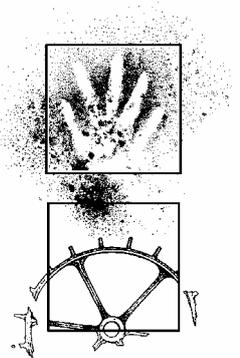


Cultural Heritage Assessment of the Proposed Port Botany Expansion

An assessment of maritime and terrestrial
archaeological potential

Version 4

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A Report to Sydney Ports Corporation

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GLOSSARY OF TERMS AND ABBREVIATIONS

AHC	Australian Heritage Commission
BP	Before Present –where ‘present’ is taken to be 1950. The principal modern radiocarbon standard is N.I.S.T (National Institute of Standards and Technology; Gaithersburg, Maryland, USA) Oxalic Acid I (C ₂ H ₂ O ₄). Oxalic acid I is N.I.S.T designation SRM 4990 B and is termed HOx1. This is the International Radiocarbon Dating Standard. Ninety-five percent of the activity of Oxalic Acid from the year 1950 is equal to the measured activity of the absolute radiocarbon standard which is 1890 wood. 1890 wood was chosen as the radiocarbon standard because it was growing prior to the fossil fuel effects of the industrial revolution. The activity of 1890 wood is corrected for radioactive decay to 1950. Thus 1950, is year 0 BP by convention in radiocarbon dating and is deemed to be the 'present'. 1950 was chosen for no particular reason other than to honour the publication of the first radiocarbon dates calculated in December 1949 (www.rlaha.ox.ac.uk/orau/01_04.htm consulted 28 October 2002).
Dolphin	Nautical: a post, pile cluster, or buoy to which to moor a vessel
EIS	Environmental Impact Statement
Holocene	the most recent epoch of the Quaternary period. The past 10,000 years of geological time
LEP	Local Environmental Plan
MSB	Former ‘Maritime Services Board’
PAD	Potential Archaeological Deposit: ie an area assessed as likely to contain subsurface archaeological material although visible remains may not occur on the surface
Quaternary	The most recent geological time period. Divided into the Holocene and the Pleistocene. Began 1.8 million years ago.
RNE	Register of the National Estate
SHI	State Heritage Inventory: an inventory maintained by the Heritage Office of NSW of known heritage items of varying levels of significance. Established under the Heritage Act, 1974 (as amended).
SHR	Heritage Register: a statutory register maintained by the Heritage Office of NSW that lists known items of State significance. Listing on this Register invokes specific management requirements and certain activities affecting such items require the consent/approval of the Heritage Council of NSW.

1. SUMMARY

- Sydney Ports Corporation is proposing to expand the port facilities at Port Botany by providing additional wharf face to create new berths for shipping. This would occur by the reclamation of approximately 60 hectares of land to the west of the existing Patrick Container Terminal. A ship-manoeuving basin will be dredged between the newly created wharf face and the Parallel Runway.
- The area that will be directly affected by the proposed development is surrounded by reclaimed land and is both below and above the high tide mark.
- Consultation with the local Aboriginal community conducted in the course of this heritage study indicated that community members were familiar with the history of land reclamation and knew that the proposed development area would have been well beyond the original pre-contact shoreline. Their concerns were therefore not about direct impact on Aboriginal sites but did include concern about any possible indirect impact on Aboriginal sites around Botany Bay. The community indicated that they would like to be kept informed about the outcome of relevant studies and would like a presentation of the results prior to commenting on the EIS.
- Within the period of the human occupation of Australia, Botany Bay was once dry land. During the latest rise in sea level the Aboriginal inhabitants of the study area would have gradually abandoned their camp sites and moved to higher ground. In the process it is inevitable that they left behind cultural material that would have been inundated by rising sea levels. The forces of wave action, tidal influences and currents would have washed away, or at least re-deposited, the material. The chance of any material surviving, or staying recognisable in such conditions, is extremely remote.
- No Aboriginal sites are recorded as occurring in the Port Botany study area and the potential for Aboriginal relics to remain in the area is negligible.
- Subsequent European settlement in the Botany Bay area occurred by extension from Port Jackson and land grants were made to Europeans from the 1820s onwards. Early industries in the Botany Bay area included grazing, fishing, market gardening, boat building, wool scours and tanneries, and the production of shell lime and salt. Recreation and tourism followed and the area was particularly popular with tourists during the nineteenth century. In the 1840s the Sir Joseph Banks Hotel was built and in 1847 a jetty that was more than 200 m in length was constructed for the hotel. This provided 'sufficient depth of water at most stages of the tide, in the bathing houses at the outer end'.
- The original location of the Sir Joseph Banks Jetty and baths that were built in front of the Sir Joseph Banks Pavilion has been covered by the foreshore reclamation. Given that the jetty does not appear on plans after 1860, it seems unlikely that physical evidence relating to this structure will have survived buried beneath the current land surface. However any subsurface disturbance in the vicinity of the jetty location should be monitored with a view to detecting such remains if they exist.
- The only known item that would have been long enough to extend beyond the current shoreline is the Government Pier that was built around 1880. This structure was still standing in 1960 but was then partially demolished. The significance of the Government Pier lies in its association with the Government's first attempt at fostering trade and creating port infrastructure within Botany Bay. The remains of the pier are located in the study area.
- The possibility of the presence of shipwrecks being present in the study area was considered, in the course of this assessment. Fourteen vessels are listed by the NSW Heritage Office as having been lost in the Botany Bay area. There are no known remains of the wrecks within the study area however there is some very limited potential for the *Prompt* and *Minnie Wamsley* to have been wrecked in the vicinity of the study area. A remote sensing survey carried out in 1992 that encompassed the study area did not identify the remains of any shipwreck material (Clark 1992). It is considered highly unlikely that reclamation and dredging activities for the proposed development will impact shipwrecks.

- At the time of writing, any cultural feature deposited or constructed in 1952 or earlier is considered a 'relic' under the State *Heritage Act 1977* and requires a permit to disturb. Therefore, the *Prompt*, the *Minnie Wamsley*, the Government Pier and any physical evidence relating to the Sir Joseph Banks Jetty (should it exist) as well as associated cultural deposits, are considered 'relics' under the aforementioned Act.
- In order to mitigate the deleterious effects of the impact of the proposed development on the submerged/buried cultural resource a number of measures have been proposed.

The remains of the Sir Joseph Banks Hotel Jetty, Baths and associated cultural deposits

Recommendation 1

The general location of the Sir Joseph Banks Hotel jetty and bath remains must be regarded as a potential archaeological site. Should any subsurface excavations be planned in this area, a program of archaeological monitoring should be implemented when the works are undertaken at the general location of the jetty. However the chance of archaeological remains in this location is low.

The remains of the Government Pier and associated cultural deposits

Recommendation 2

Because of the significance of the Government Pier and its relevance to the current port development it is recommended that, as a preferred option,

The remains of the Government Pier, above and below water, and associated cultural deposits, should be conserved.

Alternately, as a less satisfactory option is that

The remains of the Government Pier, above and below water, and associated cultural deposits, be documented prior to burial.

It should be noted here that Sydney Ports Corporation has confirmed that the Government Pier will be conserved as part of the early history of government regulation and development of the Port Botany infrastructure.

Recommendation 3

The possibility for future on-site interpretation of the Government Pier remains should be considered.

Recommendation 4

The general location of Dent's Boatyard jetty must be regarded as a potential archaeological site. Should any subsurface excavations be planned in this area, a program of archaeological monitoring should be implemented when the works are undertaken at the general location of the jetty. However the chance of archaeological remains in this location is low.

2. INTRODUCTION

Sydney Ports Corporation is proposing to expand the port facilities at Port Botany in the area indicated in Figure 1. An Environmental Impact Statement (EIS) is required to be prepared for the proposed port expansion.

This report documents an assessment of the potential impact of Sydney Ports Corporation development proposal on archaeological heritage values and includes Aboriginal, historic and maritime study components. The report forms the cultural heritage component of the EIS and was commissioned by Sydney Ports Corporation.

2.1 The Proposed Development

The Port Botany development proposal involves the provision of new berths for shipping. These would be created by the reclamation of approximately 60 hectares of land to the west of the existing Patrick Container Terminal.

A ship-manoeuving basin would be dredged between the newly created wharf face and the Parallel Runway. The intended open tidal channel between the proposed reclamation and the foreshore may also need to be dredged and formalised. Additional spot dredging will be required in the existing ship turning basin to remove some high areas.

The area that will be directly affected by the proposed development is surrounded by previously reclaimed land (the study area is composed of a sandy seabed that has been encroached upon from the west, east and north by land reclamations over the last 30 years). The original, pre-European shoreline was located approximately 300 - 400 metres to the northeast of the current shoreline, on the other side of Foreshore Road.

The expansion of Port Botany involves:

- Creation of approximately 60 hectares of land, extending north and west of the existing Patrick container terminal and adjacent to Foreshore Road;
- Preparation of the site for long-term port use;
- Creation of additional berths;
- Improvement of port access by road and rail, and
- Development of port facilities on the new land.

2.2 The Study Area

The study area for Aboriginal and historic study components comprises the proposed footprint of the expansion area and immediately adjacent areas – this primary study area is defined as being the area between the Parallel Runway and the current Port Botany complex, and bounded to the north by Foreshore Road (Figure 2). However, as the implementation of the proposed development may impact on the submerged cultural resource beyond the immediate vicinity of the works, a secondary study area relative to maritime cultural heritage has been broadly established which encompasses all of Botany Bay. This secondary study area is bounded to the east by a line drawn from Cape Banks to Cape Solander and to the west by the Taren Point Bridge (Figure 3). The study area was selected to ensure that both direct and indirect impact on the cultural heritage resource was considered.

2.3 Report Outline

This report:

- describes the proposed development and defines the study area (Chapter 2);
- documents consultation with the La Perouse Aboriginal community (Chapter 3);
- defines the methodology employed for the study (Chapter 4);
- describes the environmental context of the study area in Botany Bay (Chapter 5);
- details the results of an investigation into Aboriginal occupation of the study area and its immediate environment, both before and after the arrival of Europeans in Australia (Sections 6.1 and 6.2);
- investigates settler history and previous landuse in the study area and local environs (Sections 6.2, 6.3, 6.4 and 6.5).
- documents the known and potential Aboriginal, terrestrial and maritime archaeological resource of the study area (Chapters 7, 8 and 9);
- discusses the impact of the proposed development on the known and potential archaeological resource of the study area (Chapter 10);
- discusses legislative requirements – (briefly in Chapter 11, and in more detail in Appendix 2); and
- suggests mitigation strategies to minimise the impact of the proposed development on the archaeological resource of the study area (Chapter 12).

2.4 Project Personnel

Navin Officer Heritage Consultants was commissioned to provide a heritage assessment of the Sydney Ports Corporation Expansion proposal. Kerry Navin managed this study and edited the report. Kerry Navin, Kelvin Officer and Susan McIntyre-Tamwoy carried out the assessment of terrestrial cultural heritage. Susan McIntyre-Tamwoy prepared an assessment of the likelihood of Aboriginal and European sites occurring within or immediately adjacent to the proposed development. Cosmos Coroneos (Cosmos Archaeology Pty Ltd) conducted the maritime heritage study, assisted by Lydia Matthews.

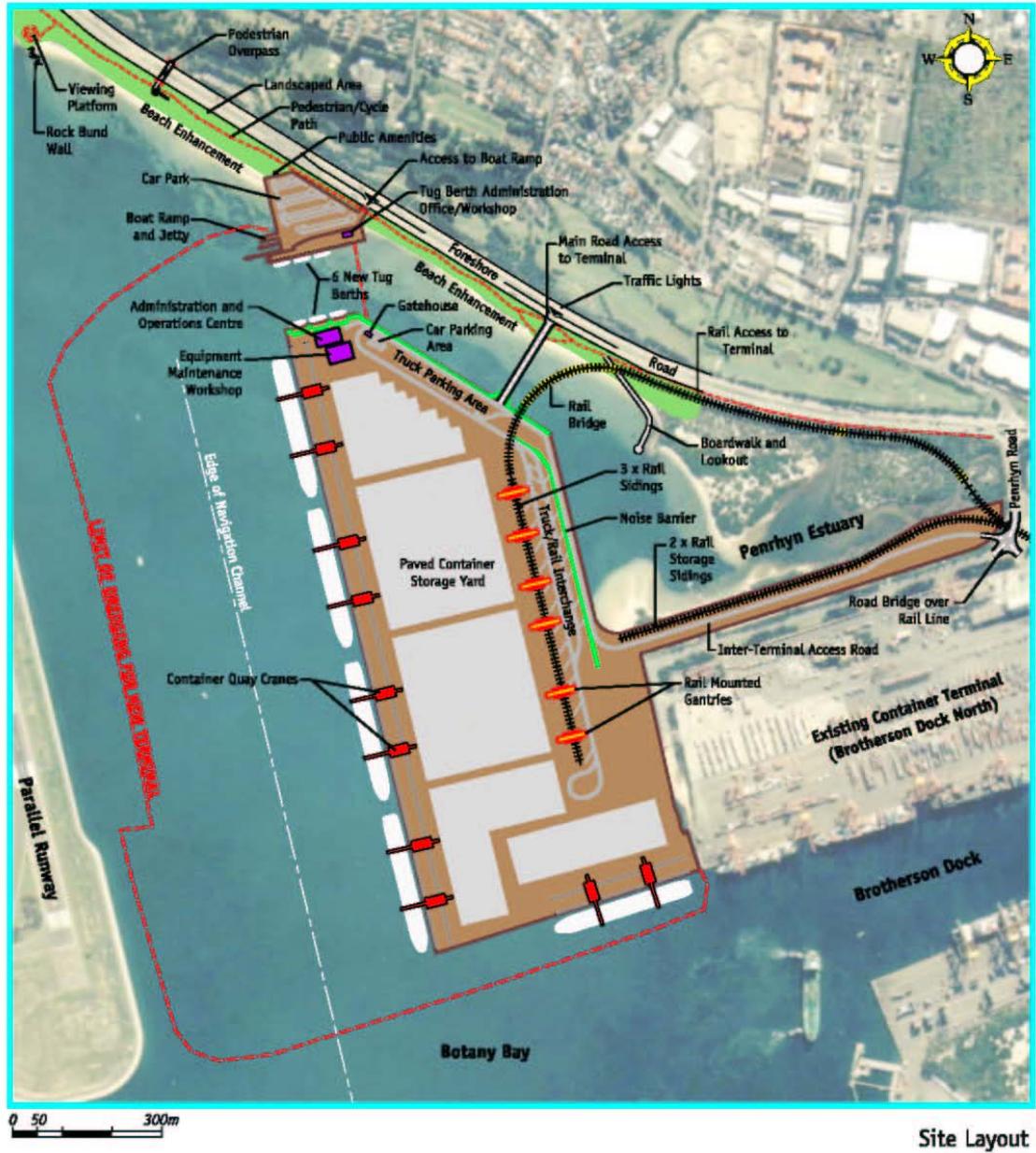


Figure 1 The Proposed Development

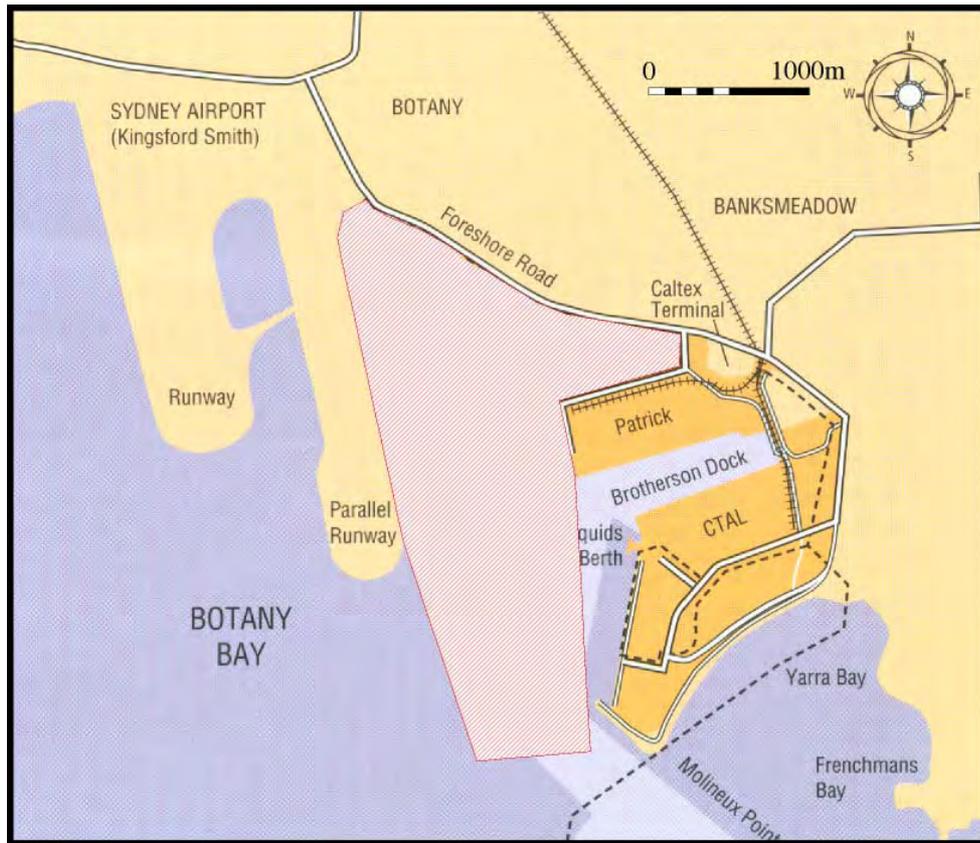


Figure 2 The Primary study area

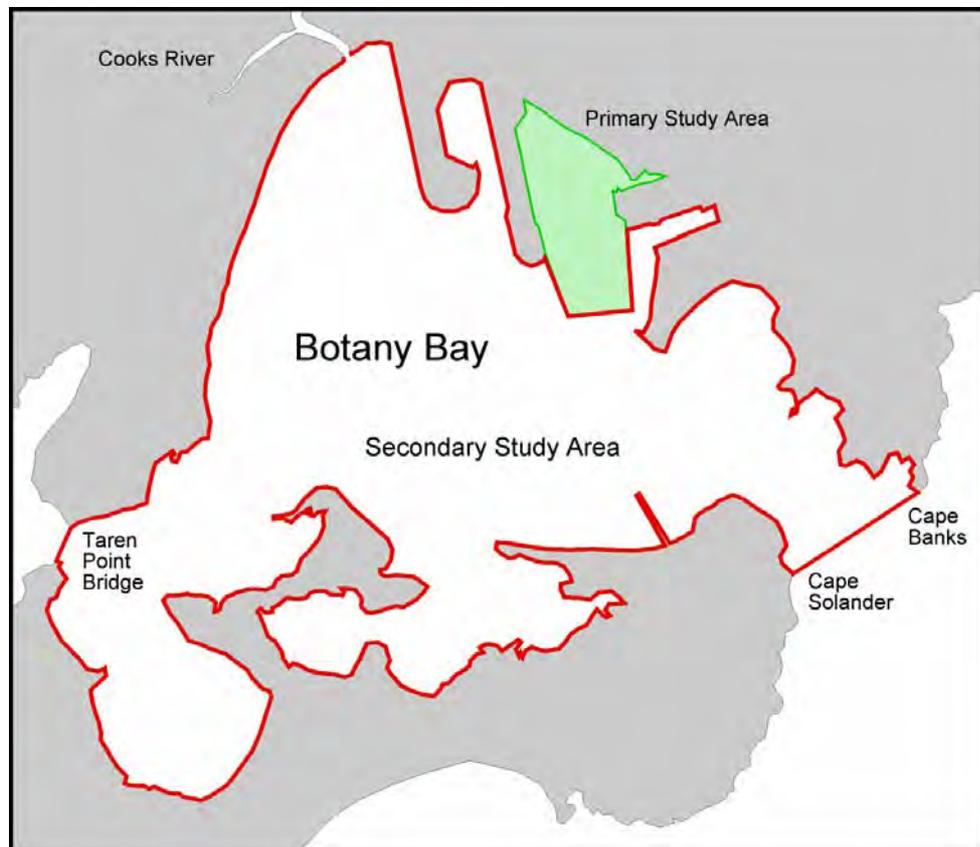


Figure 3 Secondary Study Area

3. ABORIGINAL CONSULTATION

3.1 La Perouse Aboriginal Community

The Port Botany study area falls within the La Perouse Local Aboriginal Land Council boundaries. The La Perouse Land Council is based within the La Perouse Aboriginal community which is an existing 'neighbour' to Port Botany. Discussions were held with the community in the course of a program that documented Aboriginal social values relative to the study area and the proposed development (Navin Officer Heritage Consultants 2002).

A lunchtime meeting was held on Thursday 27th June 2002 to discuss the Port Botany expansion project. Present at the meeting from the La Perouse community were: Adrian Hansen (La Perouse Land Council), David Ingray (La Perouse Land Council Sites Officer) and elders Gloria Ardler and Iris Williams. Marika Calfas represented Sydney Ports Corporation and Susan McIntyre-Tamwoy represented Navin Officer Heritage Consultants. The meeting was held to ensure that the community was aware of the project and to canvas community issues relevant to the project.

Community members were familiar with the history of land reclamation and knew that the proposed development area would have been well beyond the original pre-contact shoreline. Their concerns were therefore not about direct impact on Aboriginal sites but did include concern about any possible indirect impact on Aboriginal sites around the Bay in mobile areas such as Towra Point.

The community indicated that they would like to be kept informed about the outcome of relevant studies and would like a presentation on the results prior to commenting on the EIS.

3.2 Native Title Claims

There have been various Native Title claims over the general Botany Bay area. The majority of these have either been withdrawn or dismissed. One claim, which extends generally over the proposed development area but does not affect freehold land, is current.

The proposed Sydney Ports expansion project area lies within the external boundary of the Darug Tribal Aboriginal Corporation Native Title Claim (Federal Court File # NG6061 of 1998), however it is not within the 'Area of Application subject to claim'. This claim was accepted for registration in 1997 and has not yet been finalised. It should be noted that the application covers '*specifically identified parcels of Crown Land within an external boundary*'. The claim does not cover the waters of Botany Bay within which the proposed development area is located. The closest parcel of land is located approximately a kilometre north-northwest of the study area (see Appendix 1).

Table 1: Record of Native Title Claims relevant to the study area

Registration #	Individual or Corporation	Status
NC94/8	Dominic Kanak	Rejected
NC96/10	Korewal Elouera Jerrungarah Tribal Aboriginal Corporation	Dismissed
NC 97/8	Darug Tribal Aboriginal Corporation	Active, registered
NC97/16	Dharawal La Perouse	Discontinued
NC 98/10	Eora People South Metro Sydney	Dismissed

4. STUDY METHODOLOGY

This study has utilised a broad ranging methodology including historical research, field observations including maritime and land-based archaeological survey, and consultation.

4.1 Historical Research

Historical research involved searching for relevant material from a range of sources. These included:

- The NSW NPWS Aboriginal Sites Register and catalogue of archaeological and historical reports
- NSW Heritage Office shipwreck database and Heritage Inventory and Register, the National Trust Register, and the Register of the National Estate (Australian Heritage Commission);
- Sydney Ports Corporation Library;
- Sydney Water (for historic maps showing subdivisions and the location of water and sewerage mains, jetties and wharfs);
- the Mitchell Library (which revealed a number of historic paintings and sketches of the area along with newspaper articles; and
- Botany Library (which revealed a number of historic photos and documents and local histories).

Information was sought on

- land tenure
- industrial and residential development
- shoreline developments such as pipeline outlets, jetties, boat ramps etc
- the history of dredging and land reclamation in the area.
- aboriginal and non-indigenous use of the area pre and post contact
- past archaeological studies
- past historic studies including landscape and built monument studies
- shipwrecks
- early European observations of the landscape and its people

4.2 Terrestrial Survey

Having familiarised themselves with the history of the area and the evolution of the modern shoreline the consultants inspected the area to identify any physical evidence of Aboriginal pre-contact or historic activities. Based on the literature review documented in Section 6 of this report, a conservative prediction was made of areas likely to contain deposits, those unlikely to contain deposits and areas of some uncertainty. A site inspection was undertaken to ground-truth the tentative predictions that had been formulated. Based on observations in the field relating to obvious ground disturbance and any exposed sections, the final archaeological zoning assessment was prepared. In the case of the study area the only areas likely to contain terrestrial archaeological remains focus on long jetties or wharfs that may once have extended far enough into the Bay for parts of the structures to have survived land reclamation.

4.2.1 Potential Archaeological Deposits

Potential archaeological deposits (PADs) are areas assessed as being likely to contain subsurface archaeological remains, often despite the lack of surface structures or relics. In assessing the archaeological resource within the study area the following methodology was used.

Firstly, the history of Aboriginal use of the area and past archaeological investigations were used to assess the nature and likely distribution of Aboriginal sites in and immediately adjacent to the study area. Secondly, the history of the site since European settlement was used to understand the range of places and activities that may be represented archaeologically in the study area. Thirdly, and most importantly, the level of surface and subsurface disturbance was analysed to determine if and where intact deposits might remain. Once this information was analysed, areas of potential were identified and then checked against field observations before the final assessment.

4.3 Maritime Assessment

The maritime assessment was organised into the following steps:

- Identify the potential for the presence of cultural deposits and structures within the study area.
- Undertake a visual inspection of the study area (above, not underwater).
- Assess the condition of cultural remains not visible – buried or underwater.
- Make a preliminary significance assessment of the identified cultural remains.
- Determine the impact of the proposed development on the identified cultural remains within the primary study area.
- Determine the impact of the proposed development on the potential cultural remains within the secondary study area.
- Propose mitigating measures.

To satisfactorily carry out the first stage of the assessment, it was necessary to determine what cultural formations or deposits could exist within the study area. Such identified remains of physical cultural behaviour have been assigned to the following categories:

- shipwrecks
- maritime related structures
- cultural deposits formed from littoral sites
- cultural deposits formed offshore
- submerged terrestrial sites

Shipwrecks

This category also includes abandoned vessels and hulks. For information on these site types the NSW Heritage Office shipwreck database was searched. This database contains approximately 2000 vessels known to have been wrecked in NSW. Much of this information has come from newspaper accounts. Specific details on the construction of each vessel were derived from Custom House and Lloyd Registers. Spatial information regarding the location of these sites is sketchy, as most wreck sites in NSW have not been located, or more precisely reported to the Heritage Office. Newspaper or official reports were not often that specific with regards to location of loss as in some cases there were no witnesses present, or surviving, to report the event. This situation should be taken into consideration when viewing the shipwreck data presented in this report.

Maritime related structures

Maritime related structures refer to such features as wharves, jetties, dolphins (post or pile cluster used as a mooring), navigational aids and even reclaimed land. The search for the existence of maritime related structures within the study area concentrated on viewing as many plans, charts and photographs of the study area as possible.

Cultural deposits formed from littoral sites

Over time, discrete and identifiable cultural deposits, deliberate or accidental, can form close to littoral sites, sites such as shipyards, wharves, jetties etc.

Cultural deposits formed offshore

Large bays can often support one or more anchorages where vessels can moor whilst waiting to dock. It is usually during such times that vessels discharge garbage and ballast.

Submerged terrestrial sites

Prior to 8,000 BP. the study area was dry land. There is some potential for sites that were once on dry land to be buried under the seabed within the study area.

5. ENVIRONMENTAL CONTEXT

The following description is extracted from MSB documents (MSB 1976:34).

Botany Bay is roughly circular in shape, about eight kilometres across at its widest point, with an entrance flanked by sandstone headlands approximately 1.2 km apart. The maximum water depth of 18.3 m between the heads soon shoals within the Bay to a depth of 5.5 m at low water at the centre of the Bay, and to depths of less than 3.6 m within 760 m of the northern and southern foreshores.

Seaward of the entrance the depth of water steadily increases and at a distance of three kilometres off the coastline the depth is approximately 82 m.

The bed of the Bay is predominantly sand, and prior to any dredging it had been naturally shaped to form a large channel inside the entrance, orientated in a south-easterly direction. This channel, which under natural conditions shoaled to a depth of 9.1 m within 3,800 m of the entrance, resulted in the deepest water of the Bay being nearer to the northeastern foreshore.

Quibray Bay and Woollooware Bays are located on the southern side of Botany Bay, on either side of the Towra Peninsula. Both of these Bays are shallow - the maximum depth at low water in each being approximately 3.9 m and 3.4 m respectively. Extensive mangrove swamps ring both Bays which have been extensively used for many years for oyster farming.

The Georges River discharges into the southwestern side of the Bay. The depth contours near the river mouth are very irregular and the maximum depth of water at Captain Cook Bridge is approximately 10.6 m while further east between Dolls Point and Towra Point the maximum depth is reduced to approximately 3.5 m.

A large shoal, Taylor Bar, which extends in a north easterly direction from Dolls Point, is actually the northwestern side of the river channel.

The foreshores around the Bay between Bumborah Point on the north and a point inside the southern headland to the west of Inscription Point consists of very low lying, flat stretches of sand.

The first comprehensive survey of the Bay was made by Captain Gowland R. N in 1871. A comparison between the bed levels from this survey, together with those from a less detailed survey by Captain Hunter in 1789, and the natural depths from soundings taken by the Board in 1962 illustrate the long term stable nature of the Bay.

The ocean waters off Botany Bay are frequently disturbed by the effects of the constantly varying weather conditions. Major storms occur throughout the year but with an increased frequency during the mid-summer and mid-winter months. Because of the nature of the meteorological disturbances which result in high wave action off Botany Bay, such wave action often occurs with little warning and usually lasts for one to three days, after which relatively calm conditions often prevail.

While some of the wave energy which entered the Bay under the natural conditions prior to any dredging work was diverted by refraction and diffraction to the areas immediately inside the headlands, the orientation of the entrance and the increased water depth near the northeastern foreshore resulted in a concentration of the wave energy being directed across the Bay along the natural channel.

The saline wetlands of Botany Bay are amongst the largest and best preserved on the New South Wales coast. Some of the larger swamps in the Botany Bay estuary are prime habitats of local and even regional importance. The Bay, with its wide range of available habitats, supports a diverse population of water-associated birds ie over 170 species (Anon 1979).

6. CULTURAL HERITAGE CONTEXT

In considering the potential and known cultural heritage resource in the study area it is important to understand the history of the area so that any sites, relics or material evidence may be assessed within the historical context of Botany Bay and its environs. Accordingly in the section below the historical framework for Botany Bay is provided with an emphasis on the northern side of the Bay.

6.1 Early Observations

A somewhat incomplete picture of Aboriginal life before the arrival of Europeans can be pieced together from a mixture of oral accounts, written accounts and archaeological investigation. Accounts written by early visitors to Australia which document the more obvious details of Aboriginal life include Cook (in Reed 1969), Banks (in Beaglehole 1969), Bradley (1786-92), Collins (1798), Hunter (1968), Phillip (1789), Tench (1789, 1793, 1961) and White (1790). Although these early commentators were not trained in anthropology or linguistics some useful information has been provided by them regarding the Aboriginal people around the Sydney region and Botany Bay.

The earliest observations of Aborigines at Botany Bay were made in April and May of 1770 by Captain James Cook and Sir Joseph Banks. The French voyager Peron also made observations in Botany Bay in 1802. Rich summarises observations made by Cook and Banks in her report on an archaeological excavation at Yarra Bay (Rich 1986:43-46).

The *Endeavour* was moored in Botany Bay for eight days (April 29 - May 6, 1770). For seven of the eight days Cook and Banks were on, or around, the Bay, only spending one day exploring the countryside further afield. It can be surmised therefore that most of their observations about the Aborigines pertain to Botany Bay. Cook comments that *'The land naturally produces hardly anything fit for Man to eat, and the Natives know nothing of Cultivation'* (Cook in Reed 1969:130). References to the environment of the Bay describe it as mostly being covered with light white sand or swamps (Banks in Beaglehole 1969:57). Deep black soil was noted toward the head of the Bay (Cook in Reed 1969:45), as were large flats of sand and mud (Cook in Reed 1969:49-50).

Vegetation is described as swamps or heath, and woodlands with widely spaced trees that were reportedly free from undergrowth. Trees included 'two sorts of gums', and palms (Cook in Reed:43). Grass grew in tufts close together. On the northwest side of the Bay there was apparently no trees, and the vegetation comprised a ground cover of a 'thin brush of plants about knee high'. The area resembled English moors (Banks in Beaglehole 1969: 60).

Fresh drinking water was observed at The Watering Place at Kurnell and in rock holes along the northern shore of the Bay (Cook in Reed:41). Fish was plentiful in the Bay and shellfish were abundant on the sand and mudflats. Birds, including waterfowl, were also plentiful.

Cook and Banks noted the presence of Aboriginal camps in a number of locations including two open sites with huts on both 'points' of Botany Bay (Cook in Reed: 39-40), and two shell middens with fires and shells, one of which was reported to be 'near the shore' (Cook in Reed 41-42). Cook also made the general observation that the Aborigines did not live in large groups but were dispersed along the waterside.

Cook observed Aborigines fishing and collecting shellfish. He thought that shellfish, principally oysters, mussels and cockles, formed the main component of the Aboriginal diet. The shellfish was picked out of the sand and mud from their canoes, and sometimes cooked and eaten in the canoes, which were 12 or 14 feet long. The canoes were made of one piece of bark which was drawn or tied up at each end with the middle kept open by sticks used as thwarts (Cook in Reed: 41). A relatively large number of canoes were observed on the Bay.

Fish was caught by spear or hook and line, but it appears that stingrays were not eaten. Other foods, particularly plant foods, were also eaten but neither Cook nor Banks appears to think that they were important. Cook (p43) comments on the large number of trees, particularly palms, with footholds for climbing, although it is not stated what type of food was obtained from the trees.

Material culture observed by Cook and Banks included fishing and hunting spears, fish hooks and lines, a shield, and spear throwers. Stone tools and other wooden items such as digging sticks were not mentioned.

Tench (1961) notes the use of bark canoes for fishing and describes the equipment of the Sydney Aborigines as

‘exclusive of their weapons of offence, and a few stone hatchets very rudely fashioned, their ingenuity is confined to manufacturing small nets, ... and to fish-hooks made of bone, neither of which are skilfully executed.’

Comments were made on the types of Aboriginal shelters observed. These were described as consisting

‘only of pieces of bark laid together in the form of an oven, open at one end, and very low, though long enough for a man to lie at full length in they depend less on them for shelter, than on the caverns with which the rocks abound’ (Tench 1793).

Collins observed that the huts were ‘often large enough to hold six to eight people’ (Collins 1798). These shelters were often grouped together.

Within a short period of time after white settlement, the Sydney Aboriginal population was greatly reduced as a result of two epidemics, (most) probably smallpox. The first occurred only a short time after settlement in 1789, and the second from 1829 to 1831 (Butlin 1983). The first outbreak of the disease is believed to have killed 50% of the Aboriginal population (Collins 1798; Ross 1988; Tench 1961; Turbet 1989).

Loss of life on such a scale resulted in a major social reorganisation of Aborigines around the area (Ross 1988) with ‘remnants of bands combining to form new groups’ (Kohen 1986). Therefore the anthropological observations and other observations by chroniclers of the time do not depict the pre-settlement situation accurately.

6.2 Post European Contact

Captain Cook arrived in Botany Bay on April 29 1770. He described the Bay as a ‘capacious, safe and convenient’ harbour, ‘tolerably well sheltered from the winds.’ He called it Stingray Harbour but later renamed it Botany Bay because of the richly diverse flora documented by Sir Joseph Banks. Cooks sojourn in the Bay was only brief (eight days) and the Endeavour soon departed. Some years later an Aboriginal man recounted his impressions of the first sight of the visitors and these impressions were recorded for posterity.

‘I have often conversed with...Cruee...and was told by him that he was at Kurnell when Captain Cook sailed into Botany Bay. It was very amusing to hear him describe the first impression the blacks had of the vessels, and although very fearful, they were curious and would, with fear and trembling, get behind some tree and peep out at the monsters which invaded their shores. He said that they thought the vessels were floating islands’ (West Marriott 1988:34)

It wasn’t until January 18, 1788 that Europeans arrived as permanent presence in Australia with the arrival of the First Fleet under the command of Captain Arthur Phillip. Phillip noted in his journal that Botany Bay

‘though extensive did not afford shelter to ships from the easterly winds, the greater part of the Bay being so shoal that ships of even moderate draft are obliged to anchor with the entrance of the Bay open and exposed to a heavy sea that rolls in when it blows hard from the eastward’ (Phillip reported in MSB NSW 1979:1).

Botany Bay was abandoned as the site of the new colony in favour of the shipping benefits of Port Jackson (Sydney Harbour).

Aboriginal culture did not disappear with the arrival of Europeans in Botany Bay. The nearby Aboriginal community at La Perouse is testimony to the continuous occupation and use of the Botany/La Perouse area by Aboriginal people. There has also been some recording of oral accounts of significant places. Navin Officer Heritage Consultants in their heritage assessment of nearby Frenchmans Bay recount that Iris Williams (1988) talked of 'Dreaming Trees' and described the significance of three Moreton Bay Figs on the old Aboriginal reserve. A 'Dreamtime' story that recounts the formation of the La Perouse Peninsula and Bare Island has been recorded in *Talking Lapa* (Cooper and Martin-Baker 1995). The story relates how a pod of migrating whales, on their way to Antarctica, rest at Little Bay. Two baby whales move further down the coast and begin to play around a mound of rocks that subsequently rise to form Bare Island, with the Peninsula and mainland being their mothers (Navin Officer Heritage Consultants 2000:10).

The first documented contact that the local Botany Bay Aborigines had with Europeans was when Captain Cook sailed into the Bay. Banks (in Beaglehole 1969:54) commented that the Aborigines apparently ignored the *Endeavour*, and Cook commented that all gifts such as beads, which he left for the Aborigines, were ignored. Captain Arthur Phillip, in command of the First Fleet, and following the advice of Cook's expedition that Botany Bay was a suitable place for a penal colony, subsequently sailed into Botany Bay on January 18, 1788. Phillip soon realised that Botany Bay did not meet his requirements and left for Port Jackson. Captain Arthur Phillip and the First Fleet received quite a different response from the local Aborigines, who were 'easily persuaded to accept what was offered. They seemed fond of ornaments putting beads or red braise around the heads or necks' (Historical Records of Australia 1914:24).

The Comte de La Perouse, Commander of a French scientific expedition, arrived at Botany Bay as the First Fleet departed. He occupied the area for eight weeks, camping at Frenchmans Bay. He built a garden, and a stockade to afford protection from natives and convicts who made their way back to Botany Bay in an effort to persuade La Perouse to take them with him on departure. The expedition's chaplain and naturalist, Pere le Receveur, died and was buried at La Perouse.

Few visits were made to the shores of Botany Bay during the first years of the colony. Casual visitors included convicts, hunters, timber-getters and shepherds. Members of Phillip's staff and naturalists made periodic visits (Larcombe n.d.). Peron, a French voyager, visited the area in 1802.

During La Perouse's sojourn in Botany Bay he apparently fired on the local Aborigines (Historical Records of Australia 1914:24). It is generally accepted that the Aborigines contracted smallpox from the French sailors although there is no evidence to support this assumption. Tench notes that the French had departed more than a year before the epidemic broke out, and there were no reports that any of their crew was suffering from smallpox (Tench 1961). The Aborigines moved away from La Perouse to Long Bay and isolated their sick and dying in caves, returning only after La Perouse had departed (La Perouse Society 1969:3).

For the most part, contact with Aboriginal people during the earliest days of the settlement was relatively peaceful but there were specific acts of revenge committed from time to time. One of these, the spearing of McEntire the governor's gamekeeper occurred not far from the study area near the Cooks River. McEntire was on a hunting party that was camping overnight in a hut apparently established for hunting parties of this nature. It was December 1790 and the group had just settled for the night when they noticed several Aboriginal men with spears moving towards them. McEntire apparently recognised the men and moved out to speak to them (Tench 1979:205), one man (Pemulwuy) threw his spear hitting McEntire in his side. The latter reportedly drew back immediately crying 'I am a dead man' (Tench 1979:205). There are several indicators that this was a revenge killing of a specific individual rather than a random act of violence. Tench himself points out that

'From the aversion uniformly shewn by all the natives to this unhappy man, he had long been suspected by us of having in his excursions, shot and injured them. To gain information on this head from him, the moment of contrition was seized. On being questioned with great seriousness, he however, declared that he had never fired but once on a native and then not killed, but severely wounded him, and this in his own defence. Notwithstanding this death-bed confession, most people doubted the truth of the relation, from his general character and other circumstances' (Watkin Tench 1979:206).

In addition to this Tench notes that McEntire was the 'person of whom Baneelon had, on former occasions shewn so much dread and hatred' (Tench 1979:205).

Ross (1976:60) notes that the spear used to kill McEntire had a stone barb whereas most in this coastal area had bone barbs (Megaw 1969:213). She postulates that the spear was intended for this specific victim and was a 'death spear'.

Death spears, it seems (Davidson 1934:147) were only made for the one use - to kill one particular person- and were made in such a way that the stone barbs would break out of their haft once the prong had entered the body (Ross 1976:61).

This incident led to government action against Pemulway's people who lived on the northern side of Botany Bay.

In 1800 there was still apparently a relatively large Aboriginal population around the foreshores of Botany Bay and in the gullies north of the Bay. From 1810 to 1830 the occupancy of the Aborigines was seriously disturbed by European hunters and fisherman (Anon n.d: 9).

Gojak (1992) describes a hiatus in Aboriginal occupation of the area between the first major phase of occupation up until the early 1800s, and the start of a second phase of occupation, possibly 'as early as 1870' (Gojak 1992:5). He notes that the area was sufficiently remote from the city to allow the authorities to ignore the Aborigines. However other sources note that by the 1850s there was a "Blacks Camp" at La Perouse, where Aborigines from other areas took refuge. A Constable Byrne reports on thirty-five Aboriginal residents at La Perouse, and another smaller camp at Botany in the 1880s (Report of the Protector of Aborigines 1882-83). Surmon (1965), states that these Aborigines probably originated from the Illawarra. Most of the present Aboriginal community is probably descended from south coast groups.

6.3 Permanent European Settlement in the Area

Subsequent European settlement in the area occurred by extension from Port Jackson (Pringle 1979). Land grants were made to Europeans from the 1820s onwards, with the first private land grant on which a private dwelling was built being made in 1823 (*Bunnerong House*).

Troops were stationed on the La Perouse headland from about 1820. They were initially housed in huts, and then in a stone tower built around 1821. In 1833 the tower was used as a customs house. In 1832 some small huts were erected to the east of the tower. In 1861 and 1863 cottages were constructed for boatmen working at the customs station. An 1867 parish map shows a boat house on the shores of Frenchmans Bay (Kass 1989 in PWD 1990:15-16).

Nearby to the northwest, in 1834 at a sale of Crown Land, Thomas Kellett bought the land on which he was later to build the Sir Joseph Banks Hotel. The Hotel itself was probably built around 1844 (Silva 1978). The Sir Joseph Banks Hotel still exists today and is located several kilometres to the northwest of the current study area (see below).

In the latter half of the nineteenth century La Perouse continued to be developed, principally by extension of existing facilities. A road to the headland from Sydney was surveyed and built in 1869 (Kass 1989). A telegraph cable was laid from New Zealand to La Perouse in the 1870s and construction of the Bare Island Fort commenced in 1881. However the population of the area was still sparse, comprising mostly Aborigines, telegraph workers and the military.

The beginning of the twentieth century saw a tramline to La Perouse opened in 1902 and a jetty constructed on the western side of the headland in 1905. A road linking the tram terminus to the jetty was constructed, allowing visitors to access the area by ferry from Kurnell (Kass 1989). Suburbia slowly moved southwards from Maroubra after the Second World War. The tramline was removed in the 1960's and a new ring road around the headland was constructed.

6.4 Early Industries

Early industries in the Botany Bay area included grazing, fishing, market gardening, boat building, wool scours and tanneries, and the production of shell lime and salt.

6.4.1 Fishing

Fishing was one of the earliest activities that took place within the Port Botany study area. A fishing village, known as 'Fishing Town' existed on what was originally Lord's Grant and later became Bay St, Booralee St and Luland St. Before foreshore reclamation work began as part of the development of the existing port, this village was situated adjacent to the beach. Jervis (1938:57), cites a second fishing village depicted on a locality plan dated to 1840 or 1841, which was established on the beach near John Brown's Bunnerong Grant. Both these villages were located outside the Port Botany study area.

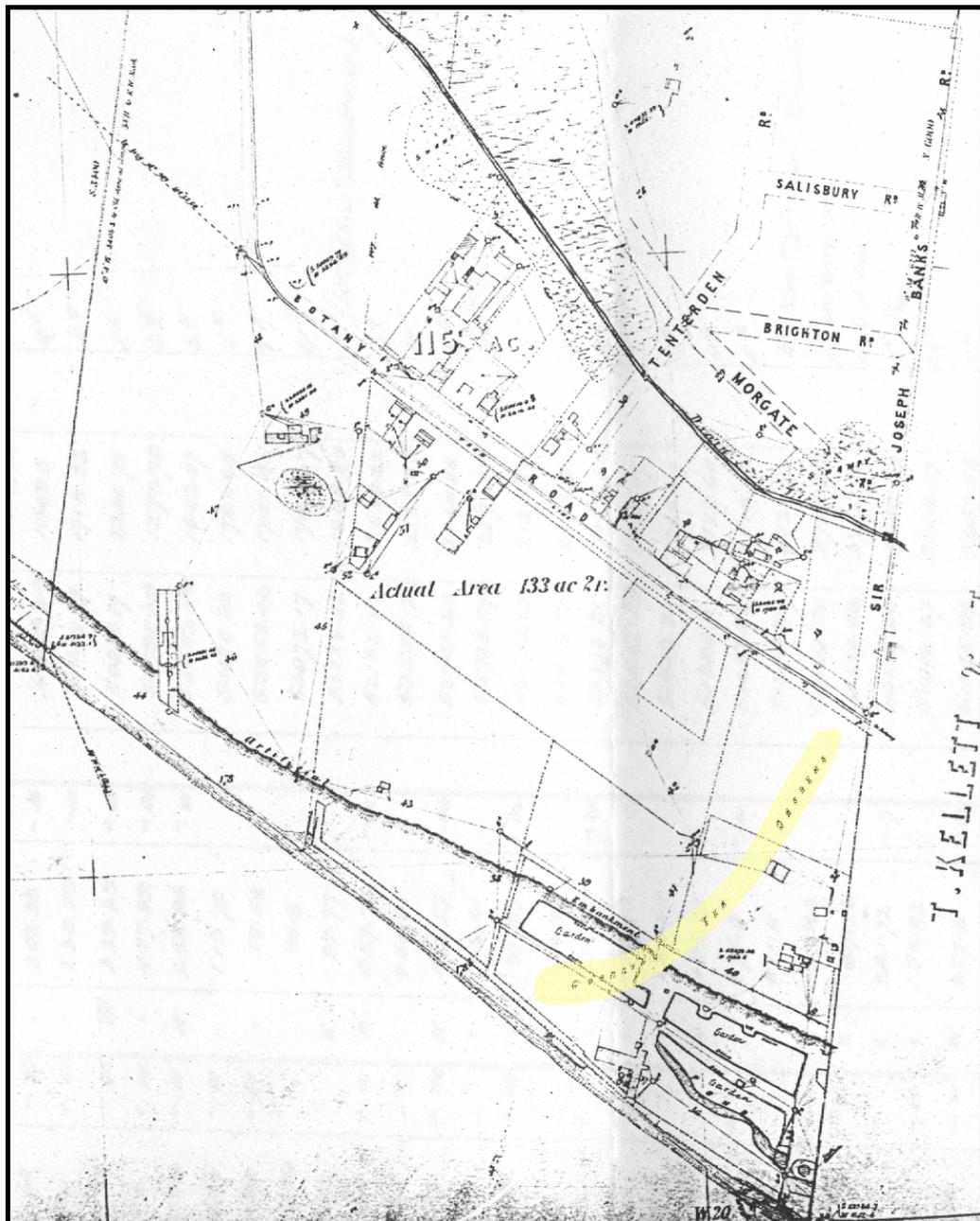


Figure 4 Market and 'tea' gardens on Botany Bay foreshore
(Sydney Water – Botany General Survey, Sheet. No. 8. Survey completed 1883)

6.4.2 Market Gardening

The earliest reference to market gardening in the area was made by an observer named Backhouse in the 1830s (Larcombe nd: 13). Backhouse describes the swamp areas of Botany being converted into gardens. The Botany market gardens were the main vegetable supply for Sydney - they supplied Sydney with constant fresh produce even during periods of drought (Larcombe nd:13). A large portion of Lord's land near Cooks River was let out to market gardeners. Hancock's and Lobb's Gardens were also quite extensive (Jervis 1938: 64). A Plan of Botany surveyed on November 26, 1887, shows Correy's Tea Gardens on the shore, opposite where Sir Joseph Banks Road now enters Botany Road (Figure 4).

6.4.3 Lime Works, Wool Scours, Tanneries and Paper Manufacturers

Lime burning was one of Botany Bay's earliest industries. Rich (1986) notes that the explorer Peron, who visited Botany Bay in 1802, refers to the production of shell lime in the Bay (Larcombe n.d.). The earliest Sydney lime mortars were derived by burning accumulations of shell found just above the high tide mark, particularly around Botany Bay and the Georges River. Aboriginal middens were also 'mined' for lime throughout coastal NSW. After 1804 supplies of shell lime for Sydney came mostly from Newcastle. Gangs of convicts dug up the shells, sifted them and then piled them over large heaps of wood and the whole lot were burned (Gibbons 1979:60). It seems probable that the Aboriginal midden sites recorded along this part of Botany Bay were exploited for lime. Both lime and timber were transported by sea from Botany Bay to other parts of the colony requiring building materials from as early as 1802 (MSB 1976:36).

Simeon Lord was known to have opened the first Wool Mill in Botany Bay, after receiving a 135 acre land grant near Cooks River in 1812 (Thorpe 1990: 6). An 1888 plan of the study area foreshore depicts the 'State Sand, Lime and Brick Company' situated close to the shore, near the Government Pier (see below). Other prominent industries also detailed on this plan are a wool scour, Armstrong Tannery and a paper mill. (Figure 5) .In 1914 there were 40 tanneries and wool scouring establishments existing within the Botany municipality (*Sydney Morning Herald* 11/4/1914).

6.4.4 Boat Building

Photographs of nearby Frenchmans Bay in the first decades of the twentieth century show numerous boatsheds along the beach. The boat building industry in the area was apparently destroyed by the war, when boat construction was centred on the war effort (correspondence - NSW Heritage Office to Randwick City Council S96/1014/3:1999).

6.4.5 Botany Water Works

Botany Water Works supplied Sydney's water from 1858 - 1888 and a jetty associated with this development was located nearby on the foreshore.

6.4.6 Recreation and Tourism

La Perouse and the Banksmeadow area have had a long association with recreation and tourism. As early as the 1830s the area was a location for society picnic parties from Sydney. The Sir Joseph Banks Hotel established a long history of sporting recreation and in its heyday it boasted a jetty with bathing houses, five cinder running tracks and a grandstand and stadium that seated several thousand people.

In 1882 the tramline was extended to Botany and a tradition commenced where participants and spectators of the annual St Patrick's Day march in the city would journey by tram to the area for a day of sporting events and picnicking (Silva 1978). By the beginning of the twentieth century guesthouses were established at Yarra Bay. The construction of the tramline to La Perouse in 1902 substantially increased tourist visitation to the area.

Prior to the construction of the Bunnerong Power Station in about 1929 the foreshore, which was then in the vicinity of Bumborah Point Road, was dotted with modest weekenders of Sydney's well-to-do merchant class, and the area was still regarded as semi-rural.

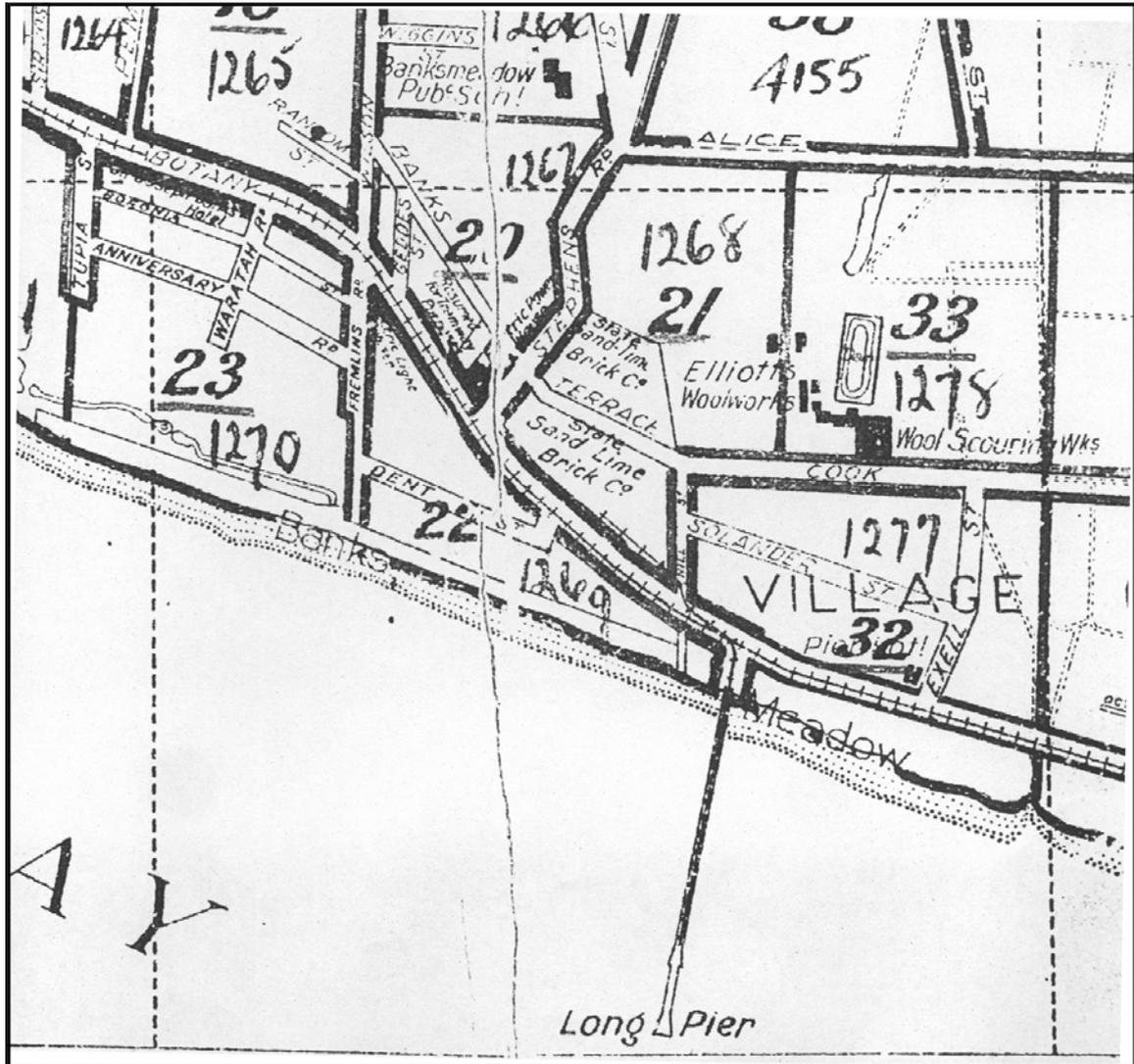


Figure 5 Plan of foreshore in 1888 (H.E.C. Robinson UBD 1888)

6.4.7 The Sir Joseph Banks Hotel

At an auction held on April 11, 1834, Thomas Kellet formerly a Private in the 40th Regiment and James Drew formerly a Sergeant in the 4th Regiment purchased 75 acres of land. (Figure 6). Drew later pulled out of the sale and the title was granted to Thomas Kellet who subsequently built a two-storey structure 13 m long and 8.5 m wide with four large rooms on each floor on part of his land near the foreshore of Botany Bay. The building, with a Georgian façade and upper floor balcony facing the Bay, forms part of the Sir Joseph Banks Hotel and can be seen on the southern side of the existing building (Silva 1978:5). On October 14, 1844, Kellet applied for a wine and beer license for the Sir Joseph Banks Hotel, Botany. The license was granted on October 26, 1844.

On News Years Day 1845 Kellet held an opening party. To which he

'...invited a number of visitors from Sydney as well as most of the employees from the other establishments in the vicinity. A large marquee was erected and the grounds were decorated with flags for the celebration.

The highlight of the day was to be the monster barbecue of a bullock which after being skinned and dressed was suspended on a cross bar supported by two forked posts, set in the

grounds of the hotel. During the day a large fire was lit beneath the bullock and the crowd waited in eager anticipation for the forthcoming meal.

When eventually the bullock was cut down it was found that only the outer portion had been cooked and the remainder of the flesh was still quite raw. The disappointment of the invited guests became a windfall for the 200 Aborigines who having gatecrashed the party subsequently had a feast on the undercooked beef while the other guests engaged in sporting activities in the grounds and enjoyed their hosts hospitality in the hotel' (Silva 1978: 6).

During the early stages of the hotel's history it was advertised as a popular place for weddings and honeymoons (SMH 21/4/1845). Over time, the hotel developed a reputation as a sporting venue. Kellet cleared a three mile riding course through the surrounding scrub and sand dunes and he held steeplechases there. On December 1, 1846, Kellet leased the hotel to William Beaumont. Beaumont was the lessee from 1846 - 1861 and he added several improvements - in 1847 he advertised that he had a jetty that was 'nearly 1/8 of a mile (approx 201m) in length affording sufficient depth of water at most stages of the tide, in the bathing houses at the outer end' (SMH 1847). By 1850 Beaumont had constructed an outdoor sporting amphitheatre that could seat 2,000 persons (Silva 1978:9-11).

An advertisement in the Sydney Morning Herald (SMH 11/12/1850) described the Hotel as '*one of the most distinguished of its kind in the colony.*' The advertisement provides a description (although probably embellished for the purpose of drawing customers) of the facilities offered by the venue. These included:

- extensive gardens that stretch down to the waters of the Bay,
- a conservatory,
- the zoological and ornithological collection, '...in which will be found almost every beast and bird peculiar to the colony, as well as many imported specimens of natural history,'
- riding tracks and horse riding lessons, 'while those confident patrons could borrow horses and riding gear for their own excursions of the area';
- sea baths at the end of the Sir Joseph Banks Hotel Jetty, where patrons could relax and swim in the baths, and were supplied with practical bathing wear, and
- boating trips

At this time there was also a cricket oval (added in the 1860s), a bowling green and an archery range. The zoological gardens had become so reputable, that the State Governor, Lord Carrington, offered to buy the gardens from Mr. Frank Smith, the then owner of the Sir Joseph Banks Hotel. The sale did not go through as the Governor offered £30,000, £5,000 less than the amount for which Smith was willing to sell his property. Smith erected a new hotel in 1884, with a running track and grandstands. The hotel became a metropolis for sporting events. In later years Smith's business failed financially, but still the hotel remained opened (SMH, 11/4/1914). (Figures 7 and 8).

The area had begun to lose its attraction to tourists by the early 1900s as it became less remote. In 1935 Botany Council proposed knocking down the building and building Municipal Baths on the site. This proposal was approved on May 15, 1935 but fortunately the proposal was abandoned on May 29 because of lack of funds (Silva 1978:42). In 1945 the then owner, Mrs Rutley, divided some of the rooms into self-contained flats.

In 1968 Botany Council made an application to the State Planning Authority (SPA) to declare the hotel and adjoining grounds to be of historical significance under the provision of the County of Cumberland Planning Scheme ordinance. However the application was refused although the SPA recognised it as a local landmark. In 1969 the building was listed on the National Trust Register of Historic Buildings and it was 'Classified' in 1974, reflecting the National Trust's view that it was 'essential to the heritage of Australia and must be preserved.' In March 1978 the building was listed on the Register of the National Estate. In 1985 the Maritime Services Board, having purchased and conserved the Sir Joseph Banks Park, handed it over to the Botany Council.

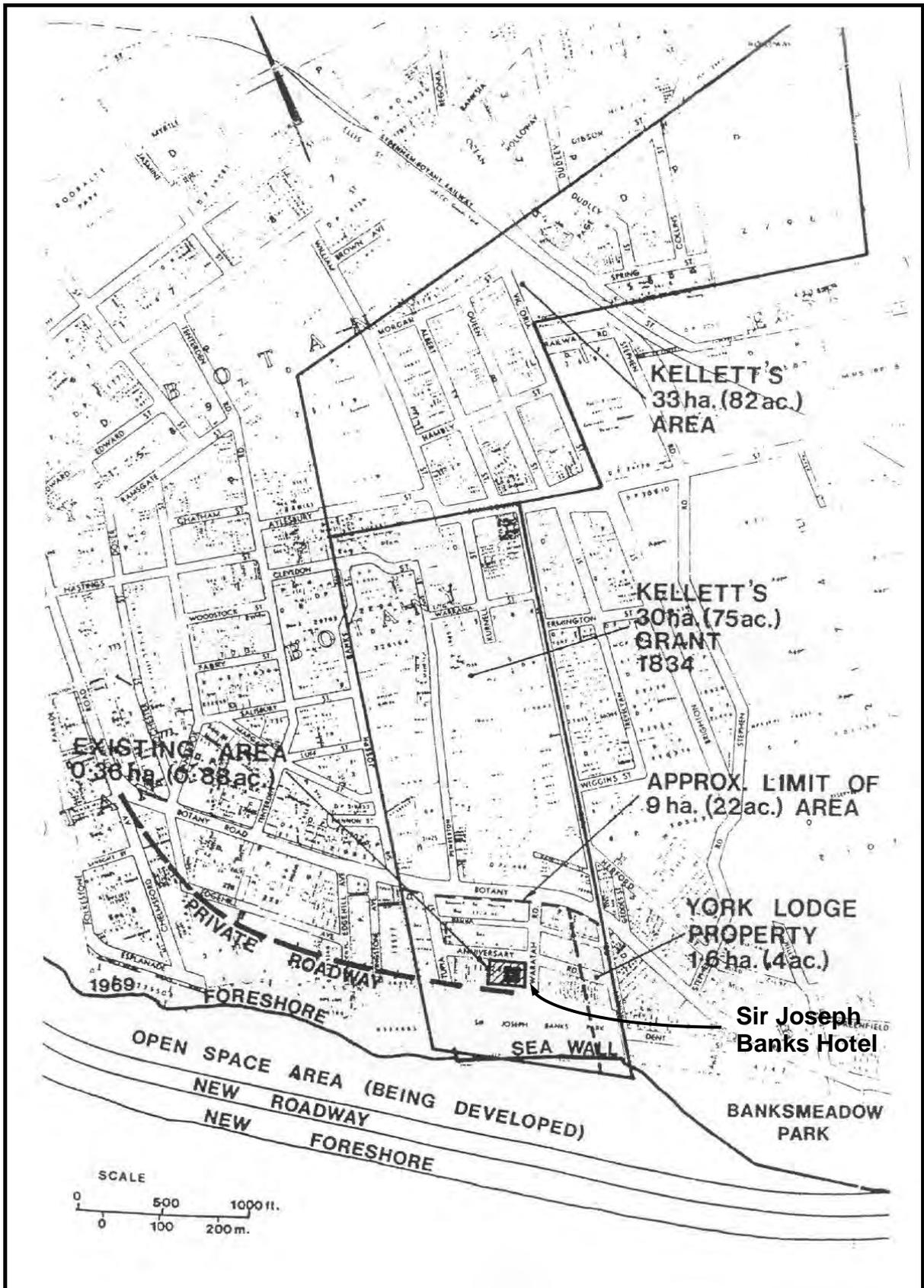


Figure 6 Map showing Kellett's landholdings. Note the location of the Sir Joseph Banks Hotel and the seawall that marks the old shoreline. (Source E. J. Silva 1978 A history of the Sir Joseph Banks Hotel, Botany)

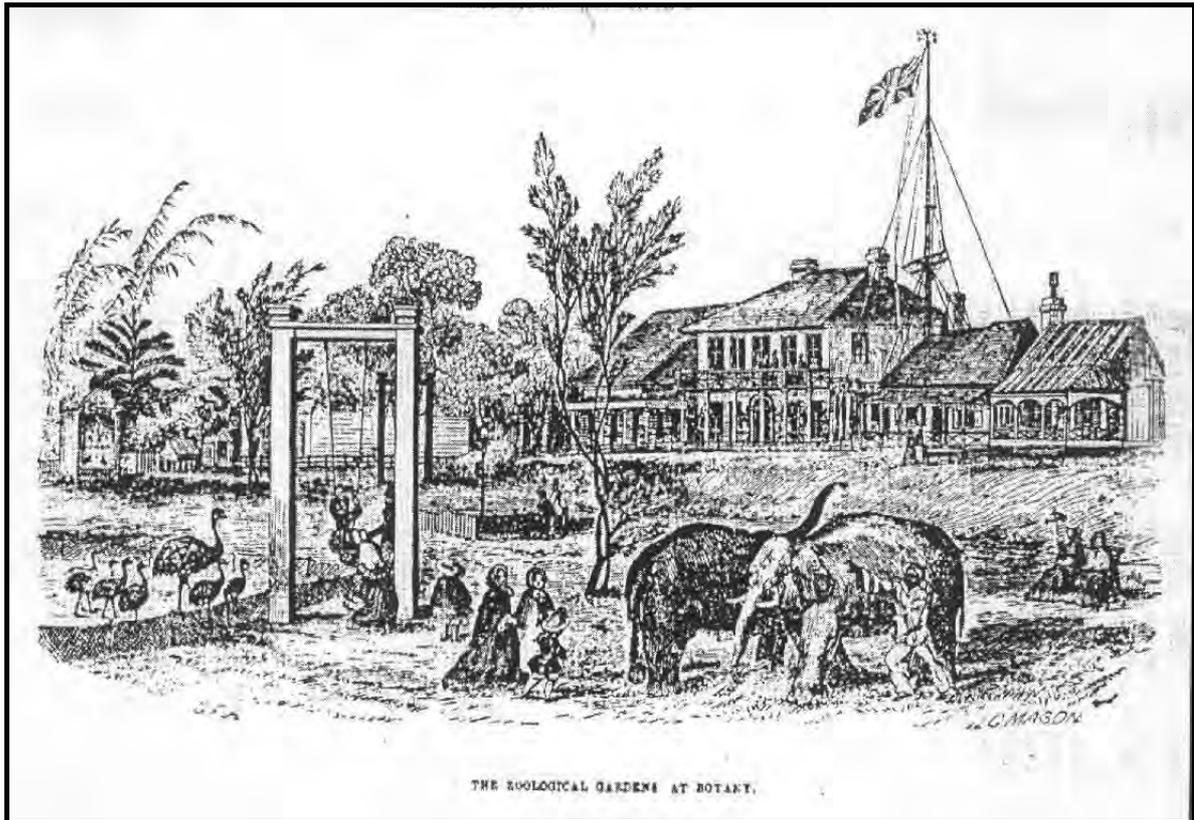


Figure 7 Sir Joseph Banks Hotel: engraving from the Illustrated Sydney News 30th June 1855 (from Silva 1978:Figure 8).

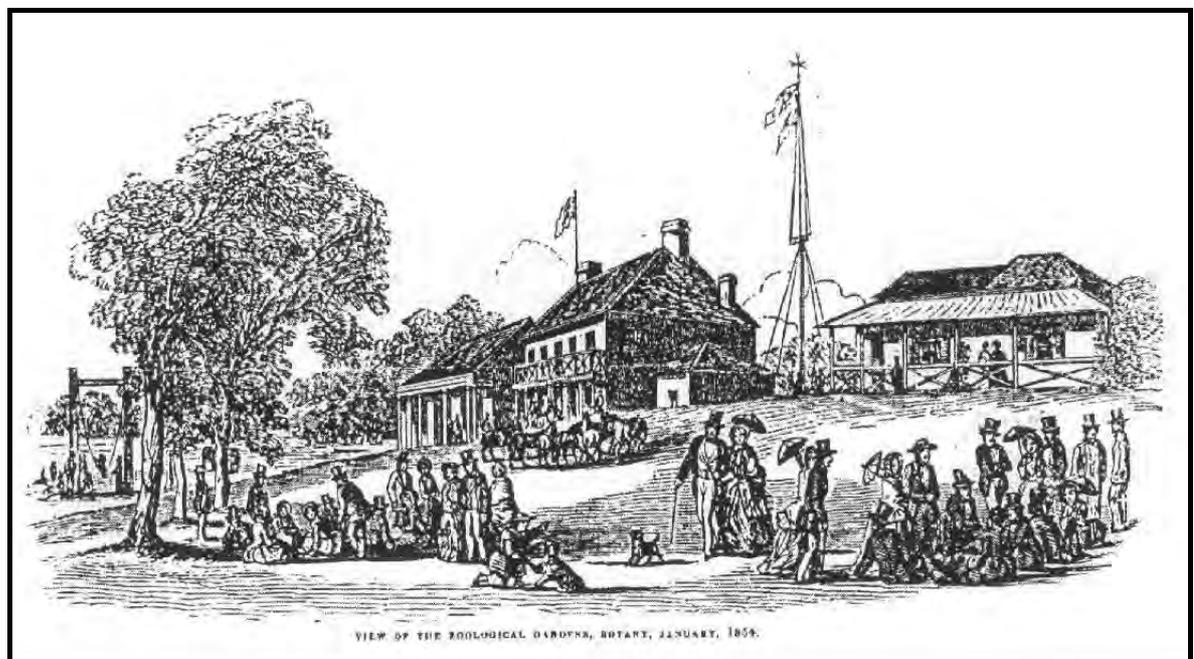


Figure 8 Sir Joseph Banks Hotel: engraving from the Illustrated Sydney News 14th January, 1854. (from Silva 1978:Figure 7)

6.5 Government Pier (Long Pier)

In 1880 the Government Pier or Long Pier was built at Banksmeadow as '...a considerable amount of departmental material was being landed at the wharf for the Sand Lime Brickworks, and it was considered desirable that such material should be free from wharfage rates' (Cooper 23/8/1920). Its principal purpose was to unload coal from Newcastle to supply the needs of the burgeoning industries established in the area. A tramway associated with the pier was opened in May 1882 (Jervis 1938:98). This tram ran along Botany Road right past the Sand, Lime and Brickworks, down Pier Road and onto the Government Pier (Jervis 1938:238).

On February 18, 1921 the Government Pier was 'denationalised' and handed over to the Botany Municipal Council (Cooper 4/3/1921). Under Council control, nine coal bins were purchased, from Howard Smith's Wharf, Darling Harbour, and re-erected on the Government Pier. Not long after, another two bins and seven hoppers were erected on the pier. Between 1921 and 1937 the revenue from the wharf exceeded £21,000, whilst expenditure was less than £6,000.

The pier was still in use when the Bunnerong Power Station was built by the Sydney Municipal Council (later known as the Sydney County Council) in about 1929 (ie. the year that Bunnerong A unit was installed). Coal to supply the power station was unloaded from steamers onto the jetty and taken by train to the power station (Larcombe nd:119). At its peak, the coal trade amounted to 15,000 tons a year (MSB 1979:2).

Around the same time as Bunnerong Power Station was being commissioned, the Australian Oil Company H. C Sleigh Ltd. established a terminal on the Alexandria Canal. In 1948 Bitumen and Oil Refineries Australia Ltd (BORAL) established a refinery at Matraville on the northern side of the entrance of Botany Bay. At the same time a tanker mooring buoy was laid off Yarra Bay, with a submarine pipeline to Yarra Point to carry crude oil direct from ships to the refinery (MSB 1976:36). Other pipelines and moorings were established off Yarra Bay and Bumborah Point in subsequent years. Generally the development of port facilities for industry before 1950 was on a relatively small scale when compared with modern operations. The developments carried out before 1950 were designed to utilise the naturally deeper waters of the northern foreshore (MSB 1976:36). These naturally deeper waters explain in part the occurrence of early industry in the study area.

By 1961 the jetty was being used by the firm R. C. Bradshaw Pty. Ltd. for sand-dredging operations. The coal bins were being used in the operations to store sand (Wharf Inspector 2/3/1966). By this stage the condition of the wharf was starting to deteriorate and Bradshaw had taken some measures to strengthen the piling by dumping ballast under the jetty (Harbour Master 9/8/1961). An inspection of the wharf made on February 22, 1966 found that a substantial area at the outer end of the stone pier had been washed away. The Wharf Inspector reported:

'For the greater part of its length, this jetty is constructed in stone and it is extended at the outer end by a substantial timber wharf structure. This timber section contains large 'hopper' bins, which it is assumed were formerly used for coal storage. The bins on the eastern side are in a state of partial collapse, but some of those on the western side are presently in use for sand storage...

The timber structure at the outer end is very old and weathered and in very poor general condition. The piles, some of which are eaten off, are at 10' centres transversely and 16' centres longitudinally. These are spanned by 12" x 6" cap wales at 16' centres, which in turn support 12" x 12" girders at 5' centres. These sub-structure timbers are in poor condition. The original decking is of 9" x 4" timber and is so old and weathered as to be practically useless. In order to in some way stabilise the structure, R. C. Bradshaw Pty. Ltd. have tipped a large quantity of stone around the piles and up the underside of the girders, this treatment being confined to those sections of the structure which they use and over which their trucks pass. In addition, 9" x 4" decking has been laid at right angles to the original decking, to accommodate the wheels of the trucks' (Wharf Inspector 2/3/1966).

No repairs were carried out on the jetty and an inspection made on October 24, 1968 disclosed that the jetty was not being used. All the sand dredging equipment and shed remains were still on the end

of the jetty, in a state of disrepair (Wharf Inspector 28/10/1968). By December 1969 the machinery was removed from the jetty (Wharf Inspector 28/1/1970), and in 1970 demolition of the jetty began. The contractor employed to demolish the jetty commenced by burning the pier. The Council did not approve of this method and so the demolition work was stopped (Madden 8/6/1970).

Further wharf inspections drew attention to the ballast which had been placed under the jetty, and the hazards this could cause for ships once the jetty was removed (Wharf Inspector 24/6/1970). The wharf Inspector was further concerned stating

‘...that a considerable amount of unsatisfactory filling has been placed at the outer end of the reclaimed area, the filling consists of top soil, grass, brickbats, broken concrete, timber, old corrugated iron etc. This filling has been used to cover demolished timber from the jetty structure and is considered most unsatisfactory due to its nature and should be removed. Heavy seas could spread the filling over a large area of the adjacent bed and the timber could become a navigational hazard in this event. The filling no doubt would be unsatisfactory to be left on the area for the future reclamation in conjunction with the port development’ (Senior Wharf Inspector 27/8/1970).

Over the next few years the Port Authority corresponded with the Botany Council reminding them of their duty to remove the pier (File 98/00107). Up to the present no further deconstruction work has been carried out on Long Pier.

6.6 Reclamation and Dredging

6.6.1 Early Land Reclamation and Dredging to 1970

Reclamation schemes have been a major feature of both past and proposed developments on the shores of Botany Bay. Between 1869 and 1905 the government dedicated 24 acres of foreshore in Banksmeadow as a public reserve (Jervis 1938:220). It was observed as early as 1891 that the Botany foreshore was eroding, and by 1922 nearly all of the Banksmeadow Park westward of the Government Pier had been eroded away (Jervis 1938: 227).

Clark (1992:11) wrote that ‘landfill and reclamation works on the Banksmeadow foreshore took place from 1927 to 1932. This work moved the shoreline 130 metres further into the Bay’. No reference was cited to support this statement. Jervis (1938:230-2) produced in his history of Botany a copy of the Mayoral Minute no. 23 by Mayor G. F. Anderson, written in 1930. The minutes record the Mayor proposing extensive dredging and land reclamation near Banksmeadow Reserve and Sir Joseph Banks Park. However Jervis (1938:232) added that ‘...nothing, thus far, has been achieved in that direction’, except in 1936 where a seawall was built along the foreshore of Sir Joseph Banks Park.¹ The wall was intended to prevent the erosion of Sir Joseph Banks Park.

Firmer evidence of land reclamation near the study area in the first half of the 20th century is available with commencement of the construction of the Bunnerong Power House in 1927. This resulted in a large quantity of surplus spoil being deposited on the beach adjacent to the eastern end of Banksmeadow Reserve. The mass of spoil added eight acres to the reserve. It was levelled and grassed in 1929, and was gazetted as an addition to the reserve in February 1932 (Jervis 1938:220). Likewise, Sir Joseph Banks Park was levelled in 1931 (Jervis 1932:222-3)².

Having stated the above, a 1976 report by the Maritime Services Board claims that even before reclamation for the Port Botany project began in 1971, very little of the northern foreshore between Bumborah Point and the airport followed the original shoreline; ‘...Bunnerong Power Station, the Banksmeadow Oil Terminal, Banksmeadow Park, the Mill Ponds area and Kingsford Smith Airport can all be associated with reclamation beyond the natural shoreline’ (MSB, 1976:37).

¹ Photographs of the seawall and it being constructed exist. Jervis (1938:221-3) has included copies, but it is not known where the originals are held.

² Photographs of the park being levelled exist. Jervis (1938:221-3) has included copies, but it was not known at time of writing where the originals are held.

The construction of Sydney Airport from 1947 onwards involved the diversion of the mouth of the Cooks River. In 1958 the Botany Bay Land Reclamation Committee was formed and in the following years a number of reclamation projects were approved. While some proposals were received which involved reclamation through the dumping of garbage as fill, this was not favoured and generally all reclamation projects have involved dredging of the Bay to provide the fill.

In 1960, with the establishment of the Australian Oil Refinery P/L facilities across the Bay, a submarine pipeline was constructed linking the AOR facilities (southern foreshore) and the Boral facilities on the northern foreshore. MSB documents note that

'The extensive dredging works undertaken in 1953/55 and 1960 resulted in changes to the wave action at Silver Beach, Kurnell, causing erosion of the 1,370m section of the beach west of the AOR jetty and extensive accretion further to the west, in the vicinity of Bona Point. While these works were carried out before the Board became the development authority for the Bay in 1961, the resulting problems, which become increasingly apparent during each severe storm, were inherited by the Board' (MSB 1976:360)

In 1964 the Department of Works began construction on the north-south runway of Sydney Airport into Botany Bay by dredging approximately 3.5 million cubic metres of sand from an area of the Bay near Lady Robinsons Beach for use in the runway reclamation. The bed of the Bay was originally 4 m below low water, after dredging it was 8.3 m below low water (MSB 1976:39). It soon became apparent after this work resulted in serious erosion in some areas and accretion of sand at other locations (MSB 1976:39). This runway was extended in length by nearly 4 km in 1970, causing more reclamation to occur, through dredging approximately 8 million cubic metres of sand from the Bay. This time, with the benefit of the outcomes of the Board's hydraulic study, the dredging pattern attempted to alleviate the earlier problems, as well as provide channels required for the new port development (MSB 1976:40 and Figure 9).

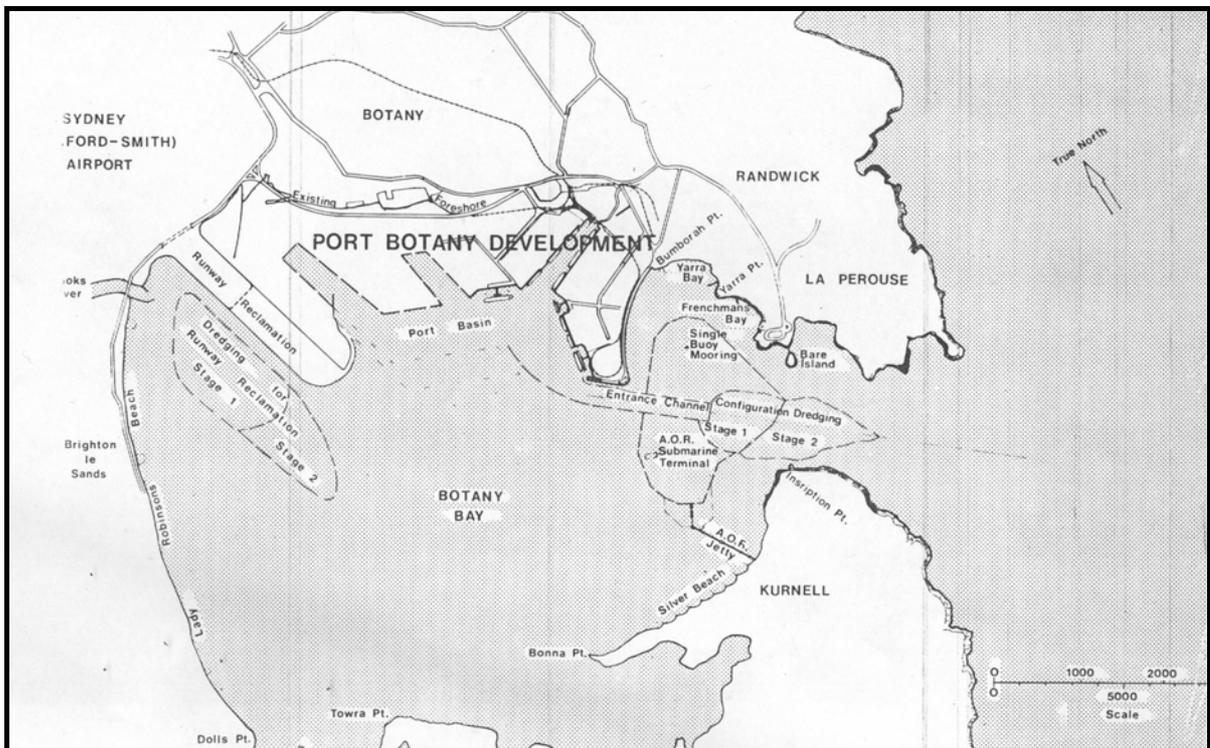


Figure 9 Dredging of Botany Bay up to 1970 (SPA - MSB, 1976)

(Note dredging locations only, the port development as mapped in this figure is not accurate as it was not undertaken in its entirety)

6.6.2 Port Development and Dredging after 1970

The construction of the Government Pier in 1880 could be said to be the first effort by the Government to establish Botany Bay as a functioning port. As has been discussed above, the Pier continued to function in a limited capacity as late as the 1960s. However as early as 1936 the MSB adopted a policy to develop the Bay for receiving 'bulk and special cargoes, particularly bulk oil and petroleum products, and in doing so hoped to divert some of the traffic from the busy waters of Port Jackson' (MSB 1976:36). The next step in the development of Botany Bay as a port was in 1948 when B.O.R.A.L. (Bitumen and Oil Refineries Australia, Limited) established a refinery at Matraville. Moorings and a pipeline were established off Yarra Bay to carry oil direct from the ship to the refinery (MSB 1976:36).

With the establishment of A.O.R. (Australian Oil Refining Pty. Ltd.) at Kurnell in 1955, extensive dredging was undertaken to provide an approach channel, a 825 metre long concrete jetty was built for vessels associated with the refinery (MSB 1936:36; Clark 1992:11). In 1960 further dredging was carried out to extend the A.O.R.'s marine facilities. A submarine terminal was constructed to the northern end of the jetty, suitable for tankers of up to 11.6 m draft (MSB 1976:36).

The MSB began construction on the present port facilities at Botany Bay in 1970 that included reclamation of land in Botany Bay. Deep channels and port basins were dredged (Clark 1992:12). The first stage of the Port development involved the dredging of 13 million cubic metres of sand for the approach channel, part of the initial basin and initial reclamation for the port (MSB 1976:67). The construction of Brotherson Dock involved 7.5 million cubic metres of sand being dredged for reclamation. It was during this time that the construction of the Foreshore Road and the reclamation of the foreshore to its present position took place.

It is not only the foreshore of the Bay that has been altered since European settlement. The bed of the Bay has been subject to a variety of impacts. For example, the navigation chart of Botany Bay dated 1981 indicates that there is a 5 m deep hole approximately 350 m from the northwest corner of the Patrick Container terminal (Figure 10). This hole is likely to have been dredged at the time of the construction of the Port Botany facilities.

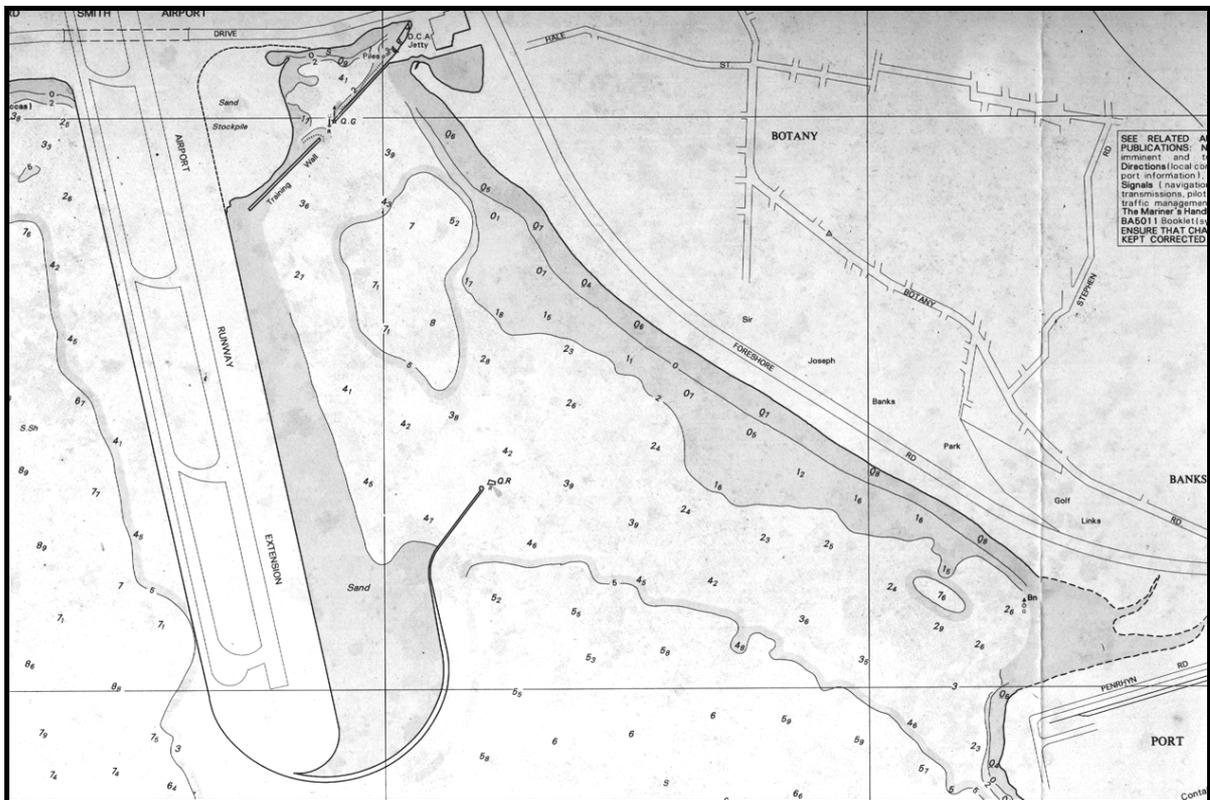


Figure 10 Seabed and study area in 1981 (AUS 199)

A current seabed contour map of the primary study area shows a large deep hole, approximately 1,000 x 300 m and 15 m deep, in the area where the proposed land reclamation is to take place (Figure 11). This was the area that was dredged for the building of the Parallel Runway (Kinhill 1990). The relatively high degree of disturbance to the seabed in the Bay in the vicinity of the proposed development means that there is a reduced likelihood of finding intact archaeological deposits, including shipwrecks over much of the area.

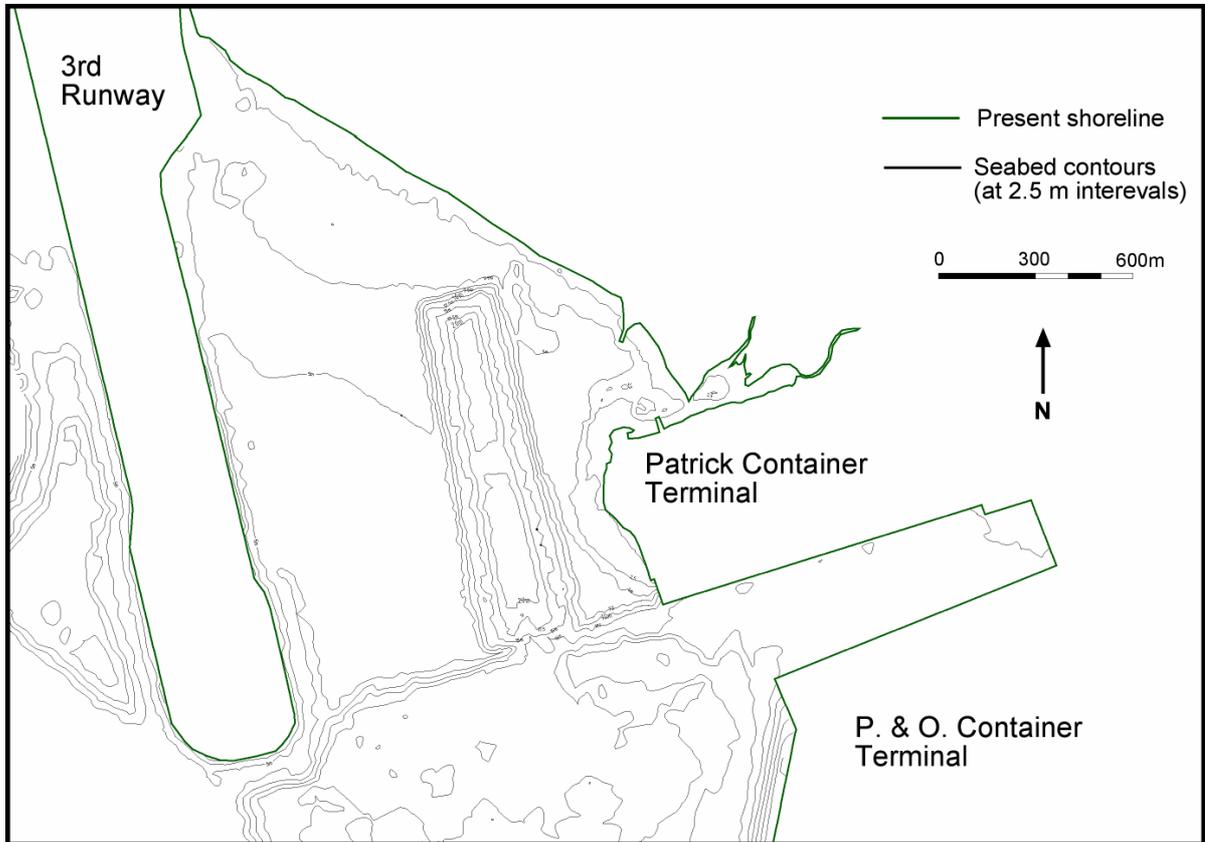


Figure 11 Seabed contours in 2002 (Sydney Ports Corporation B-PD-P-002A)

Table 2: Table of Important Dates for Botany Bay
(source: various - including undated manuscript 'Tome' Sydney Ports Corporation Library)

Date	C14 ref no., where relevant	Event
7,800 BP		Aboriginal people are known to have lived on the sand dunes on which the Prince of Wales Hospital is now located.
6,000 yrs BP		Modern day sea levels established.
5,600±70BP		Aboriginal people lived and made stone tools at Potter Point. NPWS ASR# 52-3-218
2,210±360BP	(ANU 261)	Dated evidence for Aboriginal people camped at Quibray Bay. NPWS ASR# 52-3-210
1,930±70BP till 470+60BP	(ANU 895) (ANU 896)	Aboriginal people lived at site at Boat Harbour. NPWS ASR# 52-3-216
1,330±100BP		Aboriginal people camped and were buried along the foreshore of Captain Cook's Landing Place. NPWS ASR# 52-3-219
1770		April 29 - Cook lands at Botany Bay
1788		Jan 18 - Sloop 'Supply' drops anchor in Botany Bay
1788		Jan 20 - 'Sirius' and 3 store ships plus 6 convict transports arrive at Botany Bay
1788		Jan 26 - French ships 'l'Astolabe and 'La Boussole' anchor in Botany Bay at La Perouse.
1788		Feb 7 - Proclamation of the Colony of New South Wales
1788		Mar 10 - La Perouse departs Botany Bay
1811		First Port Authority established for New South Wales
1834		11 th April - Kellet purchased land at Botany Bay, later to become the sites of the Sir Joseph Banks Hotel and York Lodge.
1845		1 st January - New Year's Day opening party for the Sir Joseph Banks Hotel attended by local businessmen and residents and invitees from Sydney along with 200 local Aborigines.
1871		Marine Board of NSW established under Navigation Act.
1880		Construction of the Long Pier/ Government wharf at Botany Bay-Banksmeadow by the PWD to handle cargoes of coal from Newcastle for industries located in the area
1882		Tramway from City to Botany opened.
1888		State Sand Lime Brick Company established adjacent to the study area.
1888		First wool scour operation established.
1888		4 th April - Municipality of Botany declared and classified as a Borough.
1899		As a result of the Royal Commission, Marine Board replaced by Department of Navigation.
1930		H. C Sleigh established bulk oil storage terminal at Botany Bay
1933		Maritime Services Co-ordination Board set up to report on 'the co-ordination and improvement of the maritime services of the State and the establishment of an appropriate standard of efficiency and economy.'
1935		Report submitted and Maritime Services Act, 1935, assented to establishing the Maritime Services Board of NSW.
1936		Feb 1 - Maritime Services Board commences operation under Act No. 47 of 1935. Board consists of Commissioners – three full time and two nominated by the Minister. Functions of the Sydney Harbour Trust and Dept of Navigation were amalgamated in the new board. The Act vested in one body the control and management of all the ports of NSW (with exception of Port Kembla) and the exercise by that body of the general powers of a navigation, pilotage and conservancy authority with jurisdiction over all navigable waters in the State.
1948		Boral built refinery at Matraville
1955		Caltex Oil refinery established at Kurnell
1958		First meeting of the newly formed Botany Bay Land Reclamation Committee

Date	C14 ref no., where relevant	Event
1960		Passing of the Maritime Services Amendment Act (1960)
1961		March 27 - First meeting of the newly constituted MSB Board under the Amendment Act. The amended Act provided for an increase in the number of Commissioners to seven. The amended Act also provided for an extension of the Board's jurisdiction to include the provision of wharves and associated harbour facilities at the ports of Newcastle and Botany Bay. The amendment required that one of the additional commissioners be identified with the port of Newcastle and the other to be Permanent Head of the PWD by proclamation in the Government Gazette. The bed and certain lands at Newcastle and Botany Bay were vested in the Board.
1962		July - Decision to retain the Hydraulic Research Station of the British Ministry of Technology to investigate Botany Bay's hydraulic characteristics against which proposed engineering work for the new development of Botany Bay as a port could be viewed.
1964		Commonwealth Department of Works commenced construction works for the north-south runway of Sydney Airport into Botany Bay. Approx. 3.5 mill cubic metres of sand were dredged from an area of the Bay off Brighton foreshore for use in the runway reclamation.
1965		July 8 - Sir Alexander Gibb and Partners of London commissioned to carry out an engineering feasibility study of Botany Bay under the terms of reference related primarily to the development of Quibray Bay for Port purposes. By decision of 19 November 1965 terms of reference were extended to include consideration of development of the north side of the Bay as well as the south, for port purposes.
1966		April - Sir Alexander Gibb and Partners submit their initial report on the feasibility and economic study into the development of port facilities at Botany Bay.
1967		December - Report of Sir Alexander Gibb and partners on detailed proposal for a new Port at Botany Bay.
1969		March - Government gives approval to MSB's proposal for development of the port of Botany Bay, including dredging of channels up to 21 metres depth together with reclamation of 607 hectares of land. However, not all of this development proceeded- only about 205ha was actually reclaimed.
1969		Sir Joseph Banks Hotel added to the National Trust Register of Historic Buildings.
1970		June - Initial dredging for Botany Bay development project commenced.
1970		Dredging/reclamation for airport runway extension commenced.
1971		March - Contract for stage 1 Botany Bay development let to joint venture of Atkinson International (Aust) Ltd and Leighton Contractors. Initial work on project commenced on 12 June 1971.
1971		Completion of \$2m Botany Bay model 1:120 scale covering 6,700 square metres.
1971		October 21 – Commencement of dredging, Botany Bay redevelopment
1972		Jan - By now some 80 acres of land were reclaimed at Botany Bay development
1973		September 20 - Premier Askin announces transfer of his control of MSB to Minister for Public Works, the Hon. Leon Punch MP. MSB Act amended. Since its inception in 1936, MSB had been responsible to Parliament through the Treasurer. From this date MSB became subject to direct Ministerial control.
1973		October - Completion of the dredging of the port approach channel and initial reclamation work at Botany Bay - removal of some 13 mill cubic metres of sand.
1974		March - Agreement for Sale between the MSB and Australian Paper Mills (APM) Ltd providing for transfer of reclaimed land in front of their existing waterfront property to the company in 5 years (based on pre board reclamation proposal by APM).

Date	C14 ref no., where relevant	Event
1974		Sir Joseph Banks Hotel 'Classified' by the National Trust
1976		Simblist inquiry into the Port Botany Project Commissioned.
1977		Completion of the 2 km \$55M revetment wall at Port Botany.
1978		March - Sir Joseph Banks Hotel added to the Register of the National Estate.
1979		First berth at new Port Botany for bulk liquids, opened by Jack Ferguson.
1979		ANL Terminal at Brotherson Dock Port Botany commissioned doubling container handling capacity of Sydney's Ports.
1982		CTAL terminal at Botany commissioned.
1985		Opening of the \$4.7M 28.5 hectare Sir Joseph Banks Park at Botany. MSB then handed it over to Botany Council.
1991		April - Award of \$6.24M contract for seawall at Bulk liquids storage area- Port Botany.
1992		2 nd April - Completion of Port Botany bulk liquids area sea wall.
1992		September - Formal announcement by the Minister Baird of proposed construction of the \$18M second bulk liquid berth at Port Botany, however this was never built.
1992		Construction of Parallel Runway at Kingsford Smith Airport
2001		Announcement in November of the start of EIS process re further expansion of port facilities at Port Botany.

7. KNOWN AND POTENTIAL ABORIGINAL SITES

7.1 Previous Studies

There have been many archaeological investigations around Botany Bay and the nearby coastline. Site types recorded include shell middens, shelters with art/deposit/midden, rock engravings, open artefact scatters, scarred trees and burials. The sites have been variously recorded by professional archaeologists and interested amateurs, and it appears that over the years multiple recordings have been made of some sites. At times there are significant disparities between original recorded locations for archaeological sites and NPWS Aboriginal Site Register locations are common. Most sites on the NPWS Register are identified with a thirteen-figure grid reference from the Australian Map Grid (AMG). However, many of these map references have, in some way, been extrapolated or translated from original and less accurate site recordings, or from imperial map grids or small map scales into a standard metric grid and scale format, and as a consequence are often approximate.

Numerous archaeological investigations relating to Aboriginal heritage have been conducted around Botany Bay. Areas investigated include, but are not limited to: Yarra Bay-Bumborah Point (Ross 1979), Frenchmans Bay (McIntyre 1985, Navin Officer Heritage Consultants 2000), Third Runway (Haglund 1990, Navin 1992), Yarra Point (Rich 1986), Botany Wetlands (Crew 1991), Bare Island and La Perouse headland (Haglund 1989), Phillip Bay (Sullivan 1992a), La Perouse (Sullivan 1992b), Little Bay (Dallas 1996), Towra Point (McIntyre 1985), Kurnell (Smith et al 1990) and Malabar (Dallas 1999). Excavations have been conducted at Yarra Point (Rich 1986) and Randwick (Godden Mackay & Austral Archaeology 1997).

The majority of Aboriginal sites on the NSW coast date to within the last 6,000 years when sea levels eventually stabilised around the present level (the Holocene). Following the stabilisation of sea levels, the development of coastal estuaries, mangrove flats and sand barriers would have increased the resource diversity, predicability, and the potential productivity of coastal environments for Aborigines. In contrast, occupation during the late Pleistocene (prior to 10,000BP) may have been sporadic and the Aboriginal population relatively small. Sites older than 6,000 years are rare, as most of these would have related to previous shorelines, which have now been destroyed or submerged by rising seas. The majority of sites along the Sydney coast date to within the last 2,500 years. After the stabilisation of sea levels Botany Bay and La Perouse would have provided a rich environment for the Aboriginal inhabitants of the area.

In the south Sydney region only three excavated sites have provided dates prior to 5000BP. One of these is an Aboriginal hearth comprising over thirty sandstone cobbles and charcoal that has been dated to 7,800BP (before present). The hearth was located in the course of investigations at the Prince of Wales Hospital Destitute Children's Asylum Cemetery (Godden Mackay/Austral Archaeology 1997). These sites are not within the current study area but they do provide us with a regional known time depth for Aboriginal occupation.

7.2 Known Aboriginal Sites

Archaeological sites are known to occur along the shoreline in Yarra Bay and nearby Frenchmans Bay. The closest recorded Aboriginal site to the Port Botany study area is a rock engraving at Bumborah Point NPWS Site #45-6-639. This site is reported to occur just outside the development area. Its location will not be impacted by the proposed development. The site was first recorded in 1897 and includes engravings of two whales, on one of which is superimposed several fish and two anthropomorphic figures. It is described as occurring 20 feet above high water mark, in Botany Bay near the cemetery on a smooth rocky surface'.

It is likely that prior to the construction of the power station in 1929 by the Sydney Municipal Council, the shoreline would have contained a number of Aboriginal middens and campsites. Up until that time the area had been used as a low-key holiday home/weekender area by Sydneysiders and development along the dune had been minimal.

Prior to the various reclamation projects that have resulted in the modern shoreline of Botany Bay in the vicinity of the study area, Aboriginal sites would almost certainly have existed along the foreshore. The presence nearby of freshwater creeks and swamps and the food resources provided by the Bay itself would have meant that Aboriginal people would have hunted and fished and camped in the area. There are no outcrops of sandstone in the immediate vicinity of the study area so the most likely sites that would have occurred here would have been shell middens or campsites. However the natural shoreline is located well to the northeast of the current shoreline and in fact in the pre-contact and immediate post contact period the current shoreline would have been well below the high tide mark.

No Aboriginal sites are recorded as occurring in the Port Botany study area.

7.3 Potential (Submerged) Aboriginal Sites

Within the period of the human occupation of Australia, Botany Bay was once dry land (Figure 12). During the late Pleistocene a river valley ran in a north–south direction parallel to the present day Lady Robinson Beach and entered the sea at Bate Bay (Hann 1985:153 and 169). Sand dunes probably blocked the gap between Cape Banks and Kurnell, and extended westwards over the study area. Fluctuations in sea level during this period would have produced periodic occurrences within the dune complex of estuarine mud deposits (Hann 1985:169).

The present day sea level at Botany Bay had been reached by 6,200 BP while the dunes blocking the entrance to Botany Bay were breached approximately 2,000 years before (Hann 1985:170). The seabed at this time would have been very shallow and composed of re-worked Pleistocene dunes. This situation did not remain static and in a process that has continued into the historic period, waves and currents have eroded this deposit, hence the deepening Bay and exposing earlier Pleistocene deposits (Hann 1985:170, 171).

The topography of the study area prior to inundation would have been similar to that which existed along the northern shore of Botany Bay at the time of European arrival - scrubby sand dune systems punctuated by swamps in the hollows and occasionally linked by watercourses. The resources that were available in this diverse environment would have been just as valuable, and supportive of relatively large and sedentary populations, as they were to the inhabitants of the area at the time of the European incursion (Anheluk 1994:34).

During the latest rise in sea level the inhabitants of the study area would have gradually abandoned their camp sites and moved to higher ground. In the process, it is inevitable that they left behind cultural material. Such remaining artefacts would have been inundated by rising sea levels. The forces of wave action, tidal influences and currents would have washed away, or at least re-deposited, large amounts of artefacts. Organic materials in particular would have been exposed to both mechanical abrasion and biological attack and therefore would have stood little chance of surviving. Other more resilient materials such as stone tools would have stood a higher chance of survival. Despite this, the chances of any material surviving, or staying recognisable, in such conditions are low and it has been estimated that only one in one hundred thousand, to one in one million (1:100,000 to 1:1,000,000) of past materials have survived to the present (Price 1998:423).

The chances of survival for artefacts during inundation is moderated by their location. Artefacts exposed in the open would be most affected by environmental conditions. On the other hand, material left in somewhat protected areas would have stood a much higher chance of surviving *in situ*. Areas containing rock shelters and caves have the potential to contain significant cultural deposits. Many of these deposits, eroded or not, will be buried under marine sediments (Dortch 1997:30). There are several well document cases in which submerged terrestrial sites have been well preserved. One of the most notable being Lake Jasper in Western Australia where a test excavation was conducted on an inundated, soil hardened pan dating to 3,800 BP or older. This excavation yielded a large number of flaked quartzite artefacts and proved that such a project on a submerged site was possible and could yield significant data. Danish archaeologists have also conducted a number of underwater excavations on an early Ertolle settlement (Gron 1995). These excavations yielded organic materials from prehistoric dwellings as well as significant amounts of flint objects. Both of these sites are in relatively protected environments such as lakes and enclosed

waterways, which demonstrates the potential for survival of artefacts under such sheltered conditions.

To summarise, generally cultural material that has been inundated by changes in rising sea levels would have been exposed to, and affected greatly by, waves, tides, currents, etc. This would have had the effect of destroying any archaeological context. This statement can be somewhat moderated when dealing with cultural deposits associated with rock shelters, or in lakes and enclosed waterways.

Given the situation of the Port Botany study area, which is exposed to a five kilometre fetch to the south, it is very likely that open sites and middens would have been scrambled by wave action during inundation. Lithics from submerged terrestrial sites could be present, however, their contexts would be so ambiguous so as to greatly diminish their archaeological value. The geomorphology of the area suggests that submerged rock shelters potentially protecting archaeological contexts, and common elsewhere in the Sydney area, would be unlikely to be present. In addition to these natural effects there exists a large depression in the seabed within the study area that is the result of dredging for the Parallel Runway. No archaeological remains would be expected to remain in this part of the study area. The potential for submerged Aboriginal sites to be present in the Port Botany study area is negligible.

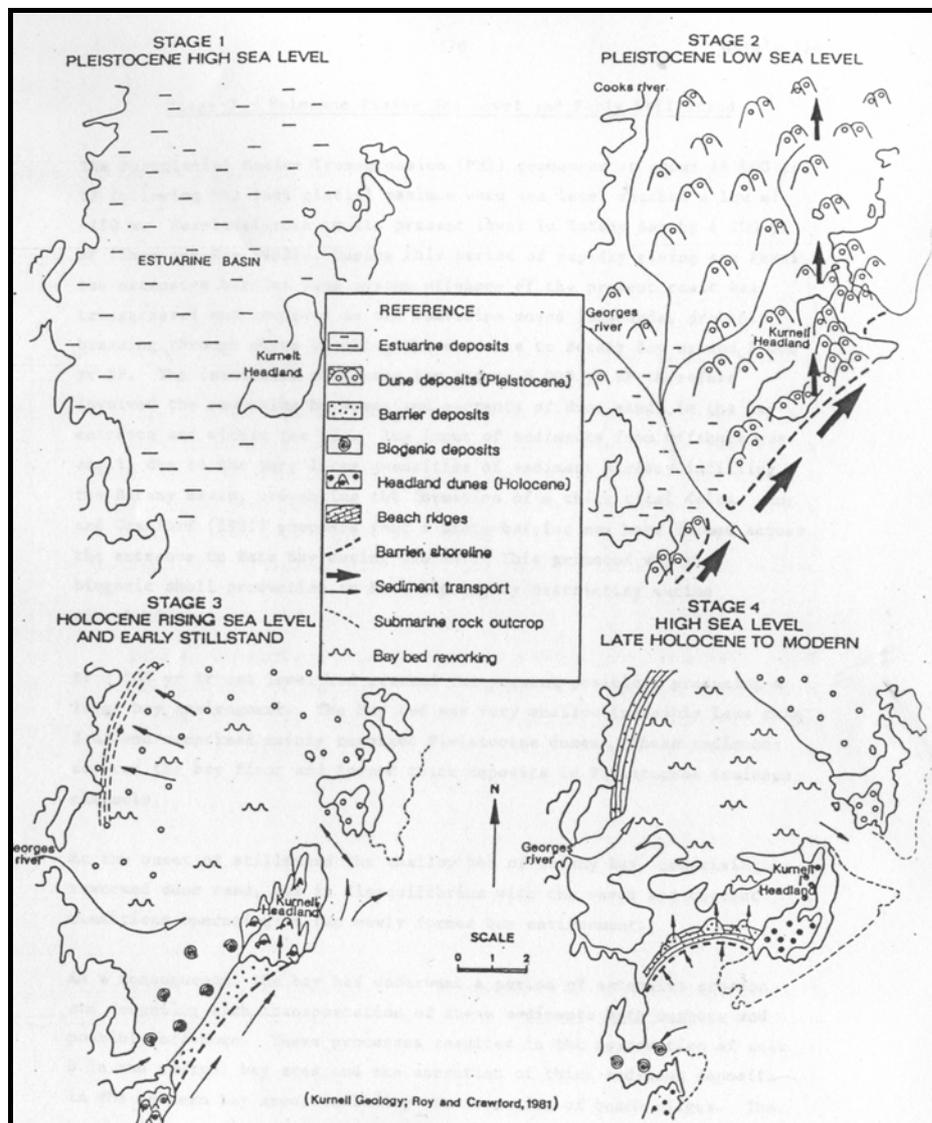


Figure 12 Botany Bay – Pleistocene to modern day (Hann 1985:figure 10)

8. KNOWN AND POTENTIAL TERRESTRIAL HISTORIC SITES

The reclamation works that resulted in the current shoreline means that early historic evidence of shoreline occupation and activity is likely to be well to the east of the current shoreline, on the other side of Foreshore Drive. Clear evidence of this is provided by the remains of the stone retaining wall that was once on the shoreline in front of the Sir Joseph Banks Hotel, but which is now located at least 400 m from the current shoreline.

The only possibility for potential archaeological deposits in relation to the historic period are items that may have extended into the Bay, for example jetties, wharfs, pipelines, or items which occur within the Bay, for example, baths, shipwrecks. The only known item that would have been long enough to extend beyond the current shoreline is the Government Pier that was built around 1880. This structure was still standing in 1960 but was then partially demolished. These items are discussed in Chapter 9, below.

9. KNOWN AND POTENTIAL MARITIME HERITAGE SITES

9.1 Previous Studies

Two previous archaeological studies are of relevance to this maritime study. These are Thorpe's (1990) European heritage component for the Parallel Runway Proposal Draft EIS, and Clark's (1992) maritime archaeological investigation of potential impacts of the construction of the Parallel Runway and dredging of preferred fill sites in Botany Bay, NSW.

Wendy Thorpe's report encompassed the 'land directly effected by the Parallel Runway proposal...' and extended into the present study area (Thorpe 1990:3). The historical information presented related mostly to the activities around the Botany and Lachlan Swamps, however mention was made of the remnants of the '...government pier...' (Thorpe 1990:12). Thorpe recommends '... that a record be made of the government pier, remnants of which survive on Botany Bay, if it is to be removed.' (Thorpe 1990:15).

Clark's report dealt with the construction of, and associated dredging for, the Parallel Runway. The importance of Clark's report is that a remote sensing survey for archaeological remains was conducted over the present study area (Figure 13).

Clark conducted his survey using a side scan and magnetometer. Apart from modern rubbish found at the end of the Runway and around channel markers and a mooring (engine block with chain) to the west of the remains of the Government Pier, no objects of archaeological significance were located (Clark 1992:21). Unfortunately the coordinates of the search area were not presented in the report.

The remains of the Government or 'Long' Pier were inspected. What was visible on the seabed were '...fallen pylons and granite foundation blocks...' as well as coal (Clark 1992:24). Clark states that the site has medium to high historical significance because it is '... the best preserved 19th Century maritime structure within Botany Bay' (Clark 1992:24). He goes on further to say that '... such physical remains provide tangible links with the historic past and have the potential to be used as a focus for interpretative displays ...' (Clark 1992:26).

It was noted in the report the construction of the Parallel Runway and associated dredging may have had the effect of contributing to erosion along the northern foreshore where the remains of the Government Pier are situated (Clark 1992:27). Of the recommendations made in the report, those of relevance to this present study are:

1. That the potential for erosion damage occurring to the Long Jetty remains ... be monitored during the dredging of fill area F and that steps be taken to mitigate such damage that may occur.

2. That the potential for erosion damage (caused by reflected waves) occurring to the Long Jetty remains be monitored after the construction of the Parallel Runway and that steps be taken to mitigate such damage that may occur (Clark 1992:28).

It is not clear if this monitoring took place. The recommendation conflicts with other earlier recommendations (Thorpe 1990) that the pier remains should be recorded and then demolished and perhaps this situation led to some inaction. Clearly the data if available would be useful in understanding the effects of such dredging in the Bay on cultural items. However, it is expected that the current proposal i.e the Port Botany expansion reclamation will result in protection of the Pier remains from such erosion.

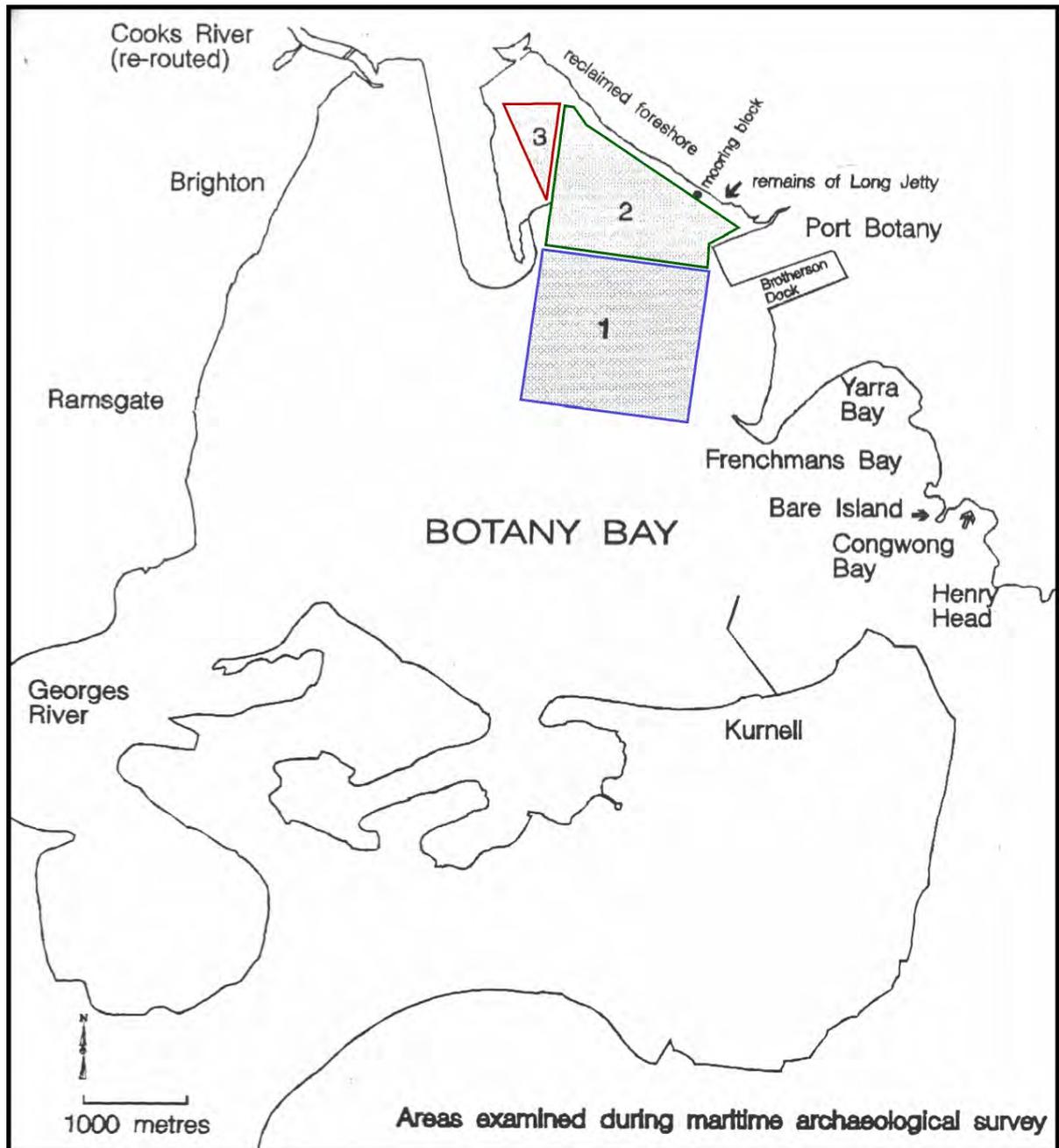


Figure 13 Extent of Clark's remote sensing survey, 1992 (Clark 1990:4)

9.2 Shipwrecks

The first European known to have sailed into Botany Bay was James Cook in 1770. Records reveal that as early as 1802 lime was shipped from Botany Bay to Port Jackson, from a wharf associated with a lime kiln near Cooks River. Botany Bay housed many other industries over the years: tanneries, wool scouring, market gardeners, fishing, paper mills, lime and brick works, oil refineries, and sand dredging were the most common of these. Most of the materials and produce associated with these industries would have been shipped into and out of the Bay. In 1880 the Government Pier was built, and this was a major point for transferring materials from ship to shore and vice versa. With the large volume of shipping activity in the area, shipwrecks were bound to have occurred. The Bay though is quite sheltered, offering ships protection from rough wind and waves, so it is likely that most shipwrecks at Botany Bay occurred before and during passage through the heads.

The New South Wales Heritage Office has a database of all known shipwrecks in New South Wales. The table below lists the fourteen vessels known to have been lost within Botany Bay (around the heads) (Figure 14).

Table 3: List of vessels wrecked within Botany Bay

Vessel name	Year Wrecked	Type	Where Lost
<i>Sir William Broughton</i>	1820	Sloop	South Head
<i>Flying Fox</i>	1847	Cutter	South Head, reef
<i>Fanny</i>	1870	Schooner	North Head
<i>Peri</i>	1874	Schooner	Henry Head
<i>Pioneer</i>	1875	Steamer screw	South Head, ashore
<i>Prompt</i>	1881	Schooner	Ashore near Govt. wharf
<i>Sea Breeze</i>	1883	Ketch	North Head
<i>Advance</i>	1884/02/11	Schooner	Inside Nth Head, Henry Head Bight
<i>Advance</i>	1897/07/26	Schooner	Lady Robinson's Beach
<i>Advance</i>	1902/06/12	Schooner	Henrys Head
<i>Minnie Wamsley</i>	1903	Steamer screw	Botany Bay
<i>Olive</i>	1930	Yawl	Frenchman's Beach
<i>Eileen</i>	1934	?	Kurnell
<i>Minmi</i>	1937	Steamer screw	Cape Banks

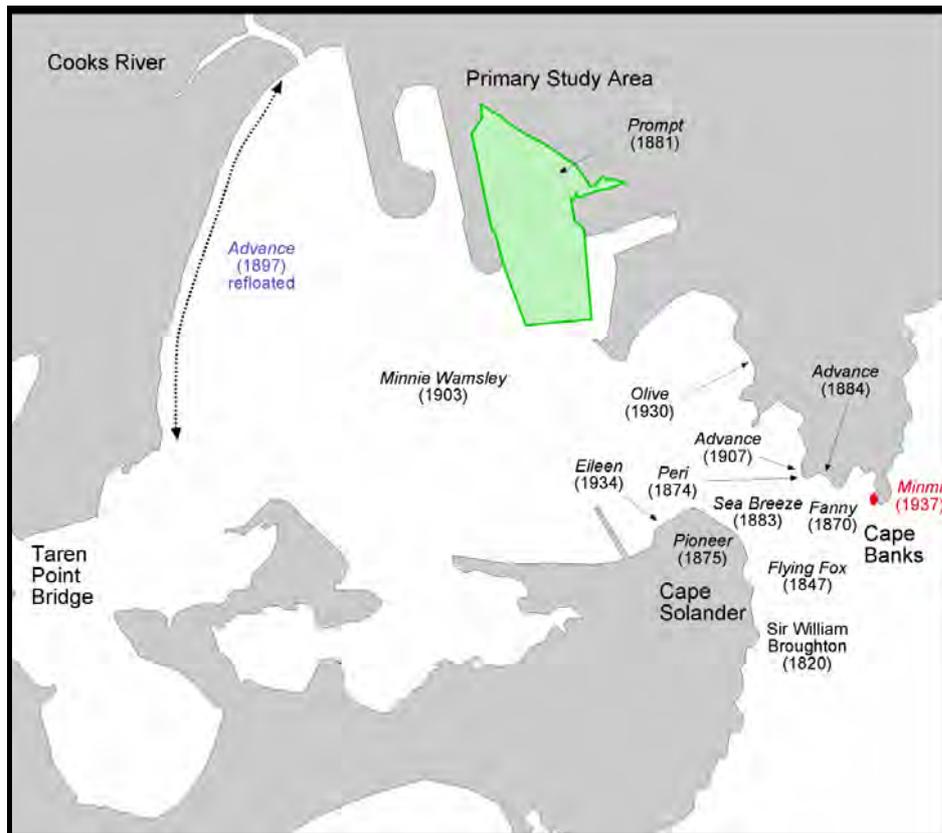


Figure 14 Shipwrecks in Botany Bay

9.2.1 Known shipwrecks

Of the 14 vessels listed by the NSW Heritage Office as having been lost in the Botany Bay area, there are no known remains of the wrecks within the study area. The location of the *Minmi* (1937) is known; its remains are visible above water at Cape Banks.

9.2.2 Potential shipwrecks

Table 3 reveals that, of the fourteen vessels lost in the Botany Bay area, the schooner *Prompt* was the only vessel wrecked in the vicinity of the Port Botany study area. The *Prompt* was wrecked on January 30, 1881 (Australasian Shipping News 5/2/1881). It was discharging cargo at the Government Pier during a gale. Though well equipped with two anchors "...and kedje to windward" the vessel collided with the wharf where it immediately filled and sank (SMH 1/2/1881).

It is difficult to ascertain what happened to the *Prompt* after she sank. The report in the *Sydney Morning Herald* stated that during low tide its decks emerged from the water and that Messrs. Fraser and Co were to offer the wreck for sale (SMH 1/2/1881). Whether it was sold or not is unknown, but it seems likely that as the Government Pier was less than a year old and, a well used wharf, a shipwreck within its immediate vicinity would have posed a serious obstacle. It seems likely that the ship was removed, though no record to confirm this has been found. Only one vessel named *Prompt* was listed in the Register of British Ships, Official Number 31633 (RBS Sydney:18/1863). The 56 ton vessel built in 1861 in Bridport, Tasmania, was also a schooner. The register was closed in 1884 stating that the vessel was wrecked off Cooktown, Queensland on February 21, 1884. No mention is made of the vessel being wrecked beforehand in Botany Bay, nor does the name Messrs Fraser and Co. appear as owners of the vessel. However it is possible that the *Prompt* wrecked at the Government Pier may have been refloated and was finally lost in Queensland.

On the other hand if *Prompt* (ON 31633), is not the same as the vessel wrecked at the Government Wharf in 1881 then it has to be considered that there may be a potential shipwreck within the study area. As mentioned before, it would be very unlikely that a wreck may have been left adjacent to a functioning jetty. The two most likely possibilities as to the fate of such a wreck would be that it was

dragged ashore and broken up or was refloated and scuttled in deeper water. Of these two possibilities the former is more likely. However any evidence of material not recycled would have been destroyed when the foreshore was reclaimed.

Many of the vessels listed in the table recorded as wrecked in Botany Bay, were actually wrecked near the heads and not actually within the Bay. The exceptions are the *Olive*, *Advance* (1897) and the *Minnie Wamsley*.

The fishing yawl *Olive* ran ashore in Botany Bay near La Perouse during a storm (SMH 2/6/30). Three fishermen on board the yawl were forced to abandon her and swim to safety. The *Olive* had been moored at Frenchmans Bay. The *Olive* was later swept up onto Frenchmans Beach. It is unlikely that wreckage from the vessel would be located within the primary study area.

The *Advance* was wrecked on Lady Robinsons Beach, whereby it was washed ashore during a storm in July 1897. The *Advance* was topsail schooner constructed in New Zealand. Damage done to the vessel was not very severe and a channel was dug, so that the vessel could be relaunched. This was done and the vessel was subsequently repaired (SMH 28/7/1897, 17/8/1897 and RBS Sydney:104/1883). Hence, *Advance* was removed and no longer needs to be considered as a potential shipwreck.

The *Minnie Wamsley* was a seventeen ton, timber hulled, single decked, screw steamer. The only information available at present for the location of the *Minnie Wamsley* is that it was wrecked in Botany Bay during a storm in 1903. It could conceivably be within the study area.

The remote sensing survey carried out in 1992, which encompassed the study area did not identify the remains of any shipwreck material (Clark 1992). This result does not assume that such sites may not be present in the study area as they may be buried too deep to be detected or scrambled to such a degree that they cannot be identified using conventional remote sensing techniques. It is also worth noting that dredging relating to the Parallel Runway that affected the current study area did not encounter any evidence of these wrecks.

9.3 Maritime-Related Structures

9.3.1 Known maritime related structures

An examination of Cook's 1770 chart of Botany Bay and an 1827 chart of Botany Bay, corrected to 1829, indicates that up to this point in time there were no European structures within the study area. (Figures 15 and 16).

Clark (1992:10) documents that from 1840 to 1890, Dent's boatyard, jetty and slipway were located 100 metres west of the Government Pier, presumably near Dent Street. There may be a discrepancy in this figure as mapping indicates that the jetty is approximately 30 m to the west of the Government Pier (refer to Figure 20). Apparently small craft such as the *Louis Dent* and the *Triton* were built at this boatyard (Clark 1992:10). Any remains of Dents boatshed, slipway and jetty (which was ca.180-200 m long) would now be buried beneath the foreshore reclamation work (see Figure 18).

By 1850 it appears from advertisements for the establishment that the Sir Joseph Banks Jetty and baths had been constructed. There remains, however, some doubt about the size and location of the jetty. Survey plans of the area from 1851-1855 record a pier in front (south) of the Sir Joseph Banks Pavilion. (Figure 17). No details of construction material of the jetty and baths have been uncovered. It is most likely that the baths were constructed of wood, in the manner of an enclosure composed of piling. It is clear from the plan that this jetty is much shorter than the length claimed in the advertisement, which seems to have embellished the attractions on offer.

By 1863 the jetty as depicted in the earlier map does not seem to exist. For example, a map of Banks Meadow dated 1863 (M2 811.1864/1863/1 Anon Plan of the village of Banks Meadow Parish of Botany County of Cumberland) does not show the jetty. By March 29, 1888 H.E.C Robinson produced a map which improved on the detail in many others by the addition of many features including new streets, properties and government infrastructures. The Government Pier is clearly marked on this map.

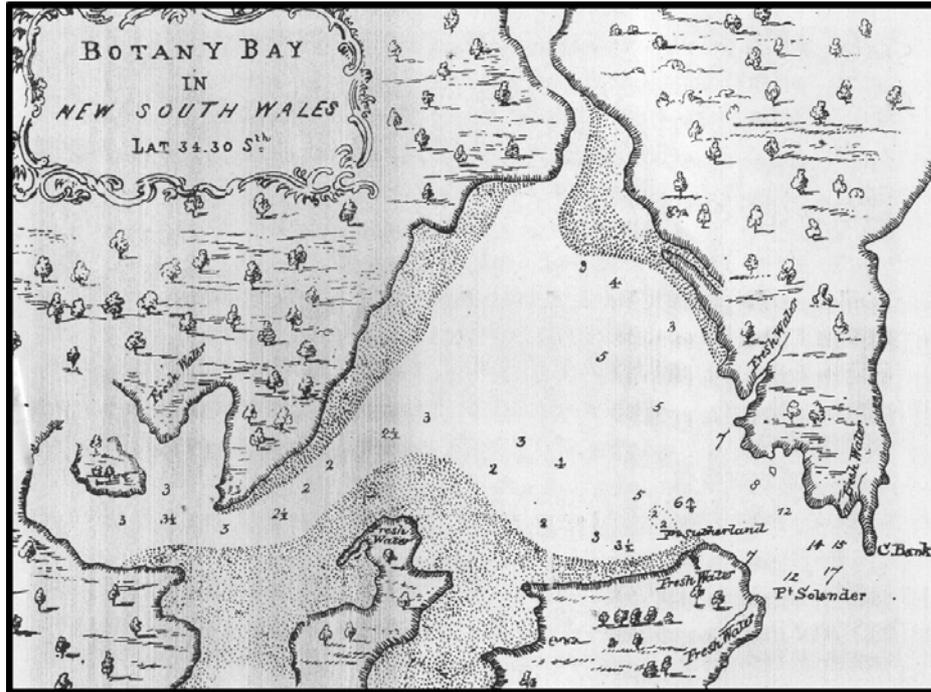


Figure 15 Botany Bay as surveyed by Cook in 1770 (SMH 28/4/1863)

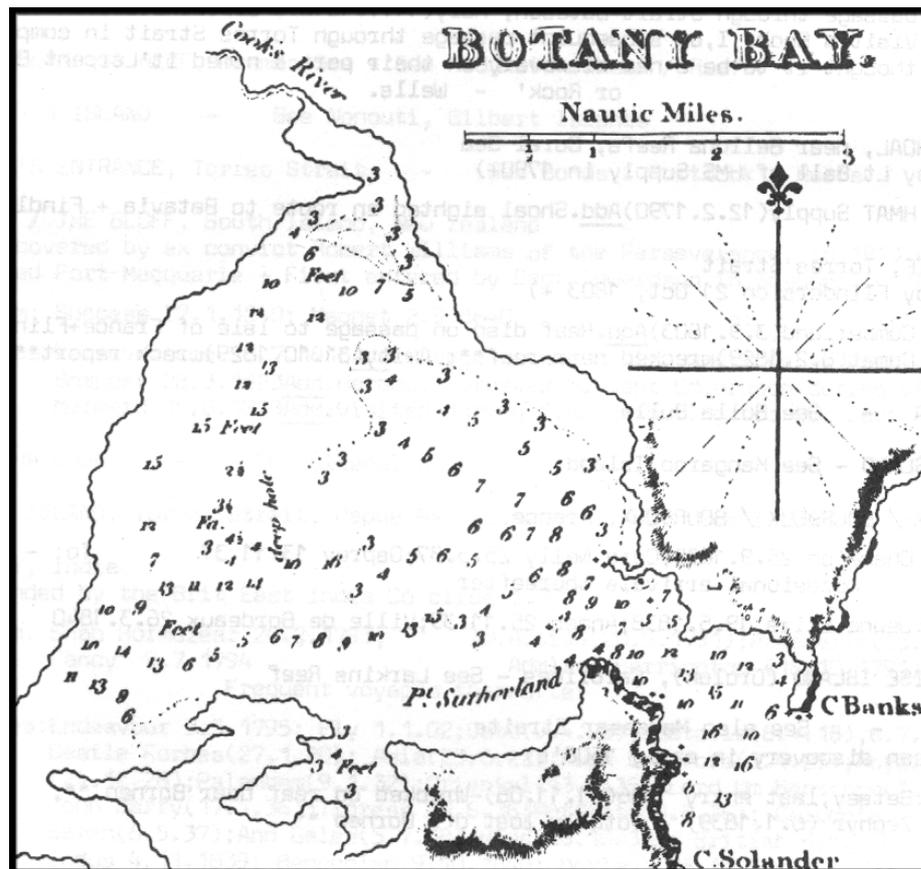


Figure 16 Chart of Botany Bay published in 1827 (Nicholson 1981:26)

A much later map (The Shell Touring Guide of Sydney Waterways 811.15.M2 (1963)/1) clearly identifies jetties, baths and training walls etc that protrude into the Bay. The Australian Paper Mills jetty (no longer extant) and the Government Wharf are clearly marked, but there is no indication of

any structures in the vicinity of the Sir Joseph Banks Hotel. However a maritime chart (G.811.1801/1 dated 1893) does indicate a linear structure west of the Government Pier although this feature, unlike the Government Pier, is not labelled.

It is possible that this structure is a stormwater or sewer outlet running along the ground surface. Plans held by Sydney Water indicate that there were several such outlets in this area and stormwater pipes can still be seen running on the surface into the bay (see for example maps for Botany Foreshore sewers WO44900 WAE 1943;SO44623 WAE 1941;western main outfall; WO 39100/1).

In 1895 another plan produced by Higginbotham and Robinson of Sydney shows a linear structure east of Fremlin Street in roughly the same location as the maritime chart of 1893 mentioned above. It is outside the boundaries of the Sir Joseph Banks Hotel and York Lodge properties. Again it appears possible that this is a stormwater pipe lying across the surface of the tidal zone, although it is also possible it is the jetty relating to Dent's Boatyard, as it is located directly opposite Dent Street.

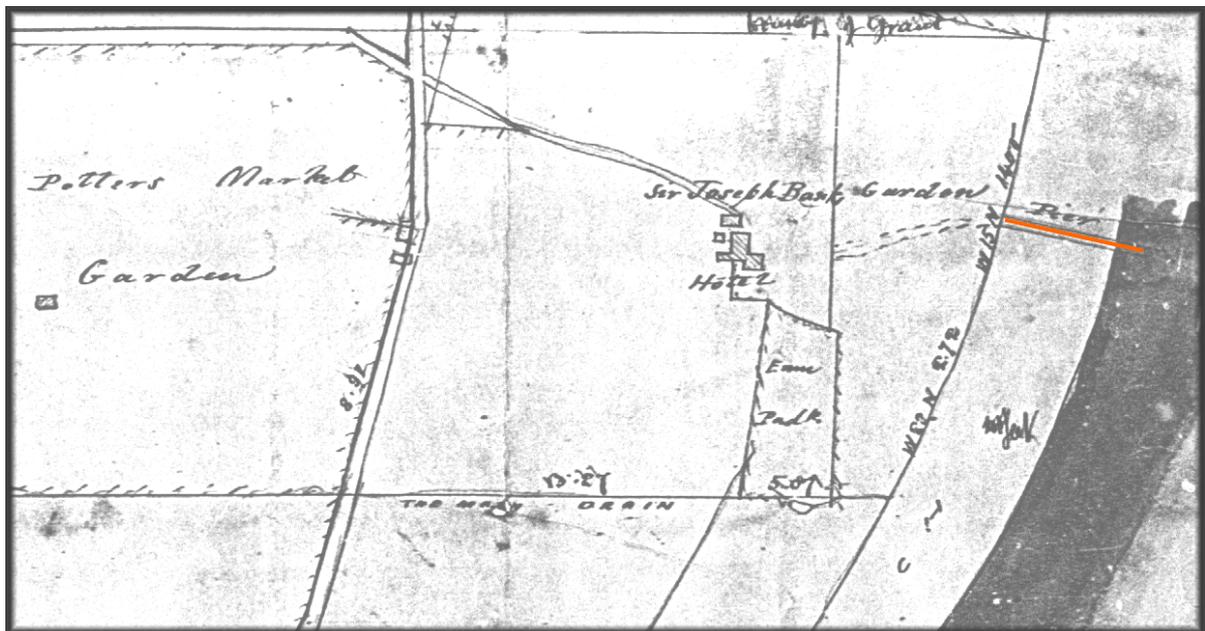


Figure 17 1850s plan showing Sir Joseph Banks Hotel Pier
(Botany, Dicks Plan. 1851 to 1855?)

The location of the former Sir Joseph Banks Jetty and baths is buried under the foreshore reclamation work (see Figure 18) .It is unlikely that evidence of these features would remain given that the structure does not appear to have existed since the early to mid 1860s. However such remains, if they existed would be of some significance as the jetty the earliest known maritime-related structure in Botany Bay. The baths themselves would be one of the earliest recreational structures of its type in Sydney, and perhaps Australia, and possibly the first physical expression of the Sydneysider's love of the beach.

In 1880 the Government Pier was built. It was constructed of wood and stone and appears to have had tram tracks along some of its length. Figure 19 shows the Government Pier in relation to the earlier Dent's Boatyard and the surrounding shoreline and topography. It should be noted that although the Admiralty Chart was first published in 1873, the chart shown in Figure 19 was the 1914 edition, with corrections up to 1937, and that the topographical information presented was obtained from an 1892 Government Plan. The abbreviation 'F.R.' at the end of the pier indicates that a fixed red light was in place as a navigational aid.

An 1895 plan of the area shows the relationship between what was probably Dent's Jetty and the Government Pier more clearly (Figure 20). Further details of the Pier can be seen in Figure 21. In this figure it appears that the head of the structure was shaped as a triangle. The head of the Pier may have been altered at a later date as the Sydney Water plan, annotated up to 1990, shows a box or 'T' head (Figure 22).

The Government Pier has been partially buried, as can be seen in Figure 22, which shows the original plan of the Pier against the outline of the reclaimed shoreline. The piles associated with the head of the Pier protrude out of the water (Figure 23). The tops of the piers appear to have been cut and burnt, consistent with Botany Council's attempts to deconstruct the wharf. A dolphin associated with the Government Pier is also visible (Figure 24). The significance of the Government Pier lies in its association with the Government's first attempt at fostering trade and creating port infrastructure within Botany Bay.

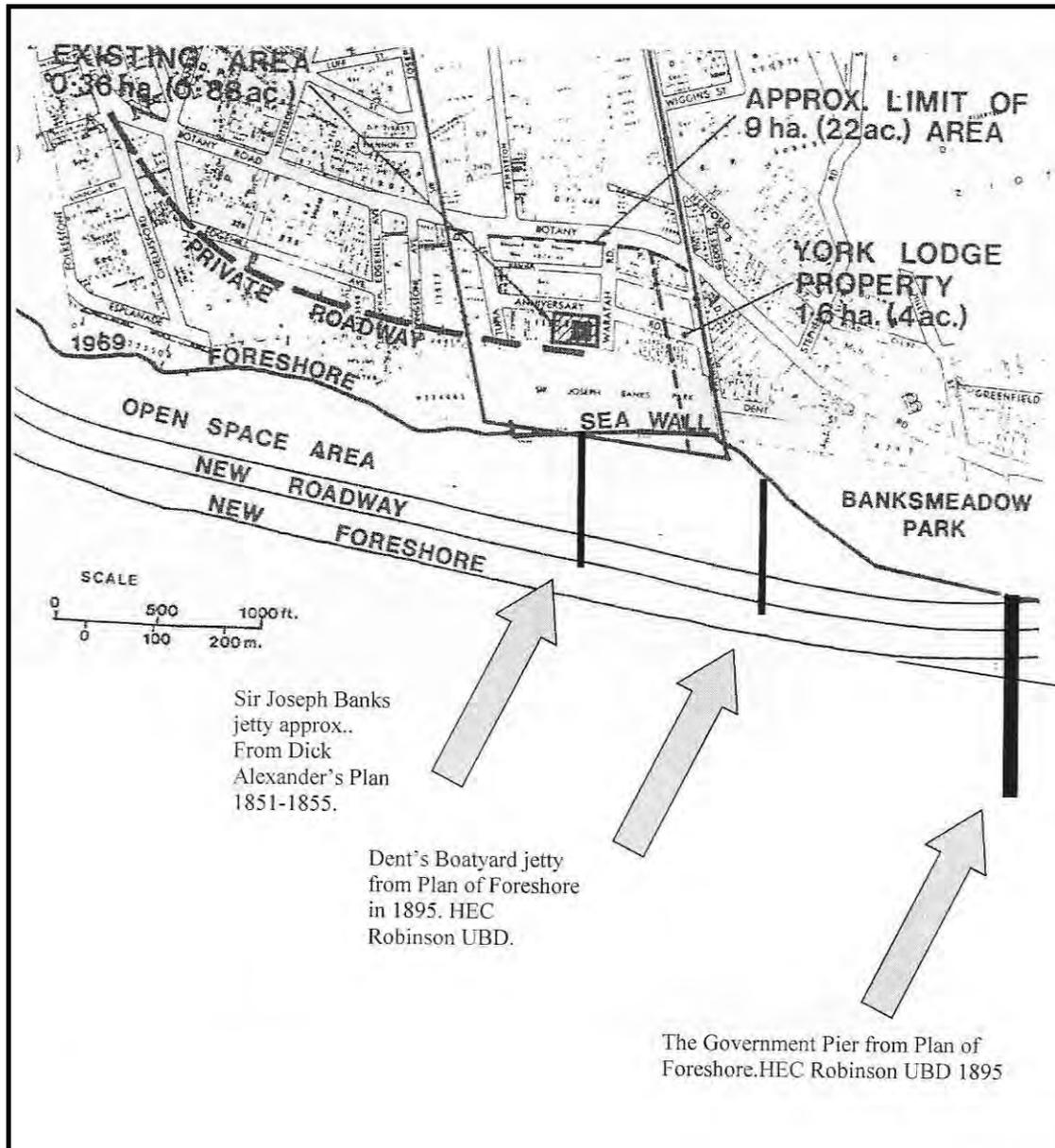


Figure 18 Plan showing the relative locations of the two smaller jetties and the Government Pier. Note that only the Government Pier appeared to be extant at the time the present foreshore reclamation was undertaken.

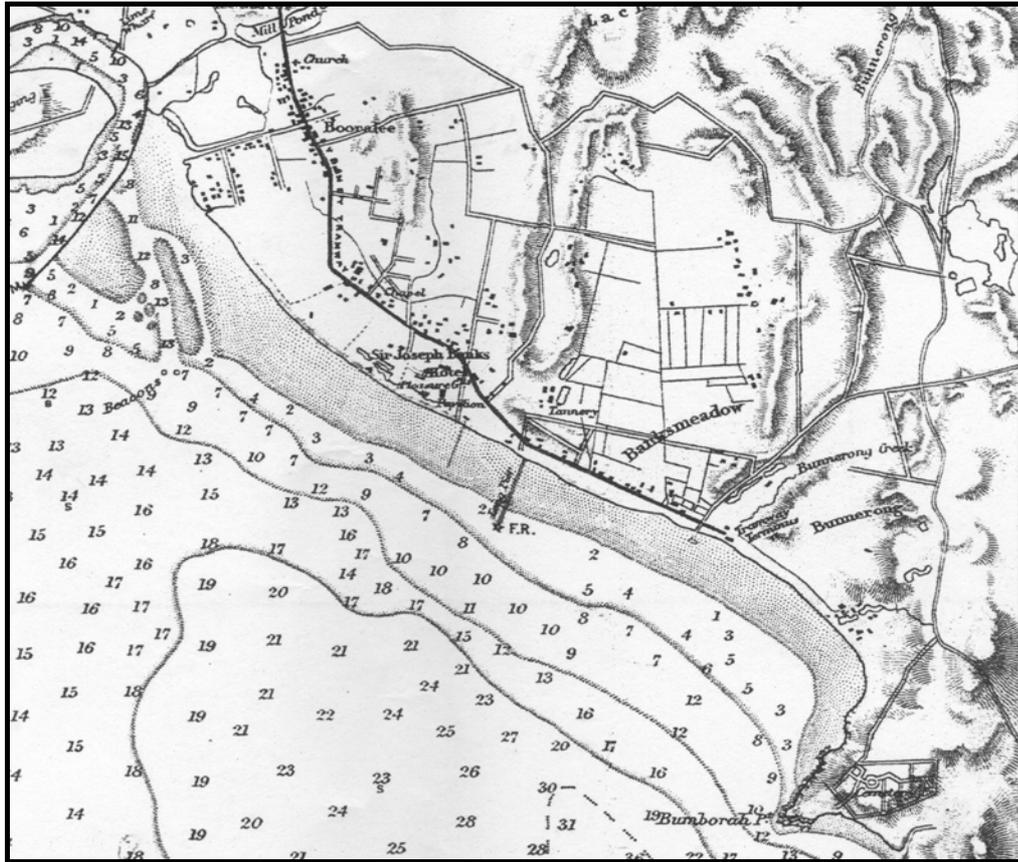


Figure 19 Portion of 1873 Admiralty Chart (Admiralty Chart no. 2179)

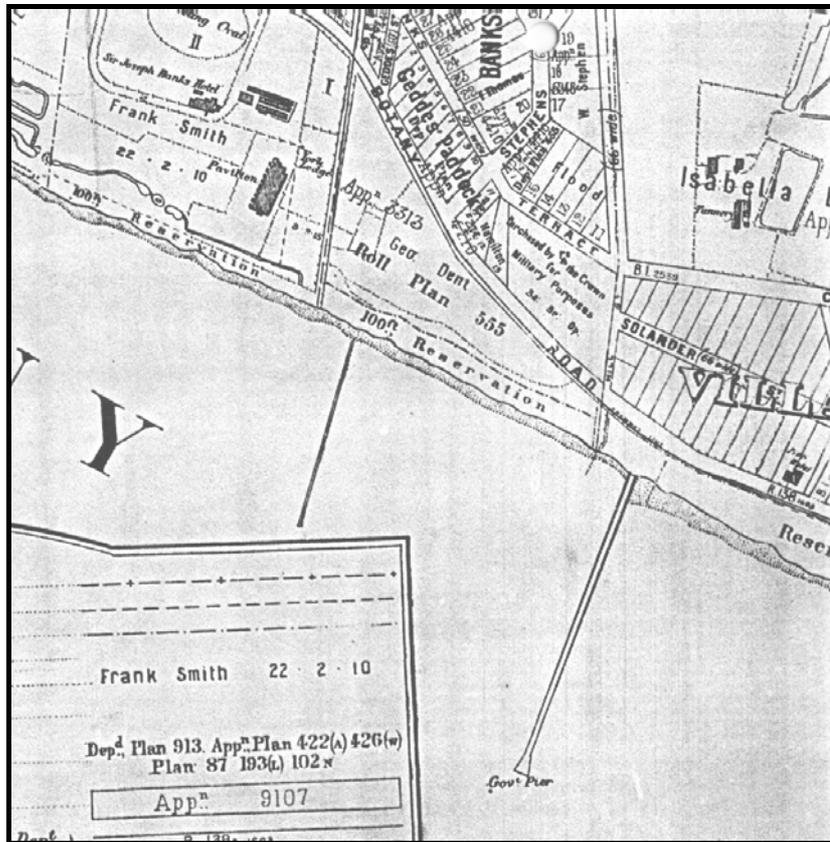


Figure 20 Plan of foreshore in 1895 (H.E.C. Robinson UBD 1895)

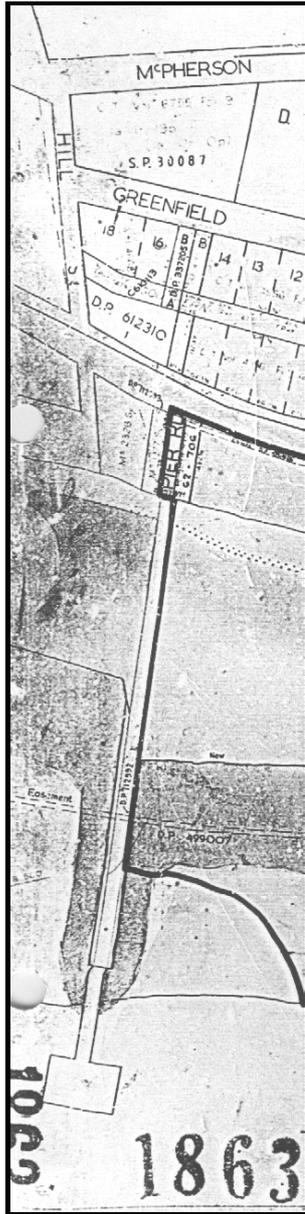


Figure 22 Detail of the Government Jetty annotated up to 1990? (MWS & D.B., R. E. Sheet no 1863)

In his 1992 remote sensing survey, Clark located a mooring - an engine block with chain attached, off the present day beach, to the west of the Government Pier (Clark 1992:3 and 24 and Figure 13). He does not give an accurate position for this object nor does it have any archaeological significance.

9.3.2 Potential maritime related structures

It is possible that before the Government Pier was built in 1880 that there were other small jetties in the study area built to aid the loading and unloading of goods and materials associated with the industries that had developed in the Botany Bay region. It is likely that boat sheds, ramps and slipways were also built within the study area and indeed boatsheds appear on some early plans along Botany Bay. Most such structures would have a limited life span, usually being constructed of timber. It can be assumed that the remnants of any such structures if they survived up until the period of reclamation are now buried beneath the foreshore reclamation work.

The remains of moorings are more likely to be within the study area, and not be buried by reclamation work. It is possible that the Sir Joseph Banks Jetty and Dent's Jetty had associated moorings, which may now be buried under land reclamations or through the sedimentation of the seabed.

9.4 Potential Offshore Cultural Deposits

The extensive grounds and range of activities offered at the Sir Joseph Banks Hotel attracted large crowds of holiday-makers. Advertisements suggest that the jetty may have played an important role in the interaction between the holiday-makers and access to the hotels grounds and activities. Some visitors are likely to have come to the hotel by boat although most it seems came originally by horse and cart and later by tram. Ferry trips to anywhere in the Bay were available to hotel patrons according to the advertisements. The hotel also hosted regattas. Such maritime activities involved people getting on and off boats at the hotels jetty.

Cultural deposits associated with these activities would be most intensive around the jetty where people playing and working were likely to occasionally drop their possessions or supplies into the water. When such material is dropped overboard it is rare that attempts are made to retrieve the material. The amount of human activity on the jetty may also have resulted in people throwing rubbish into the water. A bath house and possibly change rooms existed at the end of the jetty. Holiday-makers using these facilities probably removed their jewellery and clothing and the hotel provided swimwear. It is possible that at times material was accidentally knocked into the water while the owners of the material were bathing

The Sir Joseph Banks Hotel would have used their jetty for unloading stores, such as food, building materials for the hotels numerous extensions and additions. Animal food for the hotel's zoo was probably shipped at times. Everything that was shipped to the Sir Joseph Banks Hotel would have been unloaded at the Sir Joseph Banks Jetty. While such stores were being unloaded anything could have been dropped overboard.

The Government Pier was originally built to load and unload material associated with the sand, lime and brick works. Other industries located close by the pier would have likely utilised it to export their produce. By 1914 there were 40 tanneries and wool scourers existing in the Botany Municipality as

well as numerous market gardeners. It can be assumed that these industries would have used the pier to ship in and out raw materials and export produce.

From 1920 the Government Pier was used for unloading coal to the Bunnerong Power Station. In 1960 it was used for sand dredging. Any produce of materials associated with these industries could have fallen into the water particularly when being loaded or unloaded from ships to the pier.

The wharf Inspector in 1968 reported sand dredging equipment, shed remains and the coal bins being unused and left to rust on the end of the jetty. This material was removed in the following year. It is possible that some of the material was washed overboard during a storm, especially since part of the wharf was washed away.

The activities surrounding the boatyard, jetty and slipway near the Government Pier may also have resulted in material being deposited in the study area. The chances however of detecting and identifying such remains would be remote.



Figure 23 Photo of remnant piles of the Government Pier (June 2002)



Figure 24 Photo of dolphin associated with the Government Pier (June 2002)

In summary

Several wharf posts that relate to the Government Pier are still evident immediately off the current shoreline (Figure 25 and Appendix 3, Plate 2). Adjacent to the posts on the shore are the bulldozed remains of a brick structure (Zone 56 0334322mE 6240588mN \pm 4.6 m) possibly dating to the later phases of the wharf's life as a coal loading facility for Bunnerong Power Station (see Appendix 3, Plate 3). An isolated mooring post (Appendix 3, Plate 5) also probably relates to the Government Pier.

Field observations indicate that much of the fill (described in section 6.5 above) may not have been removed, contrary to the instructions of the Wharf Inspector. Brick and rubble fill can be seen in Appendix 3, Plate 3 although some of this could be the ballast that was placed at the outer section of the jetty in 1961 (see Wharf Inspectors memo 24/6/1970) to stabilise it. Given the location of this rubble ie towards the outer limits of the pier its identification as ballast is considered likely. The ballast extends into the water. Appendix 3, Plate 2 shows the white painted navigational marker warning of the location of the submerged 'ballast island' (see letter Acting Secretary MSB to F. Jenkins and Sons Pty Ltd dated 10/11/1970 re erection of the marker).

One other timber post (Zone 56 0334182mE 6240768mN \pm 6.1 m) (Appendix 3, Plates 6 and 7) and the remains of a single brick pier (Zone 56 0334170mE 6240778mN \pm 6.0 m) (Appendix 3, Plate 6) were noted further to the northwest of the Government Pier. The bricks in the single brick pier probably date to the 1940s or later. This is most likely to have been a plinth to support a storm water pipe similar to those still evident along the shoreline.

9.5 Inventory of Identified Features

Feature	Interpretation	Location/AMG Reference
timber piles	remains of Government Pier	334322mE 6240588mN (handheld GPS)
bulldozed brick structure	possibly associated with use of Government Pier as a coal loading facility for Bunnerong Power Station	334322mE 6240588mN (handheld GPS)
brick and rubble fill	probably ballast that was placed at the outer section of the Government Pier in 1961	in vicinity of Government Pier
timber post	unknown origin	Zone 56 0334182mE 6240768mN \pm 6.1 m) 200 m NW of the Government Pier
single brick pier	recent - probably dates to the 1940s or later	334182mE 6240768mN (handheld GPS)
metal pipes	recent, functional - stormwater	various
	Sir Joseph Banks Hotel and Pleasure Grounds	333700.6241150

10. IMPACT OF THE PROPOSED DEVELOPMENT ON THE CULTURAL RESOURCE

10.1 The Study Area

The proposed development will have no identifiable impact on Aboriginal archaeological heritage values in the study area.

Of the activities and/or construction works that make up the proposed development, as depicted in Figure 1, the following may directly impact on the submerged cultural heritage resource.

1. Reclaiming land for the container terminal
2. The creation of the Penrhyn Estuary and Nature Reserve
3. The creation of an open tidal channel.

In addition to this will be the dredging that will need to take place between the newly reclaimed area and the Parallel Runway, as well as to parts of the existing turning basin.

1. Reclaiming land for the container terminal

This activity would have the effect of permanently burying any cultural material in the area. However the likelihood of cultural material existing in the area is considered to be extremely low. This is because:

- the current study area has been subject to a remote sensing survey for maritime archaeological features (Clark 1992 and Figure 13) which did not locate any features, and
- much of the area has been dredged during the construction of the Parallel Runway. Therefore no remains of any wreck are likely to be found in the area.
- Aboriginal sites up to around 6,000-10,000 years ago would be located well to the north of the current reclaimed shoreline and material older than this which may relate to a more southerly shoreline are likely to have been disturbed by past dredging and other activities.

It can be concluded that this activity will have no impact on the cultural heritage resource.

2. The creation of the Penrhyn Estuary and Nature Reserve

Plans to create or modify the reclaimed land in the northeastern corner of the study area are being developed by Sydney Ports Corporation in such a way that the remains of the Government Pier can be preserved as a remnant of the Government's first attempts to create a port infrastructure in Botany Bay.

3. The creation of an open tidal channel

The creation of this channel, which appears will require the construction of seawalls and some dredging, may have an impact on the estimated ends of the former locations of the Dent's Boatyard jetty, Sir Joseph Banks Hotel jetty and baths and associated cultural deposits should they exist. Figure 27, an overlay of the 1873 Admiralty Chart no. 2179 and Figure 21 onto the present day aerial photograph, shows the end of the jetties potentially intersecting with the proposed open tidal channel.

Finally, the anticipated dredging as part of the development proposal will have the effect of obliterating any cultural remains on the seabed where the dredging will take place. As noted in (1) above, the only potential cultural remains are the wrecks, *Prompt* and *Minnie Wamsley*. It is considered that the likelihood of such wrecks being impacted by the dredging is remote.

10.2 Botany Bay

Studies have been undertaken to determine what, if any, hydrological effects the proposed development will have on the Botany Bay environment. These studies found the following changes around the Bay:

- Silver Beach, Kurnell

At present there is a westward transport of sand on the beach and the beach is groyned as a result. With port development, there would be a small change in wave conditions on the beach but the change would be restricted by the existing groyne fields which would accommodate this. There would be no identifiable impact

- Towra Beach

There will be a minor reduction in shoreline recession rate. This change would be imperceptible.

Generally speaking the only foreseen potential impact of the proposed development outside the primary study area is the minimal accumulation and loss of sand in discrete areas within Botany Bay. Such an occurrence, or occurrences, may have the following influence on the submerged cultural resource:

- *Net loss of sediment over a site:* the loss of sediment over a site would expose it to mechanical damage through wave action and current-borne objects. Metal objects will corrode; organic components of a site will be exposed to biological attack; structures may become undermined and therefore collapse; and small artefacts can be recovered by passers-by. All these actions would result in the destabilisation and dis-articulation of a site, hence resulting in the loss of archaeological information and the diminishment of the site's significance.
- *Net accumulation of sediment over a site:* An increase of sand cover will have the opposite effect with regards to a site's condition, in that it will aid in the preservation of the site.

However, taking account of the low level hydrological changes anticipated within Botany Bay as a result of the Port Botany Expansion development, the potential impact to the submerged cultural heritage resource is anticipated to be minimal.



Figure 25 Former coastline and approximate jetty locations layed over current coastline.

11. LEGISLATIVE REQUIREMENTS

Legislation that pertains generally to heritage conservation in NSW is provided in Appendix 2.

Given the context of the present study area, and the identified and potential cultural heritage resource of the area, the legislation that is applicable to the submerged cultural resource within the study area is the:

State Heritage Act 1977

Administered by the NSW Heritage Office, it applies to lakes, rivers, harbours and enclosed bays. Under the Act, 'relics' are automatically protected if they are over 50 years old. The Act defines a 'relic' as:

any deposit, object or material evidence relating to the settlement of the area that comprises New South Wales, not being aboriginal settlement and which is 50 or more years old.

Section 139 (1) of the Act states that:

A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.

The Act requires that an application for an excavation permit should be lodged with the NSW Heritage Office, prior to any works with the potential to disturb 'relics' defined under the Act.

At the time of writing, any cultural feature deposited or constructed in 1952 or earlier is considered a 'relic' under the Act and requires a permit to disturb. Therefore, the *Prompt*, the *Minnie Wamsley*, the Sir Joseph Banks Jetty and Government Pier as well as associated cultural deposits are considered 'relics' under the aforementioned Act.

12. PROPOSED MITIGATION MEASURES

In order to mitigate the effects of the impact of the development on the submerged/buried cultural resource the following measures are proposed.

The remains of the Sir Joseph Banks Hotel Jetty, Baths and associated cultural deposits

Recommendation 1

The general location of the Sir Joseph Banks Hotel jetty and bath remains must be regarded as a potential archaeological site. Should any subsurface excavations be planned in this area, a program of archaeological monitoring should be implemented when the works are undertaken at the general location of the jetty. However the chance of archaeological remains in this location is low.

The remains of the Government Pier and associated cultural deposits

Recommendation 2

Because of the significance of the Government Pier and its relevance to the current port development it is recommended that, as a preferred option,

The remains of the Government Pier, above and below water, and associated cultural deposits, should be conserved.

Alternately, as a less satisfactory option is that

The remains of the Government Pier, above and below water, and associated cultural deposits, be documented prior to burial.

It should be noted here that Sydney Ports Corporation has confirmed that the Government Pier will be conserved as part of the early history of government regulation and development of the Port Botany infrastructure.

Recommendation 3

The possibility for future on-site interpretation of the Government Pier remains should be considered.

Recommendation 4

The general location of Dent's Boatyard jetty must be regarded as a potential archaeological site. Should any subsurface excavations be planned in this area, a program of archaeological monitoring should be implemented when the works are undertaken at the general location of the jetty. However the chance of archaeological remains in this location is low.

General Recommendations

It is accepted practice to provide copies of heritage reports to the relevant government authorities ie National Parks and Wildlife Service and the Heritage Office NSW, for their information and consideration. The relevant Aboriginal community, which in this case is the La Perouse Aboriginal Land Council, also requires a copy of the report.

Recommendation 5

Three copies of this report should be sent to:

Archaeologist
Aboriginal Heritage Unit
Cultural Heritage Division
NSW NPWS
PO Box 1967
HURSTVILLE NSW 2220

A copy of this report should be sent to:

Archaeologist
Heritage Office of NSW
Locked Bag 5020
PARRAMATTA NSW 2124

A copy of this report should be sent to:

Mr David Ingray
Site Officer
La Perouse Local Aboriginal Land Council
PO Box 365
LA PEROUSE NSW 2036

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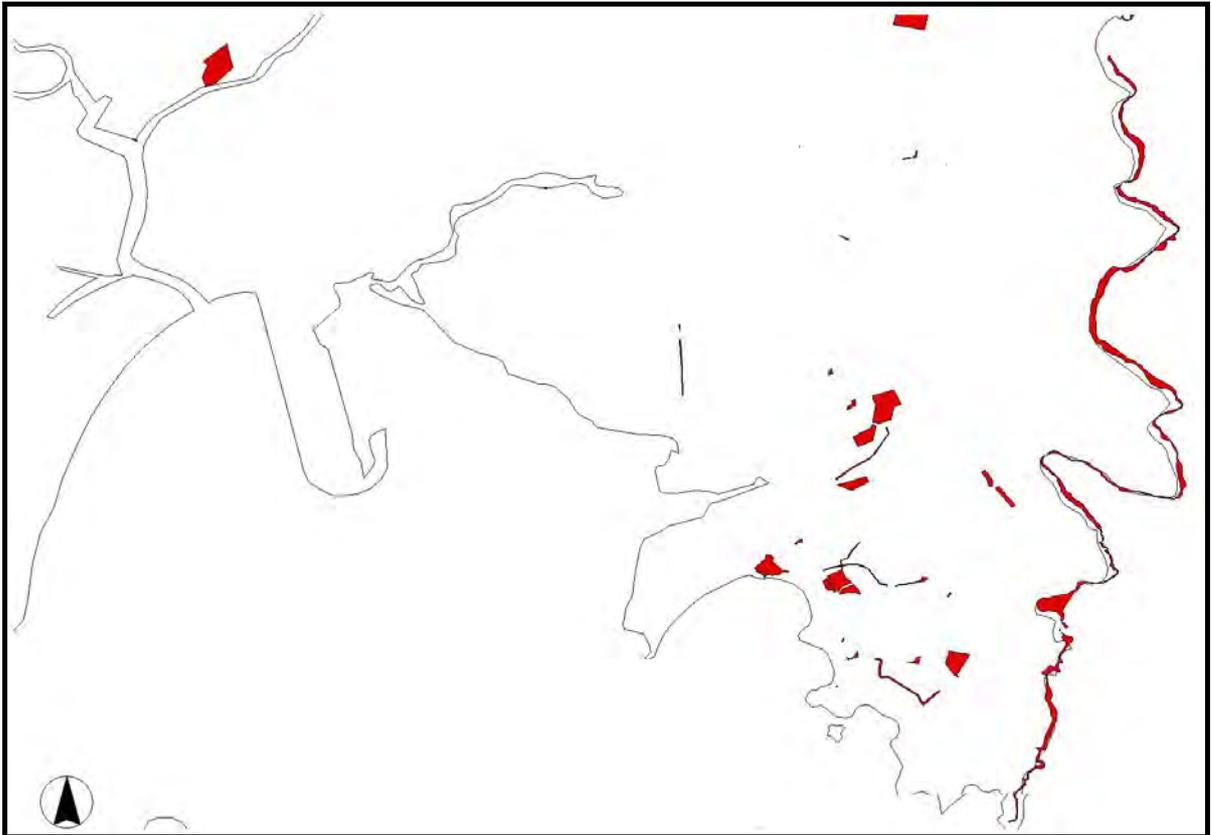
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APPENDIX 1

**CLOSEST PARCELS OF LAND IN
NATIVE TITLE CLAIM NC 97/8**



APPENDIX 2
STATUTORY INFORMATION

There is a range of statutory and non-statutory measures at both the State and Commonwealth level, which can be invoked, to protect cultural and natural heritage features and places. Potentially relevant legislation is outlined below.

A1. New South Wales Legislation

A.1.1 The NSW Heritage Act (1977)

The purpose of the NSW Heritage Act 1977 is to ensure that the heritage of New South Wales is adequately identified and conserved. In practice the NSW Heritage Act has focussed on items and places of non-indigenous heritage to avoid overlap with the NPWS Act, 1974 which has primary responsibilities for nature conservation and the protection of Aboriginal relics and places in NSW. In recent years however the Heritage Council has targeted these other areas, working with relevant state agencies such as NPWS to identify gaps in the protection of Aboriginal and natural heritage places (for example the Cyprus Hellene Club was protected under the Heritage Act as a place of historic significance to Aboriginal people amongst other values).

The *Heritage Amendment Act 1998* came into effect in April 1999. This Act instigated changes to the NSW heritage system, which were the result of a substantial review begun in 1992. A central feature of the amendments was the clarification and strengthening of shared responsibility for heritage management between local government authorities, responsible for items of local significance, and the NSW Heritage Council. The Council retained its consent powers for alterations to heritage items of state significance.

The Heritage Act is concerned with all aspects of conservation ranging from the most basic protection against damage and demolition, to restoration and enhancement. It recognises two levels of heritage significance, State significance and Local significance across a broad range of values (see 5.1). Some key provisions of the Act are the establishment and functions of the Heritage Council (Part 2), interim heritage orders (Part 3), the State Heritage Register (Part 3A), Heritage Agreements (Part 3B), environmental planning instruments (Part 5), The protection of archaeological deposits and relics (Part 6) and the establishment of Heritage and Conservation Registers for state government owned and managed items (Part 7).

Generally protection under this Act is given to items that have been identified, assessed and listed on various registers including State Government s170 registers, local government LEPs and the State Heritage Register. There is however provision for the minister or his delegates (local government may have delegated authority) to provide emergency protection to places not previously identified if threatened through the Interim Heritage Order provisions. The only 'blanket' protection provisions in the Act relate to the protection of archaeological deposits and relics greater than 50 years old.

The Heritage Council of NSW

The role of the Heritage Council is to provide the Minister with advice on a broad range of matters relating to the conservation of the heritage of NSW. It also has a role in promoting heritage conservation through research, seminars and publications. The membership of the heritage Council is designed to reflect a broad range of interests and areas of expertise

Interim Heritage Orders

Under the provisions of Part 3 of the Act, the Minister can make an interim heritage order (IHO). A recommendation with respect to an order can come from the Heritage Council, either based on a request for the Minister or the Council's own considerations. The Minister can also authorise Local Councils to make IHOs within their area. An interim conservation order may remain in force for up to 12 months, until such time as it is revoked or the item is listed on the State Heritage Register. A heritage order may control activities such as demolition of structures, damage to relics, places or land, development and alteration of buildings, works or relics.

The State Heritage Register

Changes to the Heritage Act in the 1998 amendments established the State Heritage Register which includes all places previously protected by permanent conservation orders and items identified as being of state significance in heritage and conservation registers prepared by State Government instrumentalities. Sites or places which are found to have a state level of heritage significance should be formally identified to the Heritage Council and considered for inclusion on the State Heritage Register.

Heritage Agreements

Under Section 39 of the Act, the Minister can enter into an Agreement with the owner of a heritage item listed on the State Heritage Register to ensure its conservation. Such an Agreement can cover a range of responsibilities including financial or specialist assistance and can be attached to the title of the land.

Environmental Planning Instruments

Part 5 of the Act gives the Heritage Council the authority to request that an environmental planning instrument be prepared covering certain lands and also directs that they shall be consulted by others preparing a draft planning instrument affecting land to which an interim heritage order applies or which includes an item listed on the State Heritage Register. In addition it gives the Heritage Council the authority to produce guidelines for the preparation of such planning instruments.

Protection of archaeological relics and deposits

Section 139 of the Act specifically provides protection for any item classed as a relic. A relic is defined as "...any deposit object or material evidence -

- (a) which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and
- (b) which is 50 or more years old." (Heritage Act 1977, Part 1, Section 4)

Section 139 of the Act disallows disturbance of a relic unless in accordance with an 'excavation permit' from the Heritage Council. In practise, excavation permits are required only for relics that according to their assessed heritage significance warrant this form of documentation and control.

Section 146 of the Act requires that the discovery of a previously unknown relic be reported to the Heritage Council within a reasonable time of its discovery.

Heritage and Conservation Registers

Section 170 of the Act requires all state government instrumentalities to establish and maintain a Heritage and Conservation Register, which lists items of environmental heritage. The register is to include items which are, or could potentially be, the subject of a conservation instrument, and which are owned, occupied or otherwise under the control of that instrumentality.

The Heritage Act and shipwrecks

In general, the Heritage Act is only used as a means of protecting shipwrecks within inland and state waters. Although, if tested the Act probably also protects maritime relics within 3 miles of the coast. In NSW, the Commonwealth Historic Shipwrecks Act 1976 is generally applied as the principal means of protecting shipwreck sites and associated artefacts. However, maritime relics such as wharves, jetties or aeroplane wrecks are considered to be included in the general application of the Heritage Act (advice from Heritage Branch, NSW Dept of Planning).

A.1.2 Environment Planning & Assessment Act (1979)

The EP&A Act and its regulations, schedules and associated guidelines require that environmental impacts are considered in land use planning and decision making. Environmental impacts include cultural heritage assessment.

There are three main areas of protection under the Act:

- Planning instruments allow particular uses for land and specify constraints. Part III governs the preparation of planning instruments. Both Aboriginal and Historic (Non-Indigenous) cultural heritage values should be assessed when determining land use.
- Section 90 lists impacts which must be considered before development approval is granted. Part IV relates to the development assessment process for local government authorities. Impact to both Aboriginal and Historic (Non-Indigenous) cultural heritage values are included.
- State Government agencies which act as the determining authority on the environmental impacts of proposed activities must consider a variety of community and cultural factors in their decisions, including Aboriginal and Historic (Non-Indigenous) cultural heritage values. Part V relates to activities which do not require consent but still require an environmental evaluation, such as proposals by government authorities.

Under the *Environment Planning & Assessment Act (1979)* the Minister for Planning may make various planning instruments such as regional environmental plans (section 51) and local environment plans (section 70). The Minister may direct a public authority such as a Local Council, to exercise certain actions within a specified time, including the preparation of draft Local Environmental Plans and appropriate provisions to achieve the principles and aims of the Act (section 117).

These planning instruments may identify places and features of cultural heritage significance and define various statutory requirements regarding the potential development, modification and conservation of these items. In general, places of identified significance, or places requiring further assessment, are listed in various heritage schedules that may form part of a Local Environmental Plan (LEP) or a Regional Environmental Plan (REP). Listed heritage items are then protected from certain defined activities, normally including demolition, renovation, excavation, subdivision, and other forms of damage, unless consent has been gained from an identified consent authority. The consent authority under a LEP is normally the local Shire or City Council.

In addition to the development of these environmental planning instruments, the Director of PlanningNSW or a Council may prepare a Development Control Plan (DCP), where it is considered that more detailed provisions or guidelines are required over any part of land covered by an REP, LEP or their Drafts (sections 51A and 72).

In determining a development application (DA), a consent authority, such as a local Council, must take into consideration any of the following that are relevant to the subject application (section 79C(1) Potential Matters for Consideration):

- the provisions of any environmental planning instrument, or draft environmental planning instrument (which has been placed on public exhibition); any development control plan; and the regulations;
- the likely impacts of that development on the natural and built environments, and the social and economic impacts on the locality;
- the suitability of the site for the development;
- any submissions made in accordance with the Act or the regulations; and
- the public interest.

Best Practice Guidelines have been issued by DUAP on the use of section 79C(1) and include an assessment of how the proposed development will affect the heritage significance of the property, or adjacent properties, in terms of the historic, scientific, cultural, spiritual and archaeological of Aboriginal, non-Aboriginal and natural heritage.

If a development consent is required from council under the provisions of a LEP and a permit or license is also required from a State Government Agency an integrated development must be submitted to the consent authority. A development is an 'integrated development' if it requires an approval under section 90 of the *NSW National Parks & Wildlife Act, 1974* or if the Director General of NPWS is of the opinion that consultation with an Aboriginal group or organisation should be consulted prior to a determination being made. Any development approval issued for an integrated development of this kind must be consistent with the general terms of approval or requirements provided by the relevant State Government Agency.

The *Environmental Planning & Assessment Act, 1979*, as amended, provides for the listing of heritage items and conservation areas and for the protection of these items or areas through environmental planning instruments (like LEPs and REPs) at the local government and State planning levels. These statutory planning instruments usually contain provisions for the conservation of these items and areas as well as an assessment process to reduce the impacts of new development on the heritage significance of a place, building or conservation area.

A2. Commonwealth Legislation

While the primary heritage legislation offering protection to Aboriginal and non-indigenous sites is enacted by the individual states, several Acts administered by the Commonwealth are also relevant to protection of cultural heritage.

A.2.1 Australian Heritage Commission Act 1975

The *Australian Heritage Commission Act 1975* established the Australian Heritage Commission as the Commonwealth Government's adviser on the protection of Australia's National Estate. The National Estate 'consists of those places, being components of the natural environment of Australia or the cultural environment of Australia, that have aesthetic, historic, scientific or social significance or other special value for future generations as well as for the present community' (Section 4.1).

The Australian Heritage Commission maintains a Register of National Estate places and advises the Commonwealth Minister and Government on all matters concerning the National Estate. The Australian Heritage Commission's advisory role is primarily related to the actions of the Commonwealth Government and its departments and authorities.

Section 30 of the *Australian Heritage Commission Act* (last amended in 1990) places obligations on Commonwealth Ministers, departments and authorities to protect the National Estate. The Act states that such government bodies should ensure their actions do not adversely affect the national estate values of places in the Register, unless there are no feasible and prudent alternatives, in which case all reasonable measures should be taken to minimise the adverse affect. Hence, the Act does not place legal constraints or controls over the action of State or Local Governments, or private owners.

The section specifies that the Commission has the right to comment on, as well as to consider, proposed Commonwealth actions which might affect a place on the Register to a significant extent.

A.2.2 Environment Protection & Biodiversity Conservation Act 1999

This Act repeals the following pieces of Commonwealth legislation: the *Environment Protection (Impact of Proposals) Act 1974*, the *Endangered Species Protection Act 1992*, the *National Parks and Wildlife Conservation Act 1975*, the *World Heritage Properties Conservation Act 1983*, and the *Whale Protection Act 1980*. The scope and coverage of the Act is wide and far reaching. The objectives of the Act include: the protection of the environment, especially those aspects of national significance; to promote the conservation of biodiversity and ecologically sustainable development, and to recognise the role of indigenous people and their knowledge in realising these aims.

The Act makes it a criminal offence to undertake actions having a significant impact on any matter of national environmental significance (NES) without the approval of the Environment Minister. Actions which have, may have or are likely to have a relevant impact on a matter of NES may be taken only:

- in accordance with an assessment bilateral agreement (which may accredit a State approval process) or a declaration (which may accredit another Commonwealth approval process); and
- with the approval of the Environment Minister under Part 9 of the Act. An action that requires this Commonwealth approval is called a 'controlled action'
- Matters of national environmental significance (NES) are defined as:
 - World heritage values within declared World Heritage Properties (section 12(1));
 - Ramsar wetlands of international importance (section 16(1));
 - nationally threatened species and communities (section 18);
 - migratory species protected under international agreements (section 20);
 - nuclear actions;
 - the Commonwealth marine environment (generally outside 3 nautical miles from the coast) (section 23(1&2)); and
 - any additional matters specified by regulation (following consultation with the States) (section 25).

In addition, the Act makes it a criminal offence to take on Commonwealth land an action that has, will have, or is likely to have a significant impact on the environment (section 26(1)). A similar prohibition (without approval) operates in respect of actions taken outside of Commonwealth land, if it has, or is likely to have a significant impact on the environment on Commonwealth land (section 26(2)). Section 28, in general, requires that the Commonwealth (or its agencies) must gain approval (unless otherwise excluded from this provision), prior to conducting actions which has, will, or is likely to have a significant impact on the environment inside or outside the Australian jurisdiction.

The Act adopts a broad definition of the environment that is inclusive of cultural heritage values. In particular, the 'environment' is defined to include the social, economic and cultural aspects of ecosystems, natural and physical resources, and the qualities and characteristics of locations, places and areas (section 528).

The Act allows for several means by which a controlled action can be assessed, including an accredited assessment process, a public environment report, an environmental impact statement, and a public inquiry (Part 8).

World heritage values are defined to be inclusive of natural and cultural heritage (section 12(3)), and a declared World Heritage Property is one included on the World Heritage List, or is declared to be such by the Minister (sections 13 and 14). The Act defines various procedures, objectives and Commonwealth obligations relating to the nomination and management of World Heritage Properties (Part 15, division 1).

APPENDIX 3
PLATES



Plate 1: Looking southeast along study area proposed for reclamation towards the existing Port Botany facility. Note Stormwater pipeline extending from shore midfield.



Plate 2: Piers associated with the demolished Government Pier.



Plate 3: The remains of brick structure associated with the demolished Government Pier.



Plate 4: Substantial timbers have been used as a retaining wall at one of the entrance ways to the Sir Joseph Banks Park.



Plate 5: Isolated mooring – possibly related to the Government Pier



Plate 6: Isolated brick structure and isolated wooden post.



Plate 7: The isolated wooden post (from Plate 6)



Plate 8: The front entrance of the Sir Joseph Banks Hotel, Botany.



Plate 9: The south facing entrance of the Sir Joseph Banks Hotel which overlooks the park and which would once have been located on the fore dune of Botany Bay before successive land reclamation moved the shoreline to the south.



Plate 10: Side view of the Sir Joseph Banks Hotel showing the exterior of the ballroom.