; however, the local heritage significance of the beach and roadway will be maintained.



Figure 7.15 Two views to the north from the Kurnell Peninsula to the extensive industrial environment.

8 Assessing Heritage Significance

The assessment of Aboriginal cultural heritage significance has been undertaken in accordance with DECCW guidelines. Historic heritage significance assessment has been undertaken in accordance with the criteria developed in NSW for identifying items and places having State or local significance (SHR criteria). However, the criteria for assessing Aboriginal and historic significance are derived from the Burra Charter criteria of aesthetic, historic, scientific, social or spiritual value for assessing cultural significance for past, present and future generations.

8.1 Aboriginal Cultural Heritage Significance Assessment

A primary step in the process of Aboriginal cultural heritage management is the assessment of significance. The two types of significance considered are cultural and scientific; both are of equal importance when conducting a heritage assessment and are based on the DECCW guidelines in the *Aboriginal Cultural Heritage Standards and Guidelines Kit* (NPWS 1997b). Cultural significance concerns the value(s) of a site, or feature, to a particular community group, in this case the local Aboriginal community. As this is a preliminary study, Aboriginal community consultation has not been undertaken and therefore the assessment of cultural significance will need to be carried out in the next stage of the project. Presented below is the preliminary assessment of scientific significance.

8.1.1 Scientific Significance

Professional guidelines for the assessment of significance of Aboriginal sites, objects and places discuss two types of significance: cultural significance and archaeological significance (NPWS 1997a:21-29; 1997b:5-11).

Scientific significance is assessed using criteria to evaluate the contents of a site, state of preservation, integrity of deposits, representativeness of the site type, rarity/uniqueness and potential to answer research questions on past human behaviour (NPWS 1997b:5). The NPW guidelines recommend the following criteria for assessing archaeological significance:

- *Representativeness* – all sites are representative of those in their class (site type/subtype); however, this issue relates to whether particular sites should be conserved to ensure that a representative sample of the archaeological record is retained. Representativeness is based on an understanding of the regional archaeological context in terms of site variability in and around the study area, the resources already conserved and the relationship of sites across the landscape;
- *Rarity* – defines how distinctive a site may be, based on an understanding of what is unique in the archaeological record and consideration of key archaeological research questions (i.e. some sites are considered more important due to their ability to provide scientific or cultural information). It may be assessed at local, regional, state and national levels; and
- *Archaeological Research Potential* – significance may be based on the potential of a site or landscape to explain past human behaviour. For example, hearths with charcoal have the potential to be dated and thus contribute to the chronology of occupation in a region. Rockshelters with art have the potential to contribute to our understanding of art motifs or styles in a region.

Assessment of Scientific Significance

No Aboriginal heritage sites, places or objects were identified within the Kurnell Refinery or Banksmeadow Terminal study areas. No areas of potential archaeological deposit were identified within the study areas. The proposed project impact areas do not contain Aboriginal heritage sites,

have no potential to contain subsurface archaeological deposits, and are therefore of **no scientific significance**.

8.1.2 Cultural Significance

This area of assessment concerns the value(s) of a site or feature to a particular community group – in this case the local Aboriginal community or communities. Aspects of cultural significance are relevant to sites, items and landscapes that are important, or have become important, to the local Aboriginal community. This importance involves both traditional links with specific areas as well as an overall concern by Aboriginal people for sites and landscapes generally and their future protection. Aboriginal cultural significance may include social, spiritual, historic and archaeological values. Aboriginal cultural significance assessments can only be made by the relevant Aboriginal communities.

Aboriginal communities who were consulted throughout this project have indicated that there are no specific cultural significances attached to the Kurnell Refinery or Banksmeadow Terminal study areas.

8.2 Historic Heritage Significance

The physical evidence of past activities is a valuable resource that is embodied in the fabric, setting, history and broader environment of an item, place or archaeological site. The value of this resource to a community can be evaluated by assessing its cultural and natural heritage values. 'Cultural significance' and 'heritage value' are terms used to express the intangible and tangible values of an item, place or archaeological site, and the response that it evokes in the community. Assessment of significance provides the framework for the development of conservation and management strategies, to protect an item or place for future generations. The criteria for assessing heritage value or significance are derived from the Burra Charter criteria of aesthetic, historic, scientific, social or spiritual value for assessing cultural significance for past, present and future generations.

The identification of items on heritage registers and lists demonstrates the value of those items to the community. The criteria for inclusion on the NHL, is based on the ability for an item or place to demonstrate 'outstanding heritage value', whereas the SHR criteria assesses the 'significance' of an item or place (see Appendix C for a Table of Correspondence of NHL and SHR criteria). In NSW, an item or place will be considered to be of State or local heritage significance if, in the opinion of the Heritage Council, it meets one or more of the assessment criteria.

As identified in Section 2 'Statutory Context' the Kurnell Peninsula Headland is listed on the NHL, as the place where Captain James Cook first landed on Australian shores and encountered the local Aboriginals (see Appendix A for NHL Gazettal). The NHL curtilage for the Kurnell Peninsula Headland includes areas also listed on the SHR and the Kurnell SEPP 1989.

Those items and places of local heritage within the near vicinity of the KBL project are:

- Silver Beach and Roadway within the Sutherland Shire LGA and identified in the Heritage Schedule of the Kurnell SEPP 1989
- Botany Marshalling Yards within the Botany LGA and identified on the Heritage Schedule of the Botany LEP 1995.

There are no other heritage items, and no items or places were identified as having potential for inclusion on any heritage registers or lists, within the near vicinity of the KBL project.

9 Impact Assessment

The following conclusions are based on the statutory requirements and the results of the Aboriginal and historic background research, Aboriginal community consultation and archaeological field survey and physical assessment.

9.1 Aboriginal Heritage

No Aboriginal archaeological sites, objects or places, or areas of archaeological potential or Aboriginal sensitivity, were identified within the study area. The results of the archaeological survey of the study area conducted with representatives of the local Aboriginal community confirmed extensive disturbance from industrial development and associated ongoing maintenance of subsurface infrastructure, and it is therefore considered highly unlikely that evidence of previous occupation by Aboriginal people remains within the study area.

The proposed development will not impact on any Aboriginal heritage sites, objects or places, or areas of archaeological potential or Aboriginal sensitivity. No further Aboriginal heritage assessment is required for the current proposed KBL upgrade works.

9.2 Historic Heritage

The aim of the KBL project is to secure an increased and more reliable jet fuel supply to Sydney Kingsford Smith Airport thereby ensuring the ongoing viability and success of the airport business. The background research and physical assessment of the Caltex Oil Refinery site, associated Refinery Wharf at Kurnell and Banksmeadow Terminal and their local environments has determined that there are no heritage constraints on the project.

In particular, the proposed development on the Caltex Refinery Wharf will not have a significant impact on the gazetted NHL values of the Kurnell Peninsula Headland.

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Appendix A

Heritage Inventories

- *National Heritage Listing for Kurnell Peninsula Headland*
- *Botany Local Environmental Plan – Botany Marshalling Yards*



**Commonwealth
of Australia**

Gazette

No. S 38, Monday, 28 February 2005

Published by the Commonwealth of Australia

SPECIAL

Environment Protection and Biodiversity Conservation Act 1999

DECISION ABOUT INCLUSION OF A PLACE IN THE NATIONAL HERITAGE LIST

I, Ian Gordon Campbell, Minister for the Environment and Heritage, having considered, in relation to Kurnell Peninsula (the place), included in the National Heritage List on 20 September 2004 under section 324F (Emergency Listing) of the *Environment Protection and Biodiversity Conservation Act 1999* (the Act)–

- (a) the Australian Heritage Council's assessment whether the place meets any of the National Heritage criteria; and
- (b) the comments given to the Council under section 324G of the Act;

alter the boundary, pursuant to subsection 324J(5) of the Act, of the listed place described in the National Heritage List to that described in the Schedule below, and remove from the List for the place the National Heritage value that caused it to meet criterion (e) as prescribed by the regulations for the purposes of section 324D of the Act.

The descriptions of the values under criteria (a), (b), (g) and (h) are varied, including: removal of the natural National Heritage values ascribed to the place under criterion (a); and removal of the historic National Heritage values ascribed to the place with respect to La Perouse under criterion (a).

The entry for this place in the National Heritage List is now as set out in the Schedule.

Dated this 24th day of February 2005

Ian Gordon Campbell
Minister for the Environment
and Heritage

SCHEDULE

STATE

Local Government Area

Name:

Location

Values:

NEW SOUTH WALES

Sutherland Shire**Kurnell Peninsula Headland:**

About 400ha, at Kurnell, comprising Botany Bay National Park, Lot 1 DP91704, the road reserve extending from Cape Baily Lighthouse in the east to the Park boundary in the west and the area between the seaward boundaries of the National Park and Lot 1 DP91704 and the Low Water Mark.

Criterion

(a) the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.

Values

The Meeting Place Precinct, Kurnell Peninsula, was the site of first recorded contact between Indigenous people and Britain in eastern Australia, and symbolically represents the birthplace of a nation, and the dispossession of Indigenous people. This symbolism is reinforced by its proximity to Sydney, the site of the first British settlement, as well as its accessibility. The discovery of Botany Bay, including Kurnell Peninsula, in April 1770 by Lt. James Cook, Commander of the Endeavour, was a precursor to the colonization of Australia by Britain. The association of Cook's visit with the place is clear and well substantiated and has been celebrated since 1822.

The Meeting Place Precinct, including Captain Cook's Landing Place, includes memorials and landscape plantings commemorating the events of 1770. Place names such as Inscription Point and Point Solander, the remnant watercourse, the memorials to explorers and Indigenous inhabitants, and Cook's maps of the Peninsula, in conjunction with Cook's Journal, and those of officers and scientists, clearly illustrate the events of 1770. Attributes specifically associated with its Indigenous values include the watering point and immediate surrounds, and the physical evidence of Aboriginal occupation in the area broadly encompassed by the watering place and the landing stage.

Kurnell Peninsula, Botany Bay, was the first site on the east coast of the Australian continent explored by scientists from Britain, with many of the first type-specimens of flora and fauna collected near the landing site by both Banks and Solander. Of particular note in 1770 was the naming of the *Banksia* genus after Joseph Banks. Cook's naming of 'Botany Bay' in 1770 would result in its adoption as an emotive term

for a destination, which came to be associated with convictism for much of the nineteenth century.

Although Cooks' mapping of the east coast of Australia in 1770 did not appreciate the extent and importance of Port Jackson, nor the existence of Bass Strait, his running surveys were an outstanding achievement, which enabled the continental characteristics of Terra Australis, and its relationship to Papua New Guinea and New Zealand, to be defined fully for the first time. Cook's survey of Botany Bay in 1770, and clear description of the headlands at its entrance, provided information about a safe harbour with fresh water for British ships which followed.

The headland area of Kurnell Peninsula, in its landmark role bounding the entrance to Botany Bay, is significant to the nation as the destination for the First Fleet under Captain Arthur Phillip in 1787. Although first settlement occurred at Sydney Cove in January 1788, Cook's first voyage, with his first landfall in Australia at Kurnell Peninsula, Botany Bay, informed the subsequent British declaration of terra nullius through his reports, and, as the destination of the First Fleet, began the process that would lead to British possession of the Australian continent by 1830.

(b) the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

Kurnell Peninsula was the first landfall made by Cook on continental Australia during his successful mapping of the eastern coastline, and is the point of first recorded contact between the British and Indigenous Australians in eastern Australia.

The impact of the event and the events themselves are well described. The association of the events with the place is clear and well substantiated.

The place possesses rare aspects of Australia's cultural heritage and is of outstanding heritage value to the nation.

For Attributes refer to the first entry for Criterion (a).

(g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

'Captain Cook's Landing Place' at Kurnell Peninsula is considered by many to be of outstanding heritage value to the nation for its association with the 'the birth of the nation'. The events hold a different meaning for Indigenous Australians, marking the commencement of colonization of Australia, and dispossession, underpinned by the doctrine of *terra nullius*. The story of Cook's first landing on the east coast of Australia is nationally important, and Captain Cook's Landing Place has become a symbolic place representing an important national story.

The story of Cook's voyage, including Cook's landing place at Kurnell and first contact between the British and Indigenous Australians on the eastern seaboard, has become an integral part of Australian folk-lore and our collective psyche. There are 'Captain Cook' stories in many parts of Aboriginal Australia, including remote areas such as Central Australia and the Victoria River Downs, Northern Territory. The events have been well documented by many authors, acknowledging the place's important association with Indigenous Australian's at a national level.

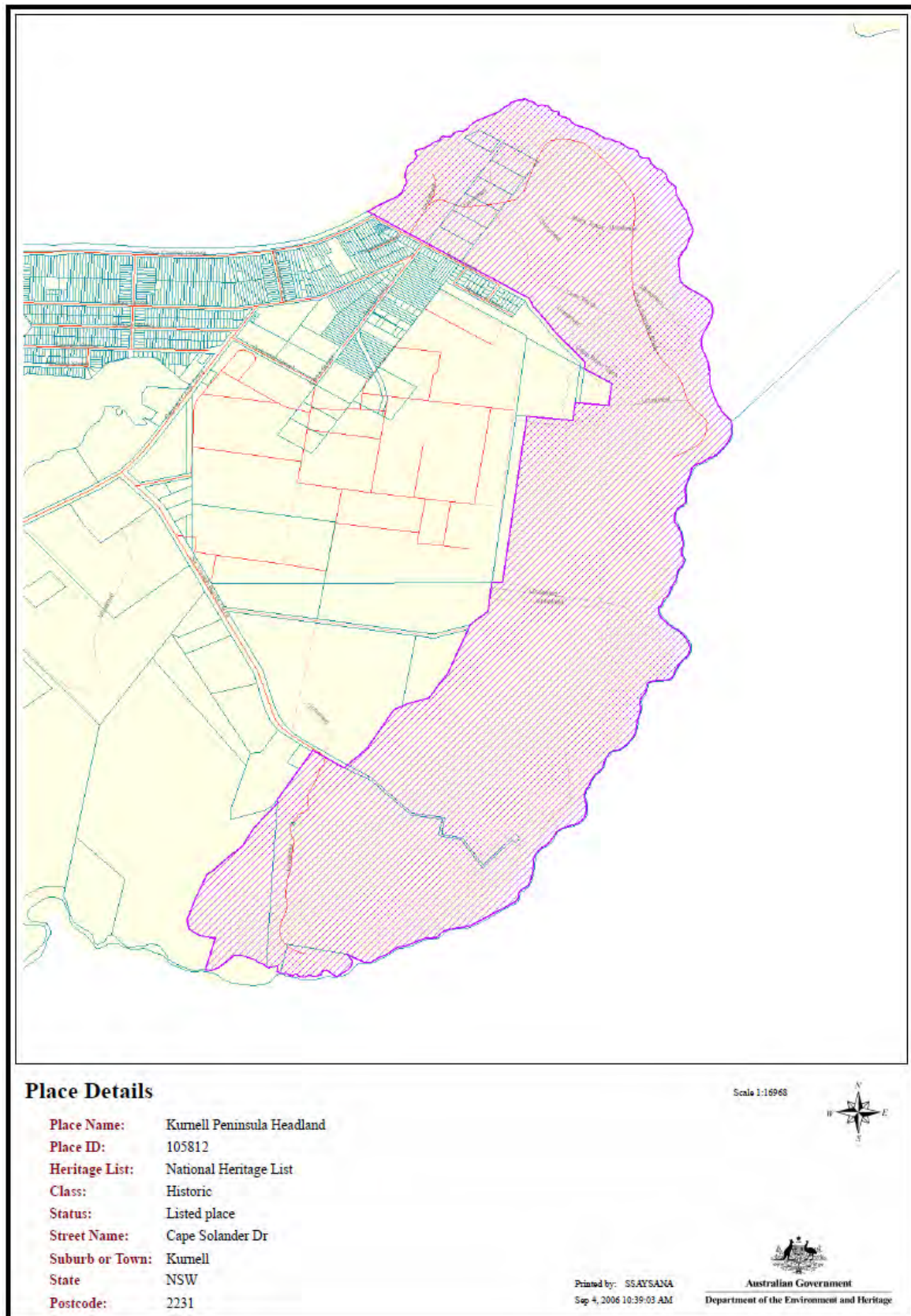
Captain Cook's Landing Place is within the Meeting Place Precinct and part of the reserve set aside in 1899. For Attributes refer to the first entry for Criterion (a).

(h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history

The Meeting Place Precinct, Kurnell Peninsula, is significant to the nation as the first landfall of Captain James Cook during his successful mapping of Australia's eastern coastline in 1770. This event has been celebrated by the placing of memorials since 1822 and through commemorations such as the bicentenary in 1970.

On this, Cook's first of three voyages in the Pacific, Joseph Banks was botanist, assisted by Daniel Solander and the artists Sydney Parkinson, Alexander Buchan and Herman Sporing. The artists were to produce botanical, zoological and ethnographic drawings. Banks and Solander collected 83 specimens, many of which are now the type specimens of species and genera, including *Banksia*. Both Banks and Solander as scientists on Cook's crew are remembered by local geographical place names; Cape Banks and Point Solander have defined the entrance to Botany Bay since 1770.

Attributes clearly associated with the landing are included within the Meeting Place Precinct. Although the location of botanical specimens collected by Banks and Solander was referred to generically as 'Botany Bay', the landing place, as the site of first exposure to the environment, was a key source of botanical specimens and species types. A number of species, including *Angophora costata* woodland on the adjacent headland areas and a native violet at the watering place, named after Banks, occur in close proximity to the landing site.



BUILDINGS & OTHER WORKS/RELICS

BOTANY HERITAGE STUDY 1996

(NOTE: The numbers in brackets denote the relevant corresponding numbers in the 'Inventory Manual July 1990').

PRESENT NAME (6)] Botany Marshalling Yard PREVIOUS / OTHER NAMES (7)			DATE INSPECTED (3)	COUNCIL REF. NO.	REF. NO. (1)																														
LOCATION (10) STREET NO. STREET NAME Beauchamp Street TOWN / SUBURB Banksmeadow POSTCODE 2019 LOCALITY			INFORMATION SOURCES (20) WRITTEN																																
PRESENT OWNER (15a) S R A (NSW) NAME ADDRESS STREET NO. STREET NAME TOWN / SUBURB POSTCODE			ORAL GRAPHIC																																
CATEGORY (4) SUB CATEGORY (5) DATE OF CONSTRUCTION (15c) ARCHITECT / DESIGNER (15f) BUILDER (15g)			PROPERTY DETAILS: (23) REAL PROPERTY DESCRIPTION (a) SITE AREA (b) EXISTING ZONE (c)																																
PHOTOGRAPH (14) (1) Roll No. 8594 Negative No. 18 			CO-ORDINATES (11) Chart name & date Scale: Map/Chart ref No. Easting: Northing: Latitude: Longitude:																																
			Historical Period (18) <table border="1"> <thead> <tr> <th>PERIOD</th> <th colspan="2">BUILT USED</th> </tr> </thead> <tbody> <tr> <td>PRE 1800</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>1800-1825</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>1826-1850</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>1851-1875</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>1876-1900</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>1900-1925</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>1926-1950</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>1951-1975</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>POST 1975</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>			PERIOD	BUILT USED		PRE 1800	<input type="checkbox"/>	<input type="checkbox"/>	1800-1825	<input type="checkbox"/>	<input type="checkbox"/>	1826-1850	<input type="checkbox"/>	<input type="checkbox"/>	1851-1875	<input type="checkbox"/>	<input type="checkbox"/>	1876-1900	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1900-1925	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1926-1950	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1951-1975	<input type="checkbox"/>	<input checked="" type="checkbox"/>	POST 1975	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<p>PHYSICAL CHARACTERISTICS (13)</p> <p>ARCHITECTURAL STYLE (a) Victorian Period</p> <p>MATERIALS (b)</p> <p>Exterior Walls Timber Weatherboard Roof: Corrugated Iron</p> <p>Interior</p> <p>MODIFICATIONS (e)</p> <p>OTHER DETAILS OF PHYSICAL APPEARANCE (f) SRA Freight Terminal Station Master (Timber) and Yard Master (Pre-Fab Cottages) also portable shed</p>	<p>HERITAGE LISTING (12)</p> <p><input type="checkbox"/> REGISTER OF THE NATIONAL ESTATE (AHC) - REGISTERED</p> <p><input type="checkbox"/> REGISTER OF THE NATIONAL ESTATE OF AUST. (AHC) - INTERIM</p> <p><input type="checkbox"/> REGISTER OF THE NATIONAL TRUST (NSW)</p> <p><input type="checkbox"/> REGISTER OF SIGNIFICANT 20th CENTURY ARCHITECTURE (RAIA)</p> <p><input type="checkbox"/> DEPARTMENT OF PUBLIC WORKS HERITAGE & CONS.ORDER</p> <p><input type="checkbox"/> HERITAGE COUNCIL REGISTER – PERMANENT CONS.ORDER</p> <p><input type="checkbox"/> HERITAGE COUNCIL REGISTER – INTERIM CONS.ORDER</p> <p><input type="checkbox"/> HERITAGE COUNCIL REGISTER – SECTION 130 ORDER</p> <p><input type="checkbox"/> HERITAGE COUNCIL REGISTER – NOMINATION</p> <p><input type="checkbox"/> NSW GOVT DEPT HERITAGE REGISTER (S170) HERITAGE ACT</p> <p><input type="checkbox"/> NP & WS HISTORIC SITES REGISTER</p> <p><input type="checkbox"/> NP & WS ABORIGINAL SITES REGISTER (CONTRACT SITES)</p> <p><input type="checkbox"/> INSTITUTE OF ENGINEERS (NSW) HERITAGE REGISTER</p> <p><input type="checkbox"/> EXISTING HERITAGE STUDY (WRITE NAME BELOW)</p> <p><input type="checkbox"/> REGIONAL ENVIRONMENTAL PLAN HERITAGE SCHEDULE</p> <p><input type="checkbox"/> LOCAL ENVIRONMENTALAL PLAN HERITAGE SCHEDULE</p> <p><input type="checkbox"/> DRAFT LEP HERITAGE SCHEDULE</p> <p><input type="checkbox"/> OTHER</p>
<p>HISTORICAL THEMES (16)</p> <p>S.H.I.P THEMES</p>	<p>LOCAL THEMES Period 4 Depression to World War (1888-1918)</p> <p>Transport</p>
<p>HISTORICAL NOTES (19)</p>	
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<p>EVALUATION CRITERIA (21)</p>	<p>S = STATE R = REGIONAL L = LOCAL</p>
<p>VALUE</p>	<p>REPRESENTATIVE</p>
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<p>SOCIAL</p>	<p>Local</p>
<p>TECHNICAL/RESEARCH</p>	<p></p>

Appendix B

Log of Aboriginal Community Consultation

Date	AMBS member	Organisation	Contact	Organisation	Method	Comment
1/11/2010	Jenna Weston	AMBS	Website	NNTT	Website	Searched Botany Bay and Sutherland LGAs. DTAC NC97/8 is the only active claimant application, in Botany Bay LGA.
2/11/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Email	Notification of project and request for contact details of Aboriginal groups. Also asked them to identify whether LPLALC wished to be consulted.
2/11/2010	Jenna Weston	AMBS	Kashana Cohen-McMeekin	National Native Title Tribunal	Email	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	Botany Bay City Council	Email	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	Botany Bay City Council	Email	Automatically-generated email saying they'd received my email.
2/11/2010	Jenna Weston	AMBS	Laurel Alexander/Miranda Morton	DECCW	Fax	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	Office of the Registrar, Aboriginal Land Rights Act	Fax	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Fax	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	Fairfax Media	Email	Sent text for ad, to be placed 4 November 2010; response date 18 November 2010.
2/11/2010	Jenna Weston	AMBS	N/A	Fairfax Media	Email	Automatically-generated email saying they'd received my email.
2/11/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Mail	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	N/A	Sutherland Shire Council	Email	Notification of project and request for contact details of Aboriginal groups.
2/11/2010	Jenna Weston	AMBS	Suzanne Wren	Botany Bay City Council	Email	Identified LPLALC.
3/11/2010	Jenna Weston	AMBS	Valerie Manukau	Fairfax Media	Email	Ad proof.
3/11/2010	Jenna Weston	AMBS	Valerie Manukau	Fairfax Media	Email	Asked for a couple of changes to the proof.
3/11/2010	Jenna Weston	AMBS	Valerie Manukau	Fairfax Media	Email	Faxed revised proof.
3/11/2010	Jenna Weston	AMBS	Valerie Manukau	Fairfax Media	Email	Sent confirmation of revised proof.
3/11/2010	Jenna Weston	AMBS	Valerie Manukau	Fairfax Media	Email	Confirmed that the ad would go into tomorrow's paper.
3/11/2010	Jenna Weston	AMBS	Miranda Morton	DECCW	Phone	Rang to check that fax was received. She said it was, and her response is in the mail.
3/11/2010	Jenna Weston	AMBS	Sandra Lee	DTAC	Email	Notification of project and invitation to register interest.
3/11/2010	Jenna Weston	AMBS	Gordon Morton	DACHA	Fax	Notification of project and invitation to register interest.

4/11/2010	Jenna Weston	AMBS	Kashana Cohen-McMeekin	National Native Title Tribunal	Email	Identification of a claimant application by DTAC (Gordon Morton now with DACHA) in Botany Bay LGA. Identification of a non-claimant application by Gandangara LALC in Sutherland LGA. However, the land to which the application applies is near Menai. It is known that the study area is in La Perouse LALC lands.
4/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Fax	Identified himself as a direct descendant of Dharawal owners of land from Watsons Bay to Wollongong. Asked for invitation to meeting.
4/11/2010	Jenna Weston	AMBS	Troy Jennings	Koomurri Management	Email	Registration of interest. Identified himself as Wiradjuri, born in Kurnell.
4/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Email	Email to ask which project his fax referred to.
5/11/2010	Jenna Weston	AMBS	Lou Ewins	DECCW	Mail	Letter identifying the following groups as potentially having an interest in the study area: LPLALC, Yarrowalk, La Perouse Botany Bay Corporation and Woronora Plateau Gundungara Elders Council.
5/11/2010	Jenna Weston	AMBS	Scott Franks	Tocomwall/Yarrowalk	Mail	Notification of project and asked whether they would like to be consulted.
5/11/2010	Jenna Weston	AMBS	Yvonne Simms/Norm a Simms	LPBBC/WPGEC	Mail	Notification of project and asked whether they would like to be consulted.
10/11/2010	Jenna Weston	AMBS	Courtney Field	ORALRA	Post	Identified that there are no RAOs, and said that LPLALC may be able to provide contact details for organisations.
15/11/2010	Jenna Weston	AMBS	Yvonne Simms/Norm a Simms	LPBBC/WPGEC	Phone	Registration of interest, by both groups.
16/11/2010	Jenna Weston	AMBS	Celestine Everingham	DACHA	Phone	Registration of interest, but only for Banksmeadow, as their area only goes to the north of the Georges River and Botany Bay.
16/11/2010	Jenna Weston	AMBS	Paul Styman	SSC	Email	Identified Kurranulla Aboriginal Corporation as a potential stakeholder.
17/11/2010	Deb Farina	AMBS	n/a	Kurranulla Aboriginal Corporation	Mail	Notification of project and invitation to register interest by 1 December 2010
19/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Phone call to ask about his fax. He said that he'd seen an ad in the Koori Mail. I said we hadn't placed any ads in the Koori Mail lately. He said that it was about sites in Kurnell. He said that he wanted to be invited to meetings about sites between Kurnell/Botany Bay and Audley, to discuss what's happening. I said I wasn't sure what meeting he was referring to. He said he'd fax me a copy of the newspaper ad he'd seen.

19/11/2010	Jenna Weston	AMBS	Gordon Morton	DACHA	Fax	Provision of methodology; requesting comments by 10/12/2010.
19/11/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Email	Provision of methodology; requesting comments by 10/12/2010.
19/11/2010	Jenna Weston	AMBS	Troy Jennings	Koomurri Management	Email	Provision of methodology; requesting comments by 10/12/2010.
19/11/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Mail	Provision of methodology; requesting comments by 10/12/2010.
19/11/2010	Jenna Weston	AMBS	Yvonne Simms/Norm a Simms	LPBBC/WPGEC	Mail	Provision of methodology; requesting comments by 10/12/2010.
19/11/2010	Jenna Weston	AMBS	Deanna Schrieber	Kurranulla Aboriginal Corporation	Mail	Provision of methodology; requesting comments by 10/12/2010.
23/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Rang to see if he'd been able to fax the ad. He said he'd try to fax it through this morning, but that he'd give me a call back as he was on the other line.
23/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Ken rang to say he wanted to be consulted on projects in his area. I said that we follow consultation guidelines on our projects, so he would need to contact DECCW to register to be consulted for his area. I said I thought he may have seen out ad for Kurnell, although it wasn't in the Koori Mail. He said he wanted to register his interest in the Kurnell project and I said I would fax him project information and a methodology, to the fax from which he sent his original letter.
23/11/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Fax	Provision of methodology; requesting comments by 10/12/2010.
23/11/2010	Jenna Weston	AMBS	Troy Jennings	Koomurri Management	Phone	Asked about the date for feedback. He thought the feedback form required it by 19 November. I said the form noted that the methodology letter had been sent on 19 November, but the response date was 10 December. He said they were putting something together now, and he would email it through.
7/12/2010	Jenna Weston	AMBS	Celestine Everingham	DACHA	Phone	Rang to ask their rates and availability. Celestine said they're available Monday but not Tuesday.
7/12/2010	Jenna Weston	AMBS	N/A	La Perouse LALC	Phone	Tried to call to check on their rates and their availability for 13 or 14 December. Phone rang out.
7/12/2010	Jenna Weston	AMBS	David Ingrey	La Perouse LALC	Phone	Rang to ask their rates and availability. David said he's need to check on availability, and asked me to email him the information.

7/12/2010	Jenna Weston	AMBS	Yvonne Simms/Norma Simms	LPBBC/WPGEC	Phone	Said that WPGEC is currently under the auspices of LPBBC, and that they are available on Monday, Thursday and Friday next week.
7/12/2010	Jenna Weston	AMBS	Troy Jennings	Koomurri Management	Phone	Rang to ask about rates and availability, but Tony doesn't have any rates. I spoke with him about his interest in the project, and he said he mainly does dance and performance, and wasn't sure if he could be of help on the project, but his wife showed him the ad and said he should get involved. He said that he is Wiradjuri, who are traditionally from the Wellington area and covered about 80% of NSW, and he grew up in Kurnell and knows that there are lots of sites and significant Aboriginal places. He said that the Wiradjuri signed a treaty in the 1800s with Governor Brisbane at Parramatta, and he's currently working on getting the treaty recognised, in the Supreme Court. He said that he considers all of Australia to be sacred land for Aboriginal people, and he'd like more preservation of land, rather than so much development. He said he knows Neville Williams, and Russell Dawson, and would ask them about commenting on the methodology and report. He said he'll get me something by Friday, as per the deadline.
7/12/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Rang to ask about rates and availability. Ken is free on Monday 13 December, but his list of rates was at home so he asked me to call him back about 4pm.
7/12/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Rang back but he said he put his list of rates in his car for when I called him back, but then his son took his car, so he said he'd call me back tomorrow to let me know the rates.
9/12/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Tried ringing several times about rates, but phone went straight to messagebank. Left message asking him to get back to me about rates.
9/12/2010	Jenna Weston	AMBS	David Ingre	La Perouse LALC	Email	Invitation to field survey on 13 December.
9/12/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Fax&Email	Invitation to field survey on 13 December.
9/12/2010	Jenna Weston	AMBS	Yvonne Simms/Norma Simms	LPBBC/WPGEC	Fax	Invitation to field survey on 13 December.
9/12/2010	Jenna Weston	AMBS	Celestine Everingham	DACHA	Fax	Invitation to field survey on 13 December.

9/12/2010	Jenna Weston	AMBS	Troy Jennings	Koomurri Management	Email	Agreement with methodology. Also provided comments as per our phone discussion, talking about the treaty and saying they oppose all development because all of Australia is sacred land.
10/12/2010	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Tried to call; left message.
10/12/2010	Chris Langelu ddecke	AMBS	Yvonne Simms	LPBBC/WPGEC	Phone	Norma called to confirm that one representative would be coming from both LPBBC and WPGEC
7/01/2011	Glenn Muir	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Asked Jenna to call him back.
10/01/2011	Jenna Weston	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Returned his call. He asked if there was anything else happening at Kurnell, and I said that there wasn't at the moment. He asked me to let him know if there was anything in the future.
31/01/2011	Chris Langelu ddecke	AMBS	Roslyn Field	La Perouse LALC	Mail	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Chris Langelu ddecke	AMBS	Yvonne Simms	LPBBC	Mail	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Chris Langelu ddecke	AMBS	Norma Simms	WPGEC	Mail	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Chris Langelu ddecke	AMBS	Celestine Everingham	DACHA	Mail	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Chris Langelu ddecke	AMBS	Deanna Schrieber	Kurranulla Aboriginal Corporation	Mail	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Deb Farina	AMBS	Troy Jennings	Koomurri Management	Email	Letter enclosing draft report and requesting comments by 28/02/2011
31/01/2011	Deb Farina	AMBS	Ken Foster	Dharawal Tribe Custodian	Email	Letter enclosing draft report and requesting comments by 28/02/2011
1/03/2011	Ngaire Richards	AMBS	Roslyn Field	La Perouse LALC	Phone	Called to see if La Perouse LALC wished to provide feedback on the draft report. No answer.
1/03/2011	Ngaire Richards	AMBS	Yvonne Simms	LPBBC	Phone	Yvonne gave verbal feedback that there was a lot of cultural significance in Kurnell, but the area that was surveyed was disturbed.
1/03/2011	Ngaire Richards	AMBS	Norma Simms	WPGEC	Phone	Same contact details as LPBBC. Yvonne Simms said Norma has similar feedback.
1/03/2011	Ngaire Richards	AMBS	Celestine Everingham	DACHA	Phone	Called to see if DACHA wished to provide feedback on the draft report. No answer.
1/03/2011	Ngaire Richards	AMBS	Troy Jennings	Koomurri Management	Phone	Called to see if Koomurri Management wished to provide feedback on the draft report. Number disconnected.
1/03/2011	Ngaire Richards	AMBS	Ken Foster	Dharawal Tribe Custodian	Phone	Called to see if Ken wished to provide feedback on the draft report. He hasn't had a chance to read the draft report, but will ring tomorrow morning with feedback.

1/03/2011	Ngaire Richards	AMBS	Roslyn Field	La Perouse LALC	Phone	Called to see if La Perouse LALC wished to provide feedback on the draft report. No answer.
1/03/2011	Ngaire Richards	AMBS	Celestine Everingham	DACHA	Phone	Called to see if DACHA wished to provide feedback on the draft report. Celestine agreed the area had been disturbed and will provide a written response tomorrow.
2/03/2011	Ngaire Richards	AMBS	Roslyn Field	La Perouse LALC	Phone	Called to see if La Perouse LALC wished to provide feedback on the draft report. Roslyn will look up the report, but may not be able to get in contact with the site officer and provide feedback.

Notice of Aboriginal Consultation

Banksmeadow/Kurnell Refinery

An Aboriginal heritage assessment is proposed for the upgrade of a pipeline at Kurnell refinery and Banksmeadow terminal. Aboriginal people who hold cultural knowledge & wish to be consulted for this assessment are invited to register an expression of interest by 18 November 2010, by fax to (02) 9320 6428, by email to Jenna.Weston@austrmus.gov.au or by post to:

**Attn: Jenna Weston
Australian Museum Business Services
6 College Street
Sydney NSW 2010**

Proof of advertisement that appeared in the St George & Sutherland Shire Leader 4 November 2010

Appendix C

Table of Correspondence: NHL Heritage Values and SHR Significance Criteria

National Heritage criteria	State Heritage criteria (NSW)
(a) the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history	a) an item is important in the course, or pattern, of NSW's (or the local area's) cultural or natural history
(b) the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history	f) an item possesses uncommon, rare or endangered aspects of NSW's (or the local area's) cultural or natural history.
(c) the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history	e) an item has potential to yield information that will contribute to an understanding of NSW's (or the local area's) cultural or natural history.
(d) the place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of: (i) a class of Australia's natural or cultural places; or (ii) a class of Australia's natural or cultural environments	g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or environments (or in the local area).
(e) the place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group	c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
(f) the place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period	c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
(g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	d) an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.
(h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history	b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's (or the local area's) cultural or natural history.
(i) the place has outstanding heritage value to the nation because of the place's importance as part of Indigenous tradition.	

