Godden Mackay Logan **with Mary Dallas, Meredith Hutton and Musecape**

Waverton Peninsula Industrial Sites: BP, Caltex, Coal Loader

Conservation Management Plan

Prepared for North Sydney Council, May 2000

Contents Page

List of Illustrations Page

1.0 Introduction

1.1 Preamble

Waverton Peninsula is a special place within North Sydney and Sydney Harbour. The natural topography, remnant vegetation, Aboriginal heritage and phases of industrial development combine to create a rich layered cultural landscape.

The Waverton Peninsula industrial sites — the BP site, the Caltex site and the Coal Loader site — are prominent visual icons which attest to the historical importance of waterfront industry in North Sydney.

In a 'Statement on Sydney Harbour Foreshore' in August 1997, the NSW Premier, the Hon Bob Carr announced the dedication of the Waverton industrial sites for public open space and waterfront industrial use, in a manner that retained and conserved items of heritage significance.

1.2 Background

Godden Mackay Logan Pty Ltd has been engaged by North Sydney Council to prepare a Conservation Management Plan for the three industrial sites on the Waverton Peninsula. This Plan is intended to provide a definitive understanding of the natural and cultural heritage values of the sites, together with policies and strategies that provide for their ongoing heritage management.

The Conservation Management Plan is a key outcome of a Strategic Masterplan which has been prepared for the sites by North Sydney Council with the assistance of Clouston Landscape Architects. The Strategic Masterplan sets out preliminary strategies for the conservation, development and future management of the sites. The Masterplan, which was developed in close consultation with the local community, sets out a series of key guiding principles, including:

- increasing public access to, and use of, the foreshore;
- the retention, management and use of land made available for public access, or the use of other appropriate tenure mechanisms where public ownership is not possible;
- the retention and enhancement of public links between existing foreshore open space areas;
- the conservation of significant bushland and other natural features along the foreshore, where consistent with conservation principles, and their availability for public use and enjoyment;
- the protection of significant natural and cultural heritage values, including marine and ecological values; and
- the conservation of items of heritage significance.

Importantly, the Strategic Masterplan recognises that its specific strategies and indicative proposals require review and reconsideration in the light of the results of this Conservation Management Plan.

1.3 Study Area

The study area consists of three former industrial sites on the Waverton Peninsula:

- the former BP site;
- the former Caltex site; and
- the former Coal Loader site.

The location and context of these sites are illustrated in Figures 1.1 and 1.2.

Waverton Peninsula is on the north side of the Parramatta River between McMahons Point and Berry Island. It is located approximately 8km upstream of the mouth of Port Jackson, within the North Sydney Council area. The study area extends across both sides of the Peninsula at its narrowest point, where there is a saddle between the high points of Balls Head Reserve and the residential areas of Waverton to the north. All three sites within the study area have been substantially modified for industrial use.

1.4 Author Identification

The Conservation Management Plan has been prepared by Godden Mackay Logan Pty Ltd working in conjunction with:

- Mary Dallas Consulting Archaeologists;
- Musecape Pty Ltd;
- Meredith Hutton, Industrial Archaeologist; and
- Patterson, Britton and Partners Pty Ltd.

The study team is drawn from a diverse, multidisciplinary background and comprises:

- Richard Mackay, Project Team Leader and responsible Director;
- Don Godden, Industrial Archaeologist;
- Shalendra Ranasinghe, Project Manager;
- Chris Betteridge, Landscape and Natural Environment Advisor;
- Mary Dallas, Prehistorian;
- Allan Madden, Aboriginal Sites Officer;
- Andrew Roberts, Aboriginal Sites Officer;
- Meredith Hutton, Industrial Archaeologist;
- Tony Brassil, Industrial Archaeologist;

- Mark Dunn, Historian;
- Margaret Betteridge, Interpretation Advisor; and
- Peter Coltman, Consulting Engineer.

1.5 Methodology

This complex project has involved a standard conservation planning approach, augmented by additional specialist input and a high level of consultation with stakeholders. The study process is summarised in Figure 1.3.

In broad terms, the project has involved review of existing documentation, additional primary research and on-site inspection and documentation, so as to allow for an understanding of the nature and extent of the natural and cultural resources present. The significance of each site and their individual components has been assessed, in accordance with the *NSW Heritage Manual* criteria and methodology for significance assessment.

A thorough process of document review and stakeholder consultation has resulted in identification of relevant constraints, issues and opportunities which are considered and resolved in succinct conservation policies. The report then reviews the Masterplan and its proposals, so that effective implementation strategies can be identified.

The report complies with the conservation planning process and principles of the *Burra Charter* (*The Australia ICOMOS Charter for Places of Cultural Significance)* and the relevant guidelines of the *NSW Heritage Manual*, published by the NSW Heritage Office and Department of Urban Affairs and Planning.

Terminology used throughout the report is consistent with the definitions of the *Burra Charter*, which, for convenience, is reproduced as Appendix A.

1.6 Limitations

This report is comprehensive, with respect to assessment of the heritage values of the study area and deriving well-resolved conservation policies.

The primary historical research undertaken was, as is always the case, confined by available time and resources and it is possible that new information which modifies our understanding of the study area may come to light in future.

In accordance with the project brief and contract, consultation with the general community was undertaken in two public meetings, although additional input was invited and welcome. There was also extensive consultation with key stakeholders and the public during preparation of the strategic Master Plan. However, it is possible that there are additional community viewpoints which have not been expressed to the study team and are therefore not reflected in this report.

In relation to understanding of the physical condition of the study area and its components, reliance was placed on available previous structural reports. An additional condition report, based on external visual inspection only, was specifically commissioned for the timber wharves on the BP site and the former Coal Loader Wharf.

1.7 Acknowledgements

This project has been supervised by a Steering Committee of North Sydney Council Officers: Kim Ketelbey, Louise Menday, Rob Emerson, Margaret Park, David Banbury, David Watts and Paula Wilson.

The consultant team also gratefully acknowledges their considerable help and additional assistance extended by the Mayor of North Sydney, North Sydney Councillors and other Council Officers.

Special assistance has been rendered by Mr Wilf Brogden, former Engineer Manager with Coal and Allied and Mr Philip Mulvey and the staff of Environmental and Earth Sciences Pty Ltd, the tenants of the Coal and Allied site.

The Aboriginal archaeological component of this project was managed in partnership with the Metropolitan Local Aboriginal Land Council. The Land Council Chairperson, Jenny Munro and the Co-ordinator, Jeff Bradford and Aboriginal Sites and Education Officers, Mr Allan Madden and Mr Andrew Roberts, were fully involved throughout the course of the project including field survey, development of conservation and management strategies and site interpretation. Archaeologists who provided specific information on the sites on the peninsula include Professor Sandra Bowdler, Dr Val Attenbrow and John Clegg.

Additional input, including both historical information and extensive comment in response to workshop presentations, has been provided by a wide array of stakeholders. The contribution of the following people (and others who may not have recorded their names during proceedings) is acknowledged.

1.7.1 Key Stakeholders

Name	Organisation/Community Group
Gus Aranega	NSW Department of Public Works and Services (State Property)
Stuart Ashton	NSW Department of Public Works and Services (State Property)
Sheridan Blunt	Department of Urban Affairs and Planning (Sydney Central Branch)
Mark Bourne	EPA Contaminated Sites
Robin Crawford	Woodleys

Name	Organisation/Community Group
Stephen Davies	Head of Conservation, National Trust of Australia (NSW Branch)
Jeremy Dawkins	Manager, Office of Sydney Harbour Management
Brian Evesson	President, North Shore Historical Society
Penny Figgis	Australian Conservation Foundation
Rick Le Plastrier/ Rod Simpson	Architects
Jane McKenzie	National Trust of Australia (NSW Branch)
Fergus McPherson	Waterways Authority
Allan Madden	Metropolitan Local Aboriginal Land Council
Jeffrey Matthews	Environmental Remediation Specialist (Consultant to BP)
Jenny Munro	Metropolitan Local Aboriginal Land Council
Ivan Patrick	Ministry of Forest and Marine
Mike Rolfe	Sydney Harbour Foreshores Committee
Hon. Jillian Skinner	Member for North Shore (NSW Legislative Assembly)
Cameron Sparks	Historian
Janet Torney	Chair, Waverton Precinct
Peter Tranter	Vice President, North Sydney Historical Society
John Vallentine	Waverton Precinct

1.7.2 North Sydney Council Officers

Name	Position
Clr Genia McCaffery	Mayor of North Sydney
Clr Nick Ritten	Councillor, North Sydney Council
Clr Shirley Colless	Councillor, North Sydney Council
Clr Michael Reymond	Councillor, North Sydney Council
Louise Menday	Manager Strategic Planning, North Sydney Council
Paula Wilson	Strategic Planner, North Sydney Council

Name	Position
Rob Emerson	Parks Manager, North Sydney Council
David Banbury	Landscape Architect / Planner, North Sydney Council
Megan White	Landscape Planner, North Sydney Council
David Watts	Aboriginal Heritage Officer, North Sydney Council
Margaret Park	Council Historian, North Sydney Council
Martin Bass	Precincts Manager, North Sydney Council
Sally Williams	Publicity and Publications, North Sydney Council
Kim Ketelbey	Conservation Planner, North Sydney Council

1.7.3 Community Consultation Participants

Name

- Lee Andrews
- Ian Brady
- Catherine Evans
- Eunice Lovell
- Leonard Lynch
- Nan Manefield
- David Moore
- Philip Mulvey
- Tony Simons
- Reiner Spliedt
- Ian Stapleton
- Kevin Stillman
- Charmian Warden
- Jason Zlotkowski

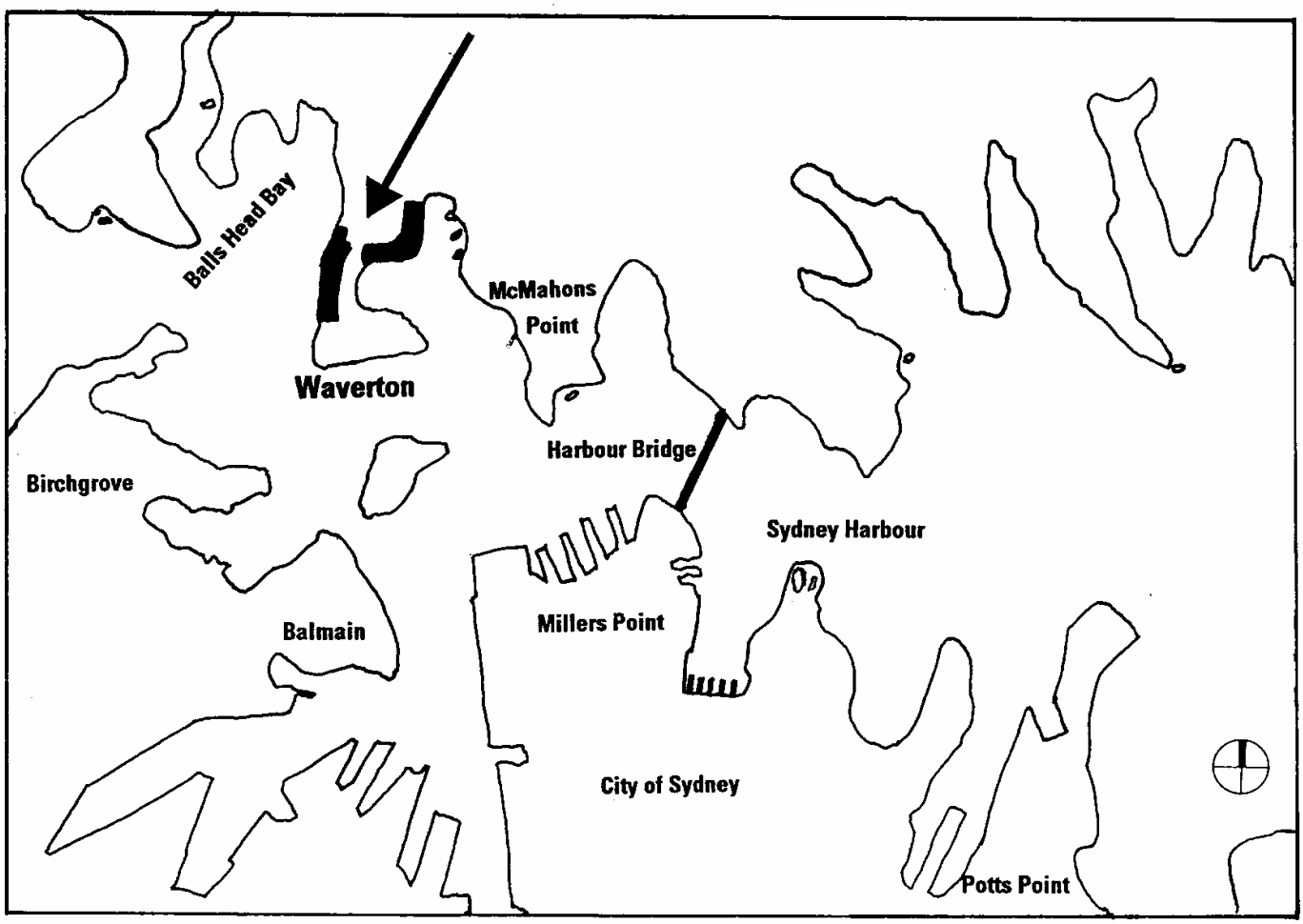


Figure 1.1 Waverton Peninsula Industrial Sites: Location and Context.

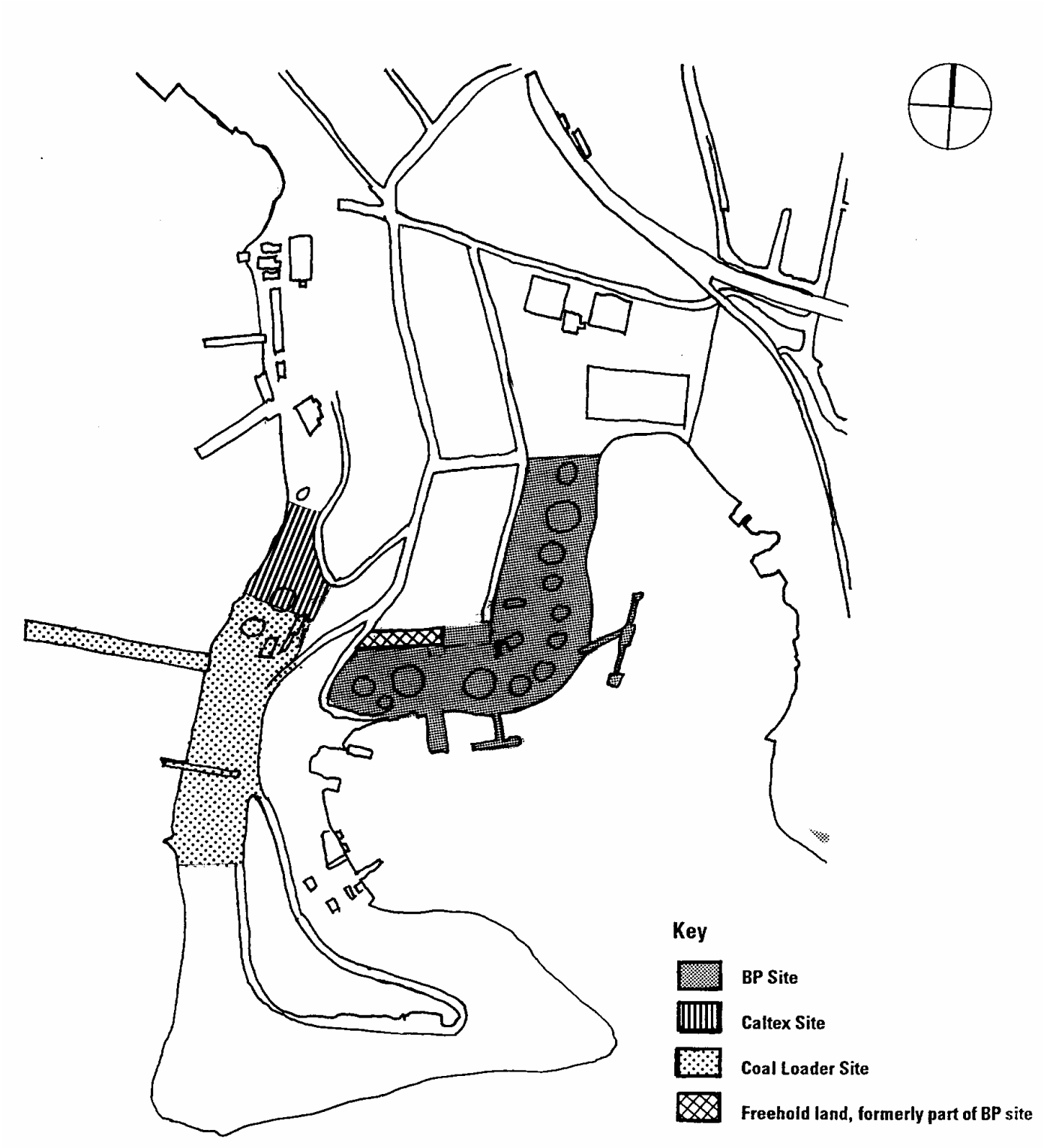


Figure 1.2 Waverton Peninsula Industrial Sites: Site Plan.

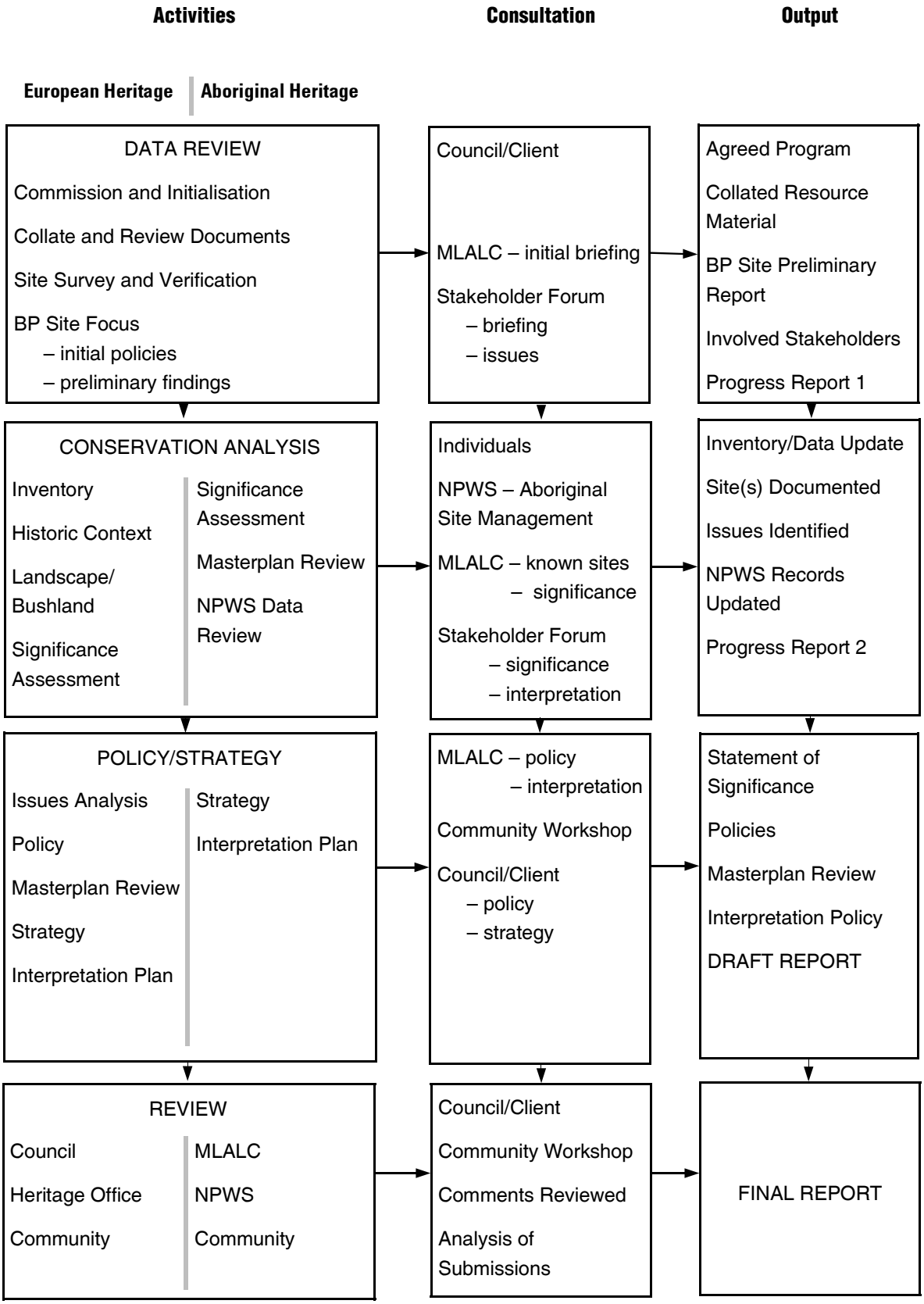


Figure 1.3 Summary of the Study Process.

2.0 Study Process

2.1 Preamble

This section of the report provides additional background information on the tasks undertaken during the preparation of this Conservation Management Plan.

2.2 Data Review

Prior to the commencement of the Conservation Management Plan, the three subject sites had already been addressed in a range of studies and reports including:

- *North Sydney Foreshore Open Space Study*, prepared for North Sydney Council by The Rice Daubney Group, September 1991;
- Rezoning of Land at Berrys Bay, Heritage Report prepared for Scott Carver Pty Ltd by Godden Mackay Logan, January 1992;
- *David Berry Hospital Trust Preliminary Decontamination Study Final Report*, prepared by AGC Woodward Clyde, February 1992;
- *David Berry Hospital Trust Decontamination Study Stage 2 – Soil Testing*, prepared by AGC Woodward Clyde, February 1992;
- *Site Options Document Balls Head Coal Loader Site, Waverton NSW*, prepared by The EJE Group in association with Peter Fenwick, June 1993;
- *Planning Study Crown Land Berrys Bay*, prepared for NSW Property Services Group by Scott Carver Pty Ltd, September 1993;
- *Heritage Assessment of the Outloading System of the the Balls Head Coal Handling Facility*, prepared by EJE Enviroplan in association with Peter Fenwick, 1993;
- *Heritage Assessment of the Unloading Gantry Crane and Wharf at the Balls Head Coal Handling Facility*, prepared by EJE Enviroplan in association with Peter Fenwick, 1993;
- *Balls Head Coal Loading Facility at Waverton, Sydney – Report on Existing Coal Loader Platform with Regard to Re-Usage as Public Open Space*, prepared for North Sydney Council by Gutteridge Haskins and Davey Pty Ltd, November 1994;
- *Foreshore Parks and Reserves Plan of Management*, September 1995;
- *North Sydney Recreational Needs Study*, prepared for North Sydney Council by Hassell, May 1997;

- *Waverton Peninsula Strategic Masterplan*, Volume 1 and Volume 2, prepared for North Sydney Council by CLOUSTON Landscape Architects, Urban Designers, Landscape Planners, March 1999;
- *Draft Remedial Action Plan Former BP Berrys Bay Terminal*, prepared for BP Australia Limited by IT Environmental (Australia) Pty Ltd, May 1999; and
- *North Sydney Council Heritage and Cultural Resources Study*, Volume 1, prepared by Australia Street Company with Paul Davies Architects, Spackman and Mossop, July 1999;

Copies of these reports were made available to and reviewed by the study team.

In addition, existing published historical material relating to North Sydney was reviewed and primary historical research was undertaken at the Stanton Library. Consultation occurred with a range of informants including Wilf Brogden, Jeff Matthews, Phillip Mulvey, Margaret Park, Tony Prescott, Cameron Sparks, and John Valentine. A full list of sources is included in Section 5.0.

2.3 On-site Documentation

The study team conducted initial site-familiarisation visits at an early stage.

In response to a request from North Sydney Council, initial efforts were directed at the BP site, so as to provide early preliminary advice, to assist with remediation activities and early provision of public access.

All three sites were systematically inspected for Aboriginal relics, in the company of site officers from the Metropolitan Local Aboriginal Land Council. Where appropriate, this information has been recorded on NPWS Site Cards and/or North Sydney Council's Aboriginal Heritage Data Sheets.

Each of the sites was also systematically traversed, in order to identify and record historic and industrial features. Where appropriate, these are described in the main report and/or recorded in North Sydney Council's heritage database. Elements of the site with natural heritage values and the overall landscape values of the sites were considered through a series of site visits, which included analysis of views available to and from surrounding areas and the water.

2.4 Stakeholder Involvement

As a result of the Strategic Masterplan process, a well-defined list of stakeholders already existed. This list was the basis for invitations to three stakeholder workshops held to:

- elicit information about significance of the sites and issues, and to report on preliminary findings from the BP site;
- present and discuss the preliminary assessment of significance of the site; and

- present and discuss draft policies and findings.

These workshops were attended by a select but diverse group of participants. There was a high degree of interaction which included articulation of a range of views, (including opinions which differ from those of the consultant team). Participants in the stakeholder workshops were encouraged to communicate directly with the consultant team and this occurred in a number of instances.

A separate workshop meeting to address Aboriginal site management was held with the Metropolitan Local Aboriginal Land Council.

2.5 Community Consultation

Information on the Conservation Management Plan process was provided to the North Sydney community through:

- community noticeboards;
- precinct committees;
- advertisements in the local media; and
- circulation of printed leaflets.

The first community consultation meeting was held following completion of the initial Significance Assessment. At this meeting, a range of viewpoints regarding the significance of the sites and their future management were gathered. This first meeting also emphasised strongly the need for further and earlier dissemination of information about the next meeting.

At a second community consultation meeting the consultant team presented findings on the significance of the sites and proposed conservation policies. A range of comment and feedback was received both at this meeting and subsequently.

A presentation about the project and its initial findings was also made at a meeting of the Waverton Precinct Committee.

2.6 Significance Assessment

The heritage significance of the study area was addressed at a number of levels including:

- the three industrial sites on the Waverton Peninsula, as an entity;
- the individual sites; and
- specific components within each site.

The framework used for assessment of significance is set out in further detail in Section 8.0 of the report. The methodology considered the criteria for significance assessment published in the *NSW Heritage Manual*. Input, with respect to each criterion, was provided by study team members, as well as through consultation at both a stakeholder workshop and the first community consultation meeting. The significance of the study area is presented as an overall Statement of Significance, a Statement of Significance for each of the three sites and an individual relative ranking of major elements within them.

2.7 Policy Development

Following completion of the assessment of significance, the diverse range of constraints, issues and opportunities that affect heritage management options for the study area were identified and analysed. These include:

- heritage significance;
- the *Burra Charter*;
- physical conditions;
- statutory controls;
- Strategic Masterplan proposals; and
- stakeholder concerns and objectives.

Having regard to these matters, policy statements were devised which maximise retention of heritage values, consistent with recognition of, or compliance with, other constraints, as appropriate.

2.8 Strategic Masterplan Review

The study team was familiar with the Strategic Masterplan throughout the course of the project. The Masterplan proposals were actively considered during the course of the conservation policy development. The report includes a succinct analysis of the Masterplan proposals, considered in the light of the Conservation Management Plan findings. This analysis supports the general thrust of the Masterplan but also recommends minor reconsideration and fine tuning in some areas.

2.9 Interpretation

Interpretation of the layered history and significance of the three industrial sites is recognised as crucial to their conservation. The project outcomes include an interpretation policy and an outline interpretation plan which provide a clear basis and direction for detailed design development.

2.10 Implementation Strategy

The concluding section of the report sets out a concise strategy for implementation. This strategy recognises the important role of North Sydney Council as responsible authority, as well as the statutory role of other agencies. The strategy is framed as a series of specific recommendations, followed by a master chart with an indicative time frame and the relative priority of each task clearly indicated.

3.0 Waverton Peninsula: The Place

3.1 Location

The Waverton Peninsula is a sandstone peninsula extending south into Sydney Harbour between McMahons Point (to the east) and the Hunters Hill/Woolwich Peninsula (to the west).

3.2 Context

The local government area of North Sydney is predominantly made up of sandstone peninsulas on the northern side of Sydney Harbour, with bays between, extending from Berrys Island in the west to Cremorne Point in the east.

3.3 Topography

The subject site on the Waverton Peninsula is in the Hawkesbury Soil Landscape Grouping, characterised by Hawkesbury Sandstone, with local relief of about 40m, slopes greater than 25% and extensive rock outcrops. This part of the Peninsula is a narrow ridge, with steep sideslopes and rocky benches. Soils are shallow Sands on the sandstone, with some Yellow Podsolic Soils on the inside of benches and along joints and fractures. There may be localised Yellow and Red Podsolic Soils associated with shale lenses and Siliceous sands and secondary Yellow earths along drainage lines.

3.4 Landscape

3.4.1 The BP Site

The landscape of the BP site has been extensively modified from the natural topography by excavation for the installation of oil and petrol storage tanks and associated facilities. The removal of the tanks and much of the other infrastructure from the site has left a landscape characterised by a series of wide sandstone benches, with various areas of concrete, bitumen and soil fill (see Figure 3.1).

The uppermost level, east and south of Larkin Street, retains the former office building for the BP facility and remnants of pipelines and safety fences along the rim of the escarpment. This level is largely denuded of vegetation. At a lower level, along the eastern side of the site is a flat bench with a series of semi-circular cuttings into the original sandstone cliff. These were the sites for storage tanks and feature masonry walls around their inland sides, forming shallow moats that have become mini-wetlands. The slopes above these cuttings support low shrubs and weed growth. The east-facing slopes of this part of the site support a mix of indigenous trees and shrubs with common bushland weeds, leading down to the western shore of Berrys Bay. Above the slopes a large

concrete retaining wall creates the flat paved area adjacent to Larkin Street. This wall creates a straight parapet background to the site and is a prominent visual feature (see Figure 3.2).

On the south and southwest-facing sides of the site, below the former BP administrative building, the rocky slopes are partly natural and partly excavated for installations associated with the former use of the site. These include a series of steps with steel railings. In the northwest corner of the BP site, to the east of the end of Balls Head Road, is another flat area, mostly fill on sandstone. The lowest level of the site, along the southern foreshore of Berrys Bay, is another bench, partly paved with concrete and partly filled. A large storage shed is set back against the cliff, with hard-stand concrete paving between the shed and the shoreline. The western part of this lowest level features a substantial concrete bund wall with stone facing on its outer side. The area enclosed by this wall is partly filled with crushed stone and soil.

3.4.2 The Caltex Site

The Caltex site is a west-facing slope between the Coal Loader site and the naval establishment HMAS Waterhen. A flat area formerly occupied by oil storage tanks is currently used by an engineering contractor who has located a number of shipping containers and other equipment on site. Between this area and Balls Head Road is an area of remnant bushland. The lower slope, leading down to the foreshore, is steep, with two sandstone overhangs showing evidence of Aboriginal occupation. This slope supports remnant indigenous vegetation in the form of *Angophora costata* trees with a weed-infested understorey (see Figure 3.3).

3.4.3 The Coal Loader Site

Occupying the western side of the narrow part of the Waverton Peninsula, the Coal Loader site is between the Caltex site and Balls Head. Extending from the ridge at Balls Head Road down to the foreshore, the site is a series of slopes and benches, heavily modified in the past to accommodate ancillary buildings immediately west of the road, storage tanks on the northern part of the site, and the massive structure of the Coal Loader itself taking up most of the southern part of the site (see Figure 3.4).

3.5 Views

The Waverton Peninsula has a prominent, tree-covered ridge line, and a rocky outcrop onto the eastern side. It is clearly visible from Dawes Point and the harbourside suburbs along the south western shores of Sydney Harbour.

Panoramic views from the Peninsula extend from North Sydney to the Sydney Harbour Bridge, Goat Island, City and harbourside suburbs including Greenwich and beyond to the Parramatta River.

All three sites provide significant views to and from Sydney Harbour and their adjacent bays. The modification of the landform to accommodate industrial structures has resulted in a series of terraces and slopes, offering commanding views and a powerful cultural landscape evocative of former uses.

3.5.1 The BP Site

From the upper levels of the eastern part of the BP site there are expansive and spectacular views over Berrys Bay, with Waverton Park on the left, the dolphin wharf on the western shore, interesting boat-building and repair operations and recent residential developments on the eastern shore of the Bay, then to the right, Blues Point, with much of the arch of the Sydney Harbour Bridge visible beyond, and the entire northwestern and western skyline of the Sydney CBD (see Figure 3.5).

The lower levels of the eastern side of the BP site provide more enclosed spaces, with views of the sandstone cuttings on their western sides and filtered views of Berrys Bay on their eastern sides.

The south-facing upper levels of the BP site afford equally expansive and spectacular views over the Harbour to the CBD (see Figure 3.6). In the northwestern corner of the BP site is a mid-level platform, also affording extensive views over the Harbour to the southeast, constrained by the outcrop of Balls Head to the right (west). The wide platform along the southern edge of the BP site allows closer views of the boat repair operations in the Bay and across to the Quarantine Station on the eastern side of Balls Head.

3.5.2 The Caltex Site

The Caltex site offers attractive filtered views through remnant indigenous trees to the waters on the western side of the Waverton Peninsula and to the adjoining naval property HMAS Waterhen (see Figure 3.3). Industrial equipment belonging to the current tenants of the site poses a negative visual impact.

3.5.3 The Coal Loader Site

Most parts of the Coal Loader site offer commanding views to the southwest, west and northwest, over the Harbour, the Woolwich-Hunters Hill Peninsula and Gore Cove. From the top of the Coal Loader there are interesting views over the Harbour in the foreground, urban development in the middle distance, and to the superstructure of the Anzac Bridge (new Glebe Island Bridge) (see Figure 3.7). Within the site are views of the monumental Loader with its sandstone facing and tunnel portals.

The repeating forms of the engaged piers and gantries along the western elevation of the Coal Loader create strong visual imagery (see Figure 3.8). The huge timber wharf extending out into the Harbour from the Coal Loader is a dominant element in the landscape, highly visible from the foreshore and the water in Gore Cove (see Figure 3.9). An access point in the deck of the wharf near its eastern end provides visitors to the site with stunning views of the supporting timber

structure. The repeating, interlocking forms of the timber piles and bracing members present a view rarely seen today, evidence of our past reliance on wood for the construction of major engineering structures such as wharves and jetties (see Figure 3.10).

Within the Coal Loader site, remedial landscaping works carried out in recent years by the current tenant have produced a number of enclosed spaces characterised by ornamental plantings of native species and an artificial wetland in the depression once occupied by a large storage tank.

3.6 Relationships

The BP, Caltex and Coal Loader sites are part of a group of industrial and related sites on the Waverton Peninsula. The other sites are the former Quarantine Station Launch Depot and Woodley's Pty Ltd, Shipyard and Marine Engineers, adjacent to the BP site on the eastern side of the Peninsula. On the western side there is HMAS Waterhen and, to the north of the Caltex and Coal Loader sites, the cleared site of the former North Shore Gasworks.

Across Balls Head Bay to Manns Point is the Shell Depot which has deep-water mooring facilities and holding tanks connected by pipeline to the refinery at Homebush Bay. The BP site is historically linked to the site of WG Mathews residence near Balls Head Road as well as the slipway and sandstone sea walls on the Woodley's site. The Coal Loader and BP sites are also historically linked to company-owned houses for the managers and staff at Nos 15 and 17 Balls Head Road adjacent to the BP site.

Prior to the deep sea ports of Newcastle, Wollongong and Port Botany during the early twentieth century, Sydney Harbour was the only port with adequate facilities to unload and load, repair and refuel ships, as well as handle and distribute their cargoes. It was in this climate that the BP, Caltex and Coal Loader sites emerged. Other harbour-based coal depots operating at the same time included Millers and Jones Bros, both at Pyrmont. Coal & Allied bought these firms during the 1970s. Other refineries included the former Mobil Depot at Pulpit Point, Hunters Hill and former Caltex Depot on Ballast Point at Balmain. Each of these sites has been closed down, with the Millers and Jones Bros sites being in the process of being redeveloped and the Mobil Depot at Pulpit Point redeveloped as residential housing. The Caltex Depot on Ballast Point remains as the only example of the three yet to be developed.

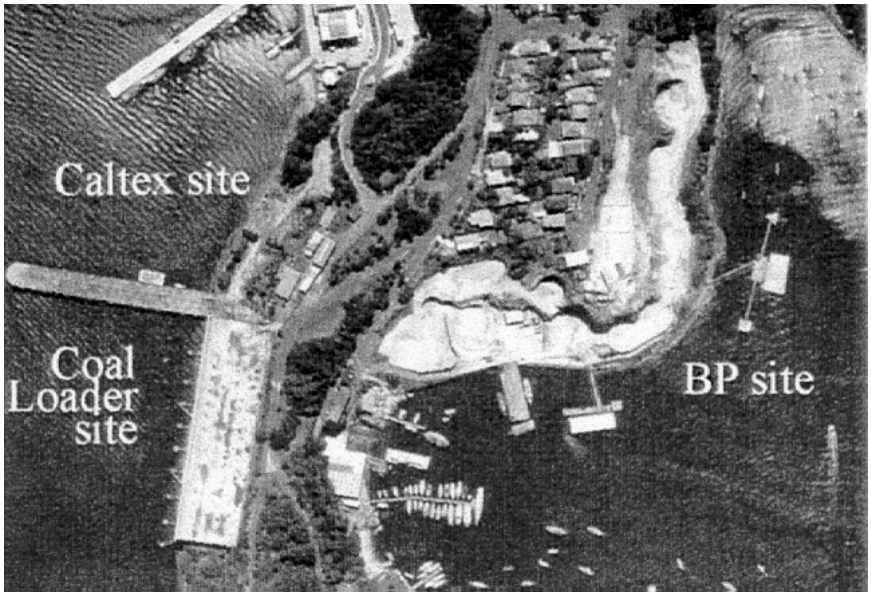


Figure 3.1
Waverton Peninsula, aerial view, with industrial sites indicated.

Figure 3.2
The BP site is characterised by walls, cuttings and fill that are visually distinctive as a modified landscape.

Figure 3.3
On the Caltex site remnant bushland and natural foreshores provide attractive Harbour views.

Figure 3.4
The Coal Loader platform and tunnels are major landscape elements.

Figure 3.5
The BP site offers interesting views of the boat building and repair operations in Berrys Bay.

Figure 3.6
The upper levels of the BP site offer panoramic views of the Harbour and Sydney CBD and opportunities for innovative interpretation of the past industrial use by conserving surviving infrastructure.

Figure 3.7
The upper levels of the Coal Loader platform provides majestic Harbour views.

Figure 3.8
The Coal Loader platform and its dominant masonry and gantries display strong visual imagery.

Figure 3.9
The dramatic form of the Coal Loader wharf is a major industrial icon in Sydney Harbour.

Figure 3.10
The repeating, interlocking fans of the Coal Loader wharf superstructure have distinctive aesthetic qualities.

4.0 Aboriginal Heritage

4.1 Environmental Setting

In the vicinity of the study area the Waverton Peninsula has been largely modified for industrial use. The foreshores are reclaimed or reformed by retaining walls or fill. The natural drainage of the study area has been altered and no original water courses or drainage lines, if present, have survived the industrial development. It is of relevance to the survival of undisturbed Aboriginal archaeological remains that only three areas of relatively undisturbed landform remain:

1. a narrow stretch of foreshore at the northern end of the BP Site;
2. a small area comprising intact sandstone outcrops at the upper level of the BP site;
3. a small area comprising natural bushland and talus slope at the northern end of the Caltex Site.

The study area is bounded by Waverton Park, HMAS Waterhen and residential development in the north and Balls Head Reserve and maritime-based development in the south. There are a number of Aboriginal sites associated with the sandstone formations adjacent to the study area.

4.2 Initial Contact and Tribal Boundaries

King George III, in 1787, issued instructions regarding the 'native inhabitants' of NSW to the future Governor of NSW, Governor Phillip, to:

> *endeavour by every possible means to open an intercourse with the natives, and to conciliate their affections....You will endeavour to procure an account of the numbers inhabiting the neighbourhood of the intended settlement.*[1]

Phillip was also instructed to gather information on the 'natives':

> *maintain friendly relations with the natives if possible and transmit to England such information of scientific interest as he might be able to gather.*[2]

Phillip's curiosity about the Aboriginal owners is evident in his writings.

In February 1790 he wrote to the Colonial Office in London with the following comment on tribal boundaries:

> *about the north-west part of this harbour there is a tribe which is mentioned as being very powerful...The district is called Cammerra; the head of the tribe is Cammerragal, by which name the men of that tribe are distinguished. A woman of this tribe is called a Camerragalleon...*
>
> *From the entrance of the harbour, along the south shore to the cove adjoining this settlement, the district is called Wann, and the tribe Wanngal. The opposite shore is called Wallumetta, and the tribe, Wallumedegal.*

The other tribes which live near us are those of Gweagal, Noronggerragal, Borogegal, Gomerrigal, and the Boromedegal.[3]

There has been much argument and discussion among researchers regarding the tribal and linguistic boundaries in the Sydney region prior to contact. The impact of a virus (probably smallpox) which swept through the Aboriginal population soon after the Europeans arrived, combined with the enormous cultural differences between the two groups, has made a definitive understanding impossible.

The most integral part of Aboriginal culture is the spiritual and physical relationship between people and land. Governor Phillip commented in 1790 that an Aboriginal group was identified by adding a suffix to the word describing the area where they reside.

It is the subtleties of this relationship between Aborigines and land and also their tendency for mobility which has made the definition by Europeans of groups of Aborigines into tribes a problematic one.

Although the early colonists referred to groups such as the ...[Cammeraygal]... as tribes, most current researchers would describe the groups named by Phillip and others, as bands or clans, even though the number, names and distribution of these groups, and the relationships between them, is still open to debate.[4]

Attenbrow explains that in other parts of Australia, bands or clans are described as being land-owning groups with a specified territory and consisting of persons related through kinship ties. She goes on to say that it is assumed that the same would have applied in the Sydney region and suggests that each band or clan would have been part of a tribe, there being several clans in a tribe.

Linguistically, the Aboriginal people of the North Sydney area belonged to the Kurringai or Guringai group of speakers. Ross, citing Capell, argues that this language was spoken from the north side of the Sydney Harbour to as far north as Lake Macquarie[5]. She presents arguments based on early primary historical sources on Aboriginal movement, differences in material culture and apparent difficulties in communication for the tribal boundaries and inter-tribal contacts between the inland Dharukk and the coastal Guringai groups. There is an ongoing academic debate on this issue which has direct bearing on Native Title claims in the region. The Metropolitan Local Aboriginal Land Council (LALC), among others, dispute current Dharukk tribal claims to this part of Sydney.

4.3 Post Contact History of the Study Site

The evidence relating to the post-contact history of Aborigines on the north shore is very scant. The only evidence directly linking the study site with the post-contact habitation of Aborigines comes from an excavation of a rock shelter at Balls Head which occurred in 1964, in which a human skeleton and artefacts were discovered. Among the artefacts were some items of glass and of these it was reported:

> *artefacts found of European origin included some heavily patinated, thick pieces of glass, some possibly flaked, and some lumps of melted lead in conjunction with very small spherical pieces of lead. The glass occurred in the top four inches of the front undisturbed midden and may indicate that the site was inhabited by Aborigines into early colonial days. The lead comes from more disturbed areas. Some larger pieces are obviously fishing sinkers of quite modern type, however, Mr Miles (Director of 1964 excavation) suggests that the small balls and lumps may represent musket shot being manufactured within the shelter itself.*[6]

Due to disinterest born mainly of a Eurocentric mental framework, little of the customs and practices of the original inhabitants of the study area has been recorded. This lack of information is further hampered by the fact that the smallpox epidemic which began in 1789 had such a devastating effect on the local Aboriginal population that by 1793 Hunter expressed surprise at not seeing 'a single native on the shore, or a canoe', when he sailed into Sydney Harbour.[7]

The survivors of the epidemic regrouped and formed associations which became known by titles such as the Broken Bay Tribe, the Kissing Point Tribe and the Botany Bay Tribe. These regroupings involved social reorganisation and the possible merging of language and culture.[8]

By the 1820s those Aborigines left living in the Port Jackson area lived on the margins of European society. Some were employed to clean out brandy barrels or track escaped convicts whilst some women found employment as domestic servants. Metal breast plates were awarded to those Aborigines who were useful to the colonial powers, of which one commentator of the time claimed were employed to gradually '…accustom the natives to submission'.[9] In 1820 a member of a Russian Naval Expedition, FG Bellinghausen, noted:

> *The natives remember very well their former independence. Some expressed their claims to certain places, asserting that they belonged to their ancestors. It is easy to understand that they are not indifferent to being expelled from their own favourite localities, despite all the compensation offered to them, a spark of vengeance still smoulders in their hearts.*[10]

Governor Macquarie granted a group of sixteen families, led by Bungaree, land on Georges Head to try to encourage them to adopt European farming practice and also to attempt to stop the complete disappearance of the native population. This group had left the land granted to them by 1830 after the death of Bungaree.

A group of Aborigines also lived at Balmoral during the mid-nineteenth century. A European, James Hugget (born in 1844), learnt these people's language and some of their lore. He recorded one interview before his death in 1926 where he recounted a large gathering of over 500 Aboriginal people at Milsons Point for a corroboree: 'They had come from all parts of the coasts districts, and after the wild ceremonies they disappeared with almost uncanny secrecy'.[11]

By the 1860s the Aborigines were only occasional visitors to the north shore. A group of notes in the Local Studies Collection at Stanton Library records the memory of a Doctor Agnes Barnett who stated:

> *At Christmas time, the 'Blackfellows', as they called the Aborigines, would come up in hordes from the country and camp in the caves in the Cremorne Reserve. There they waited to receive the annual gift of a blanket each, given by the Government. Traces of these gatherings could still, until quite recently, be seen in the heaps of half-burnt shells around the caves.*[12]

LF Mann, in 1932, recorded that during the visit of Prince Alfred in 1868, the Aborigines that were collected from the different districts to perform a large corroboree before the royal visitor, camped about where St Johns Church now stands on the southern heights of Careening Cove.[13]

The engravings and middens that still exist throughout the North Shore serve as reminders to the current residents that there once was another group of inhabitants who valued that land at least as highly as today's real estate market and probably valued it in other ways that we can only struggle to understand.

4.4 Background to Aboriginal Sites in the Sydney Basin

The greater Sydney region has been inhabited for at least 20,000 years with dated sheltered occupation sites in the Blue Mountains and its foothills. The earliest dated coastal sites are at Burrrill Lake also dated to 20,000 years ago, and at Bass Point, dated to 17,000 years ago. These would have been occupied at a time when the sea level was much lower and the present coastline would have been an inland environment drained by streams. There are no other Pleistocene sites, or sites dated to the last glaciation on the Sydney coast. There are two sites dated to around 7,000 years ago. They are a sheltered midden at Curracurrang in Royal National Park and an open campsite containing a hearth at the Prince of Wales Hospital in Randwick. The majority of sites throughout the Sydney Basin are dated to within the last 2,500 years and, in the Sydney area, demonstrate exploitation of marine resources at the current sea levels.

Coastal sites in and around Sydney were largely ignored by archaeologists until relatively recently. The majority of sites investigated were located south of Sydney and the Georges River. Until recently the focus of investigations was on the stone artefacts made by the Aborigines in the past, the sequence of changes to their form and on comparisons with inland sites. More recent studies have focused on the way the Aboriginal owners adapted to the coastal environment and immediate hinterland.

Attenbrow argues that the early occupation was not intensive nor by large groups of people, and that around 5,000 years ago, when the sea levels stabilised at the present levels, more intensive use began. [14] Many open sites were first occupied in the last 1,500 years. These arguments are also based on changes in stone tool assemblages and observable changes in the use of certain types of

stone used in tool manufacture. The earlier phases of occupation are characterised by large cores and scraper tools. This is followed by the addition of a variety of backed implements, known as backed blades, geometric microliths or Bondi Points, to the larger tools around 5,000 years ago. By 1,500 years ago the backed forms have gone out of use and the sites are characterised by quartz bi-polar artefacts and more opportunistic or undifferentiated small tools. It might be assumed that the many artefacts made of shell, bone or wood and widely observed at the time of the invasion were also in use in the past but these have not survived in the archaeological record. More recent excavation of foreshore sites in the Sydney area have all yielded dates of less than 4,000 years.[15] Further inland, a rock shelter site in the Darling Mills Creek at West Pennant Hills provided a radiocarbon date of 10,150 ± 130 BP [Wk-2511] and an Aboriginal hearth at the Prince of Wales Hospital was dated to 7,860 ± 50BP.

The distribution of Aboriginal sites is strongly related to bedrock geology and local topographic features, including elevation and water resources. Aboriginal sites have been located in all topographic contexts from valley floor to ridge tops. The most common Aboriginal site type in the coastal region is shell midden. These are most often low density scatters of shell, occasionally with some depth and often associated with other cultural remains such as stone tools, fish bone, hearths and burials. In areas of sandstone formations these middens are often found in rock overhangs. They may also be found in deposit adjacent to water courses close to the aquatic resources. The survival of sites relates to the degree of past disturbance to landforms and in the context of the present study area least disturbed areas could be expected in any undeveloped land.

As early as 1899 Aboriginal art sites in the Sydney Basin were a focus of study with systematic attempts being made to locate and record engraving sites. While it appears no-one observed the Aboriginal owners of Sydney making an engraving and apparently none were able or willing to tell the white colonists who had made them or what they signified, it is certain that rock painting continued in Sydney after the invasion. For example, Aboriginal artists made pictures of sailing ships, soldiers and guns and cattle. Much of the interpretation of the engraving and painted art sites in the Sydney region is based on comparisons to areas for which information has survived or the art tradition continues.

4.5 Known Aboriginal Sites on the Waverton Peninsula

Prior to the present study no Aboriginal sites were known to be located within the BP, Caltex or Coal Loader sites. These sites had not previously been the subject of comprehensive archaeological survey.

A number of sites were known for the immediately adjacent areas and are registered on the NSW National Parks and Wildlife Service (NPWS) Register of Aboriginal sites, including an engraving site at the entrance to the Coal Loader site. The previously known Aboriginal sites along the Waverton peninsula are concentrated within areas which have been subject to relatively minimal land

alteration: Waverton Park and Balls Head Reserve. They have been variously recorded by amateurs and professional archaeologists and these recordings have not been subject to review or verification of site locational data or content and condition.

The first recording of an Aboriginal site on the peninsula was made by JF Mann in the early 1840s. Mann's sketches of the Whale engraving at the entrance to the Coal Loader site were subsequently referred to in 1899 by WD Campbell who made extensive recordings throughout Sydney including the Whale engraving site and a Shelter with Art at Balls Head. Later recordings have been of engravings, middens and sheltered occupation sites at Balls Head and Waverton Park bordering on the study area. Some of these sites have been promoted in an effective, relatively low-key walk around Balls Head. A burial within a sheltered occupation site on Balls Head which also contained stencilled art was the subject of an archaeological excavation in the 1960s.[16] There has also been a report of excavations and collections of artefacts made by a Shore Grammar Master at sites at Balls Head and/or Waverton Park.[17] This report is currently being verified through Shore Grammar School and the Australian Museum and has implications for the interpretation of the known sites and any on-site display material as may be proposed for the area. The Australian Museum currently holds no collections of Aboriginal cultural material from the Waverton Peninsula.[18]

Philip Mulvey, while resident at the Coal Loader site, collected an Aboriginal stone axe head from a sand/rock shelf exposed at low tide immediately off the Caltex site foreshore (see Figure 4.9). The axe head is currently in his possession.

There is considerable information on the Aboriginal sites of the Waverton Peninsula. The NPWS Register of Aboriginal Sites lists 12 sites (see Table 4.1) in the immediate area. However, there is also considerable discrepancy and inaccuracy in the available data. Most of the Grid References for these sites are obviously incorrect (locations in the Harbour or on tidal rocky platforms). Some of sites may have been recorded twice, such as in Waverton Park, and have two separate NPWS Register of Aboriginal Sites accession numbers. One of the sites was excavated relatively early in terms of systematic archaeological investigation, and the information about this excavation remains relatively inaccessible to the Aboriginal community. The majority of the recordings have been made by an amateur recorder (M Guider) who drew on earlier published data but made no detailed site recordings. Few of the sites have been ground truthed for accuracy of grid references or for veracity of content or for systematic and detailed recording. The main engraving site, immediately opposite the Coal Loader, is a highly significant site which has not been carefully studied or subject to detailed recording. In 1963 Rosemary Taplin made a series of recordings of some of the sites on the Peninsula including the Whale engraving. She located additional engraved figures which had been missed by previous recorders. Early attempts to protect and manage this site have not taken into account all of the motifs identified by the original or the latest recording, or others which may have been missed.

Table 4.1 : Known Aboriginal Sites on Waverton Peninsula

NPWS Site #	Site Type	Location	Comment
45-6-0026	Engraving Originally recorded by Campbell 1899 Subsequent recordings by Taplin 1963; Earle 1985	Opposite Coal Loader	Numerous motifs were reported including a Whale and several human figures. Some of the motifs have not been relocated. Some may have been destroyed. The current fencing encloses only a few of the motifs originally recorded. It is possible all motifs at this site were not found in original recording. A later recording identified a Boomerang and 3 Mundoes. 43 feet south of the main Whale figure are 4 fish engravings. Requires intensive ground search to relocate all motifs, removal of silt and ground cover, systematic recording and remedial works to remove fencing and paint on grooves and ensure accurate definition and conservation of the site.
45-6-1268	Midden recorded by amateur	West of Balls Head Road c. 100m south of 45-6-0026	Current status unknown. Location and content should be checked. Not relocated during current study at recorded grid reference. Location is reported to be within Balls Head Reserve.
45-6-1232	Shelter with painted and drawn art Known as 'Unbelievable Cave'	West side of Balls Head Road c. 200m south of 45-6-0026 Accessible only at low tide	Current status unknown. Location and content should be checked
45-6-2180	Shelter with Midden	Just south of Quarantine facility	Requires verification of location and content
45-6-628	Engraving recorded by amateur who also made new engravings	Within Balls Head Reserve near picnic tables	Grid reference is obviously inaccurate. Some of these engravings may not be Aboriginal. Some are presently obscured by encroaching ground cover.
45-6-891	Shelter with midden and art: stencilled hands	Within Balls Head Reserve	Numerous painted figures not all recorded.

NPWS Site #	Site Type	Location	Comment
45-6-0027	Shelter with Art, midden and burial	Within Balls Head Reserve	Recording by amateur. Grid reference inaccurate. Requires urgent conservation and management
45-6-1267	Midden	Within Balls Head Reserve	Grid reference inaccurate. Requires verification of content and location.
45-6-630	Shelter with Art Recorded by Campbell 1899	Within Balls Head Reserve	Likely to be same site as 45-6-0027 (see above).
45-6-2147	Shelter with midden	Western side of Waverton Park	Current status unknown. Recorded by professional, condition and assessment required.
45-6-906	Shelter with Art	Western side of Waverton Park	Current status unknown. Recorded by amateur, content and location requires verification. Also referred to as an occupation site uncovered during excavation of historic site.[19]
45-6-2181	Shelter with midden	Eastern side of Waverton Park	Current status unknown. Recorded by amateur, content and location requires verification.

The Waverton Peninsula sites include: open rock engraving sites, open and sheltered occupation sites, a sheltered stencilled art site and a burial site. These sites represent a good selection of the range of site types that may be found in the Sydney region. These types of sites are briefly described below.

Occupation Sites

These sites exhibit evidence of the way the Aboriginal owners occupied and utilised an area. They may comprise accumulations of discarded shellfish remains known as shell middens or layered deposits containing stone artefacts, hearths, durable food remains. They may be in a sheltered or open air context. Sheltered occupation sites are found in sandstone overhangs where weathering or erosion has formed sufficient space in a rock outcrop or sandstone formation to afford shelter from the elements. Shelters as small as 1mx1mx1m have been shown on excavation to contain occupation deposit. They may also contain art. Sheltered occupation sites are the most common type of occupation site in the Sydney region.

Open camp sites comprising open artefact scatters are rare in the Sydney region. Open shell middens are more common. They are a concentration of cultural remains that include a significant proportion of marine or freshwater shell. They are usually the result of interim or base camp activity and are normally located close to the aquatic environment and freshwater sources. They may also contain durable non-aquatic food remains or features such as bird, fish or animal bone and/or features such as hearths or stone tool workshops. Occasionally they contain burials.

Painted or Drawn Art Sites

The distribution of these sites relate to the occurrence of suitable rock outcrops and surfaces common in the Sydney sandstone formations. Painted or drawn art may be located on the ceilings or rear walls of an overhang. They may be in shelters which contain occupation deposit or occur on their own. Aboriginal artists used a number of techniques to create their paintings. Motifs may be drawn in charcoal or painted in ochres or white clay. Stencils of hands, body parts, implements, and plants may be made with ochre or clay. Art sites may contain single motifs or multiple depictions. Some sites show repeatedly used shelters with overlapping motifs.

Rock Engravings

Engravings may be produced by the abrasion or percussion on flat, even rock surfaces in either open or sheltered locations. They are often located on high vantage points along ridgelines at the headwaters of creeks but can be located on any suitable, fine-grained sandstone surface. Engraved designs include depictions of animals, fish, birds, humans, mythical beings and footprints and animal tracks. They may be in isolation or in large groups or compositions.

Burials

Burials are generally located in dry, elevated soft sediments such as sand and alluvial silts. They are usually only visible where there has been some disturbance of the subsurface sediments or where erosional forces have exposed them. Burials are also found within rock shelter sites and midden deposits.

The earliest observations of Aboriginal mortuary practices in the Sydney region were made by officials and settlers of the First Fleet. The only forms observed were internment and cremation. The ethnographic evidence has been summarised by McDonald, who argues that in Sydney the burial of the dead occurred in ad hoc, non-contiguous locations, usually in the open.[20] Variations in methods have been related to age and initiation level and grave goods consisting of personal possessions (fishing spears, throwing sticks etc) rather than ritual items, were involved. Angas reported that older people were cremated and the young were buried beneath small mounds of soil.[21]

There are no early accounts describing burial in middens or sand bodies, such as beach foredunes. The only early references to burial in rock shelters relate to deaths from the 1789 epidemic. However, the surviving archaeological evidence indicates these places were commonly used along the coastal strip, such as the example within a sheltered overhang within the Balls Head Reserve.

The Australian Museum and Shellshear Museum collection of Aboriginal skeletal material for the Sydney region is limited to the coastal strip (up to 5km inland) and all have been reportedly retrieved from shell midden deposits in coastal sand formations or in sheltered deposits in sandstone overhangs. These collections are made up of individuals accidentally uncovered and retrieved by archaeological excavation. The archaeological evidence indicates interment in living sites, often of several individuals. These burials are associated with habitation remains. There are no cemeteries (that is, places specifically set aside for the disposal of the dead and which have no occupation evidence) known for the Sydney Region.

Other site types which could be expected to have survived in the study area include:

Scarred or Carved Trees

These sites are extremely rare in urban areas. They result from bark or wood removal to make shields, shelters, canoes, containers, and/or carve designs into the exposed wood. Few have survived in a natural state because of past timber clearance, bush fire regimes and rate of deterioration. Unless the tree is at least 100 years old the scarring is unlikely to be of Aboriginal origin. There are no scarred trees in the North Sydney area although this may be because of a lack of systematic survey.

Axe Grinding Groove Sites

These are elliptical grooves in sandstone which result from the manufacture of, or maintenance of the working edge of a stone hatchet. They may be found where suitable sandstone is exposed in or adjacent to water sources. They are often found in sandstone creek beds or on rock platforms associated with rock pools to enable a wet-grinding technique.

4.6 Aboriginal Site Survey

The field survey comprehensively investigated each of the BP, Caltex and Coal Loader sites. The survey was conducted by Mary Dallas and the Site Officers of the Metropolitan LALC, Allan Madden and Andrew Roberts. Three previously unidentified sites were identified by the survey. The sites are coded **CL 1** and **C 1** and **C 2**. The sites have been recorded on Standard NPWS Site Recording Forms and submitted to the NPWS Register of Sites for accession and recorded on a North Sydney Council site form for entry onto the North Sydney Council Aboriginal site database. All new site locations are shown on Figure 4.10.

The survey also inspected the Whale engraving site at the entrance to the Coal Loader site. This site is the nearest known site to the present study area. It is well known and readily accessible. Its conservation and management needs in the context of the present study are therefore addressed in this report. Another site within Balls Head Reserve is located immediately to the south of the Coal Loader site. This site [NPWS Site # 45-6-1232], containing painted and drawn art, is accessible only at low tide. This and other known sites within Balls Head Reserve and Waverton Park are beyond the scope of this study. The impact of the development of the study area as open space and the increase in visitation and potential adverse impacts this will bring should, however, be considered in the relevant Management Plans for these areas.

4.6.1 BP Site

The survey of the BP site aimed to identify any surviving sites within the industrial complex and any potential buried archaeological deposits.

The site is substantially modified (over 90%) by excavation and/or cut and fill operations (see Figures 4.1–4.4), re-deposition of sandstone material down slope (see Figure 4.5) and along most of the foreshore (see Figure 4.6). Any unevenness of terrain appears to have been levelled by excavation or filled with sandstone rubble. In some areas the rubble fill has been covered by a wire mesh and cemented over. A number of cement platforms or slab foundations and stairways across the site appear to have been constructed over fill or natural sandstone outcrops causing substantial disturbance or damage to the pre-existing sandstone formations either by abrasion or the preparation of natural surfaces or platforms by scabbling for concrete rendering. There is little likelihood of significant or substantial undisturbed buried archaeological deposit or sites surviving in these contexts.

The areas within the BP site retaining some natural sandstone and landform features are restricted to:

1. a cleared area below and to the south of the existing BP site office (see Figures 4.7–4.8). Some of these sandstone boulder outcrops had weathered to form sheltered overhangs. However all overhangs contained rock floors and no soil or potentially artefact bearing deposit had developed within the overhang space. None contained painted or drawn art. The surfaces above the overhangs are largely damaged by machinery and no Aboriginal engraved art was identified.

2. a stretch of the foreshore and talus slope at the northern end of the BP site to the south of Waverton Park. Most of the talus slope contains sandstone and building rubble re-deposited from the excavations and landform modification within the fenced BP site up slope. Two small sandstone overhangs were identified in this area. They contain rock floors and/or recent slope wash deposit. The remnant sandstone formations in this area contain no broad or level platforms suitable for engraving sites. The topography in this area is relatively steep and easy walking access along the foreshore in the more recent past (<5,000 years ago) would have been

restricted to the tidal shore line. There are no flat areas affording suitable locations for open occupation sites or shell middens along this foreshore.

The foreshore along the remainder of the BP site, that is, towards the southern end of the site is substantially reclaimed by fill and sandstone rubble from up slope (see Figure 4.6). The likelihood of significant undisturbed archaeological remains surviving in this area is low. However, the possibility exists that in the area of the relatively sheltered embayment of Berrys Bay in the location of the original Berry's Store and Wharf, archaeological deposit such as open foreshore shell midden deposit may have been buried. Any proposed excavation, remediation works or removal of fill material should consider the possibility of buried Aboriginal archaeological deposit.

4.6.2 Caltex Site

The Caltex site lies to the north of the Coal Loader site and contains a small area of natural bushland on a west-facing slope above a natural foreshore (see Figure 4.9). The area comprises a series of sandstone outcrops above a rocky shoreline. The remainder of the site is largely landscaped, terraced and developed.

Two Aboriginal sheltered occupation sites containing in situ shell midden are located in small overhangs between 8 and 15m above the shore. The surviving midden deposit is limited and both sites are heavily disturbed. Shell material from both sites are scattered over the talus slope below the overhangs. Both show evidence of European occupation. Access to both sites is gained via narrow tracks along the talus slope or from above. Neither of the sites have sufficient level space in front of the floor deposit to allow inspection without walking on the actual deposit.

C 1 is located approximately 35m south of the northern Caltex perimeter fence along HMAS Waterhen Road (see Figure 4.11). The site is an overhang measuring 10m in length by 2.4m high by 3.8m deep, about 15m above the shoreline. The overhang is fire blackened and honeycomb weathered.

In situ shell midden occurs over an area of 1.2m x 0.7m located at the southern end of the overhang at the rear of a rock slab (see Figure 4.12). The deposit contains Sydney rock oyster and *Trichomya hirsuta* (hairy mussel) in a grey sandy matrix. The remaining deposit is protected by the rock slab and it is likely more shell deposit was previously located throughout the overhang but has suffered ongoing natural attrition and more recent disturbance. No other Aboriginal cultural items were observed. The floor of the overhang drops away sharply immediately beyond the drip line and further shell is scattered outside the overhang at the southern end, down slope to the shoreline.

European evidence of occupation and disturbance includes a recent sandstone cobble fireplace, carpet and plastic debris and some graffiti on the roof and rear wall.

C 2 is located approximately 55m south of the northern Caltex site perimeter fence along HMAS Waterhen Road in an overhang measuring 8m in length x 2.2m deep x 1.45m in height (see Figure 4.13). The northern end of the shelter is partially obscured by coal wash.

Midden deposit measuring 3.1m x 2.1m is located at the southern end of the overhang under a rock slab (see Figure 4.14). Shell consists of Sydney rock oyster and hairy mussel. No stone artefacts were observed. The roof and walls are largely fire blackened from recent fires. No art was observed. Considerable quantities of shell are scattered down slope at the southern end of the shelter.

European disturbances include a brick semi-circular fireplace, a letterbox, roof tiles, fence paling, pottery, glass and newspaper (see Figure 4.15). Phil Mulvey has suggested some of these remains may date to the Great Depression. [22] If this can be shown to be the case it has considerable interpretative value.

A dolerite ground and worked hatchet was located and collected at low tide on a rock bar immediately adjacent to the foreshore of the Caltex site. This artefact has been identified by the Australian Museum as Aboriginal. It has residual gum from a hafting process. It is illustrated in Figure 4.25. The Metropolitan Local Aboriginal Land Council is keen to see this artefact used in an appropriate interpretive display.

4.6.3 Coal Loader Site

The Aboriginal site survey of the Coal Loader site found few areas of original topography or natural landform in which Aboriginal sites could be expected to be located and or to have survived the industrial development. The sandstone formations over most of the site have been quarried to supply building material for the industrial components of the Coal Loader, retaining walls on site and along the foreshore and storage reservoirs. A pocket of bushland remains at the southern end of the site to the south of the main quarry face (see Figure 4.16). This area is generally sloping and contains fill and coal refuse along the lower portions within the foreshore retaining wall. A narrow strip of the original sandstone remains along the spine of the Peninsula immediately within the site eastern boundary fence (see Figure 4.17). No sites were located in these areas. A portion of a natural outcrop is located in the northern portion of the site. The outcrop has been partially excavated to form the two bunker fuel reservoirs and the upper elevations have been terraced or built on. An overhang and a portion of the platform above it are located immediately below the Coal Loader residence and timber patio. The overhang may have contained shell midden deposit (see below).

Site Descriptions

CL 1 is the remains of a disturbed shell midden site located adjacent to the overhang below the Coal Loader residence (see Figure 4.18). The floor of the overhang has been excavated away to form the

wall of the southern bunker fuel reservoir. Immediately adjacent to the overhang and down slope along the northern edge of the fuel reservoir the disturbed slope deposits contain scattered and fragmented shell (see Figure 4.19). These shell scatters may be derived from the overhang which were redeposited during excavation or by natural erosion. The size range and species selectivity indicate a cultural origin. The scatters are generally diffuse and are unlikely to be stratified. Test excavation would be required to determine if any in situ deposit remains in this area. Shellfish species represented include *Anadara trapezia, Pyrazus ebeninus* and Sydney rock oyster. No stone artefacts were observed.

A relatively level platform above the overhang (see Figure 4.20) was inspected for engravings. None were identified. The surfaces have been damaged by machinery and are generally uneven.

NPWS Site # 45-6-0026 is an engraving site located at the entrance to the Coal Loader site. The site is situated on a level sandstone platform between Balls Head Road and the eastern boundary of the Coal Loader (see Figure 4.21). The site has been variously reported on and described since first sketched by JF Mann in 1843. The site as originally recorded comprised: a large figure of a whale enclosing a male figure; two other male figures, one to the northwest of the tail of the whale and the other to the south of the whale; seven fish; and, about 45 feet south of the whale, four fish. Subsequent recordings have identified additional motifs at the site and noted the disappearance of some of the site elements. Campbell recorded the site in 1899 (see Figure 4.22) and described the site partly based on Mann's observations. In 1963 Rosemary Taplin, an amateur recorder, recorded this site and made some polythene tracings of elements at the site. Her recordings showed the various site elements relative to the Coal Loader road and the stone wall of the Coal Loader adjacent to the road. Copies of her recordings are held by North Sydney Council (see Figure 4.23). Her recordings identified all the previously recorded elements plus an additional male figure within the whale and two additional male figures on the northern side of the whale. Taplin's recording identified a total of eighteen figures. In 1977 M Guider filled in an NPWS Standard Site Form and made reference to Taplin's work. However, he mentions a total of only seventeen figures being present despite describing an additional boomerang and three mundoes on the south side of the whale which he, himself apparently identified and which were not part of any of the previous recordings.

At present the whale figure and the two enclosed male figures are enclosed by a painted wooden fence (see Figure 4.24) on the edge of the Coal Loader road and some of the motif outlines have been panted white. The fence is shown on a photograph of the site dated 1951 (see Figure 4.10). After rain the lower portions of the whale and enclosed figures lie under water. All other elements lie outside the fence. The two male figures identified by Taplin to the north of the whale are obscured by vegetation. The male figure and seven fish to the west of the tail of the whale apparently lie under the Coal Loader road. The four fish located 45 feet south of the whale either lie under the Coal Loader road or Balls Head Road. The male figure to the south of the whale and the additional [described by Guider] boomerang and three mundoes to the south of the whale are likely to be under vegetation.

It is possible that not all the elements of this site have been identified. The site is of recognised significance to the Aboriginal and scientific and local communities. It is recommended that site remediation works include the removal of the fence and paint, creation of effective drainage, removal of vegetation and road surfaces to expose the known elements of the site and determine whether previously unrecorded elements are present.

Figure 4.1
The BP site, southwest corner, showing the extent of cut and fill activity.

Figure 4.2
BP site, northeastern section, showing large fuel tank cutting and bushland link to Waverton Park to the north.

Figure 4.3
BP site. Remnant midden may exist beneath filled areas at the southern end of the site.

Figure 4.4
BP site. Small areas of original topography, including rock shelves exist on the BP site. No Aboriginal sites are evident.

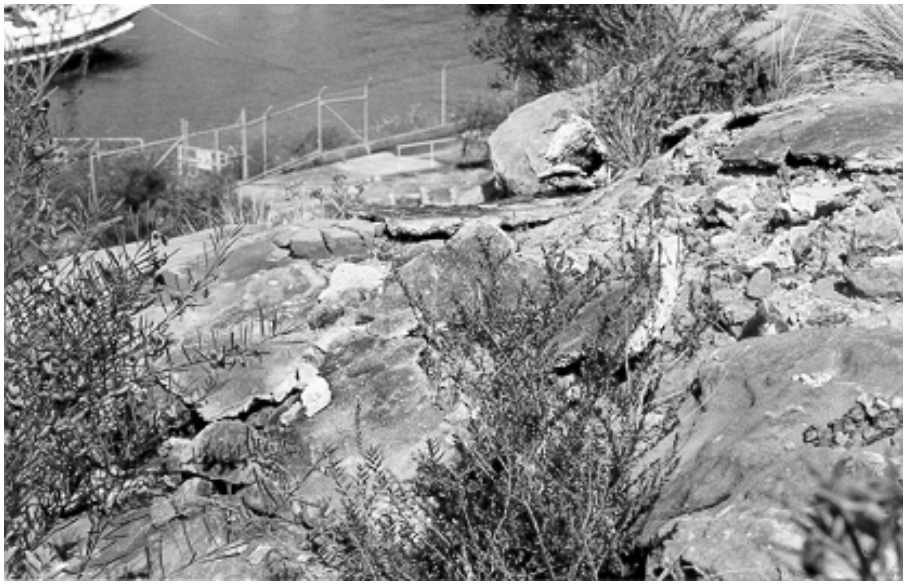


Figure 4.5
BP site. While some natural rock surfaces are present, most have been disturbed by cut and fill activities.

Figure 4.6
The BP site foreshore is substantially modified by land reclamation and stabilisation works.

Figure 4.7
Remnant natural landform remains in small areas of the BP site.

Figure 4.8
BP site looking southwest at remnant sandstone topography and twentieth-century concrete retaining wall.

Figure 4.9
Foreshore and bush at Caltex site, looking northeast.

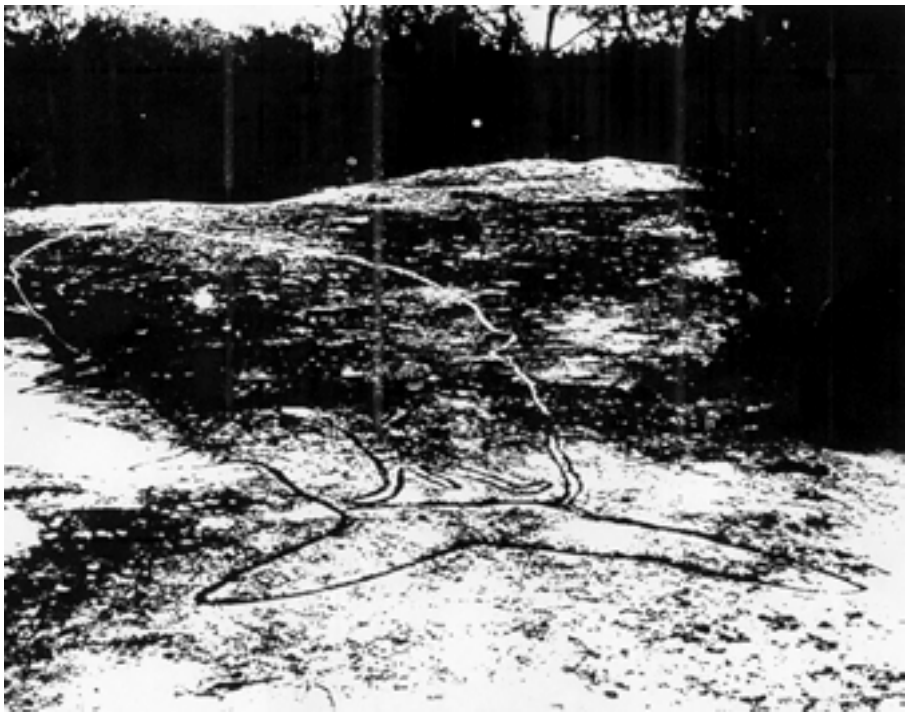


Figure 4.10
Undated photograph showing whale engraving. Another photograph in the same collection shows a white wooden fence surrounding the engraving. This photograph is dated 1957, hence it is assumed that the photograph reproduced here is prior to 1957 as it does not show the fence. (From the Stanton Library Photographic Collection PF 149.)

Figure 4.11
C1: sheltered occupation site, looking north.

Figure 4.12
C1: detail shell midden deposit.

Figure 4.13
C2: sheltered occupation site, looking northeast.

Figure 4.14
C2: detail of in situ midden.

Figure 4.15
Detail of European disturbance.

Figure 4.16
Southern corner of Coal Loader site, with small pocket of remaining bushland (largely regrowth).

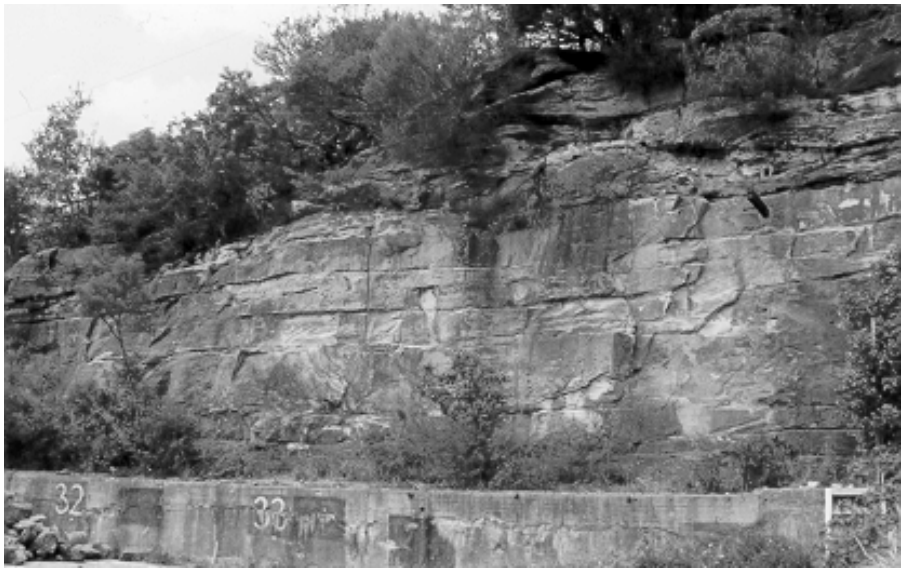


Figure 4.17
Quarry face above Coal Loader platform.

Figure 4.18
Shell midden site CL1 under Coal Loader residence.

Figure 4.19
Shell Scatter at CL1 downslope of overhang.

Figure 4.20
Sandstone surfaces below timber patio of Coal Loader residence.

Figure 4.21
NPWS site # 45-6-0026 site location and context.

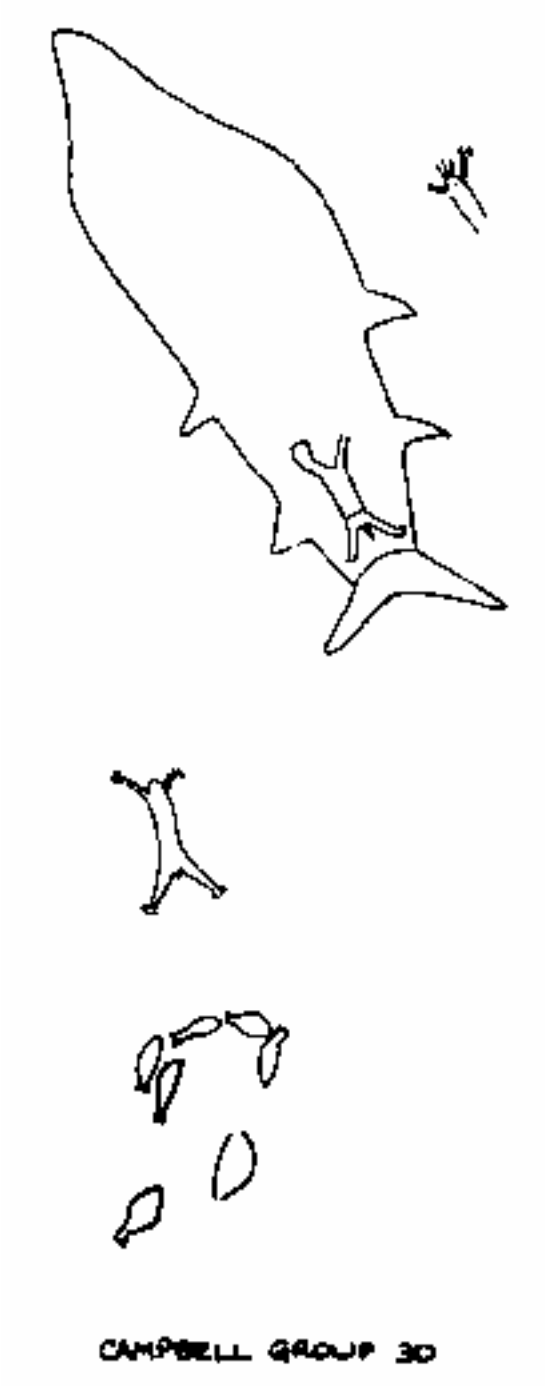


Figure 4.22 National Parks and Wildlife Service Site # 45-6-0026, Campbell's 1899 recording.

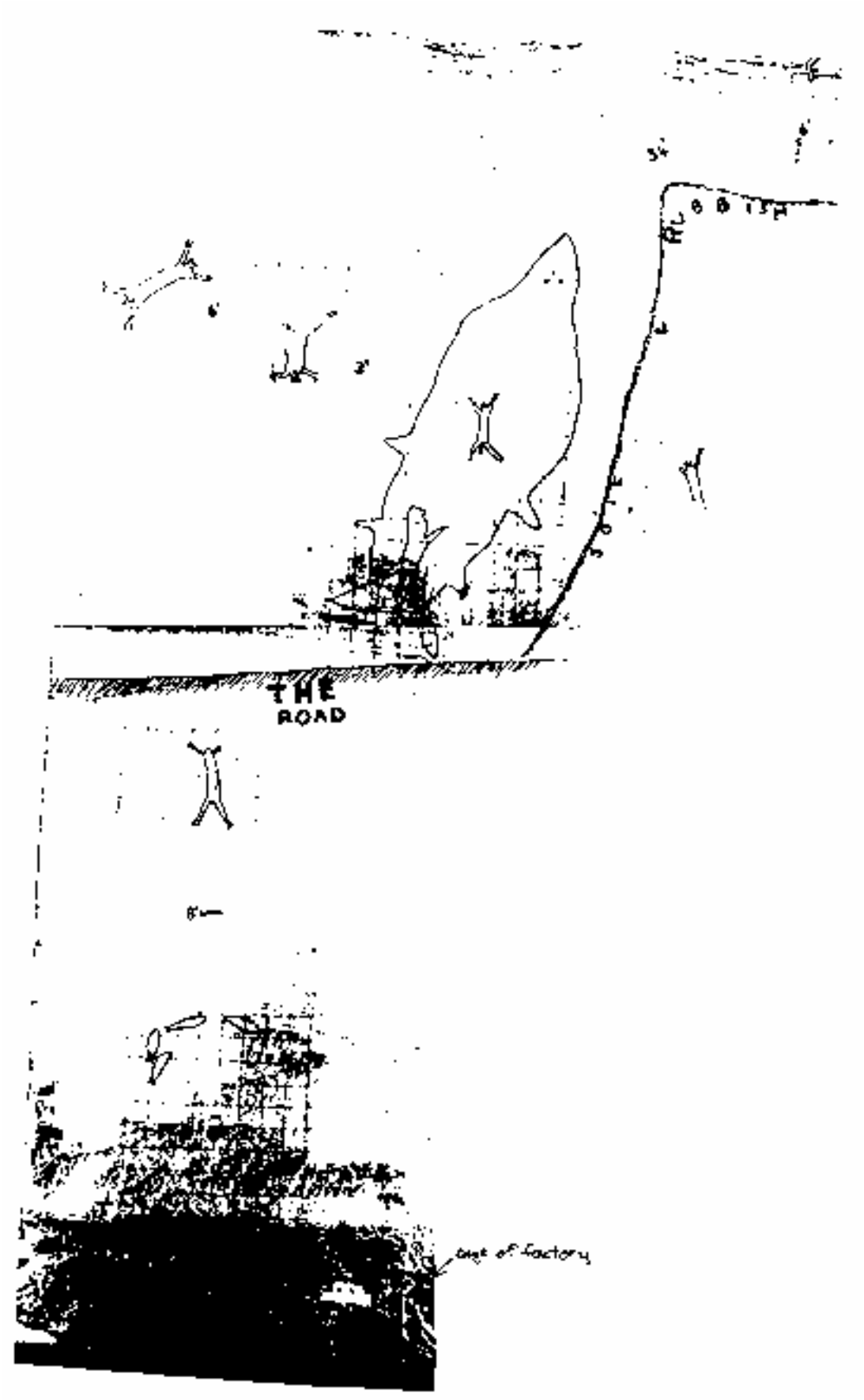


Figure 4.23 Taplin's 1963 recording.

Figure 4.24 Fenced portion of NPWS site # 45-6-0026.

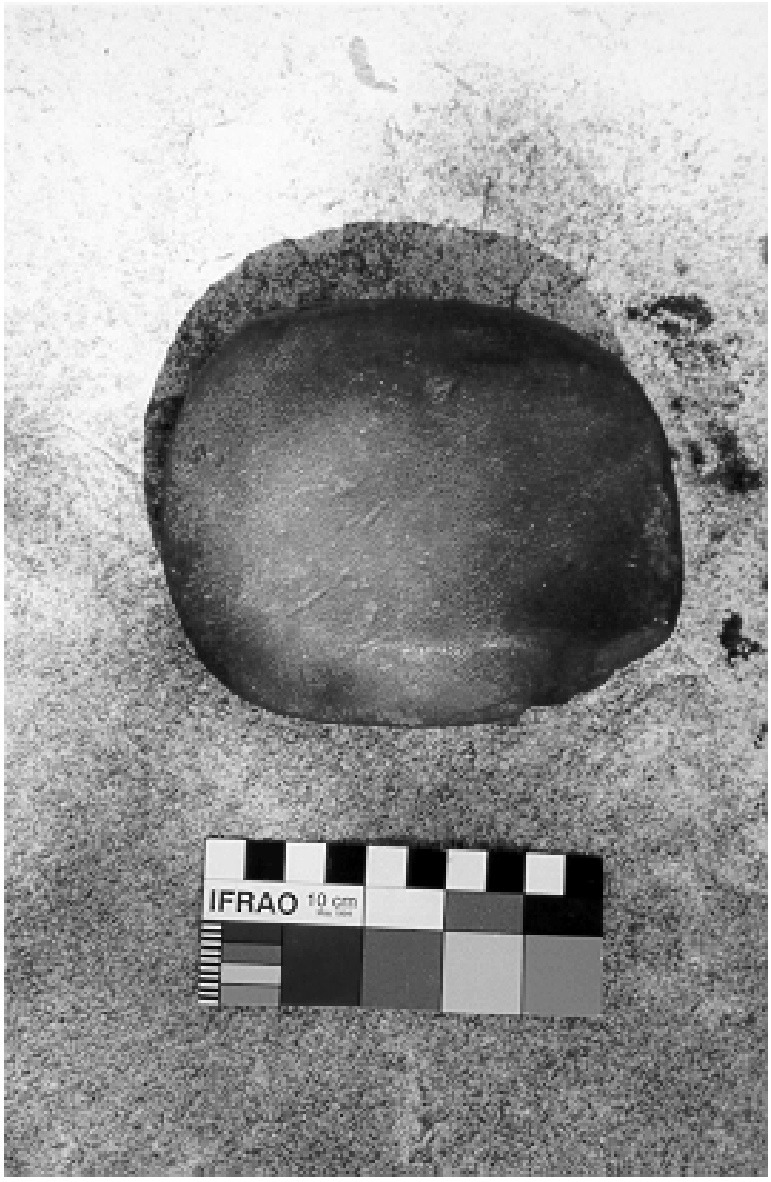


Figure 4.25 Ground hatchet recovered from shoreline adjacent to Caltex site.

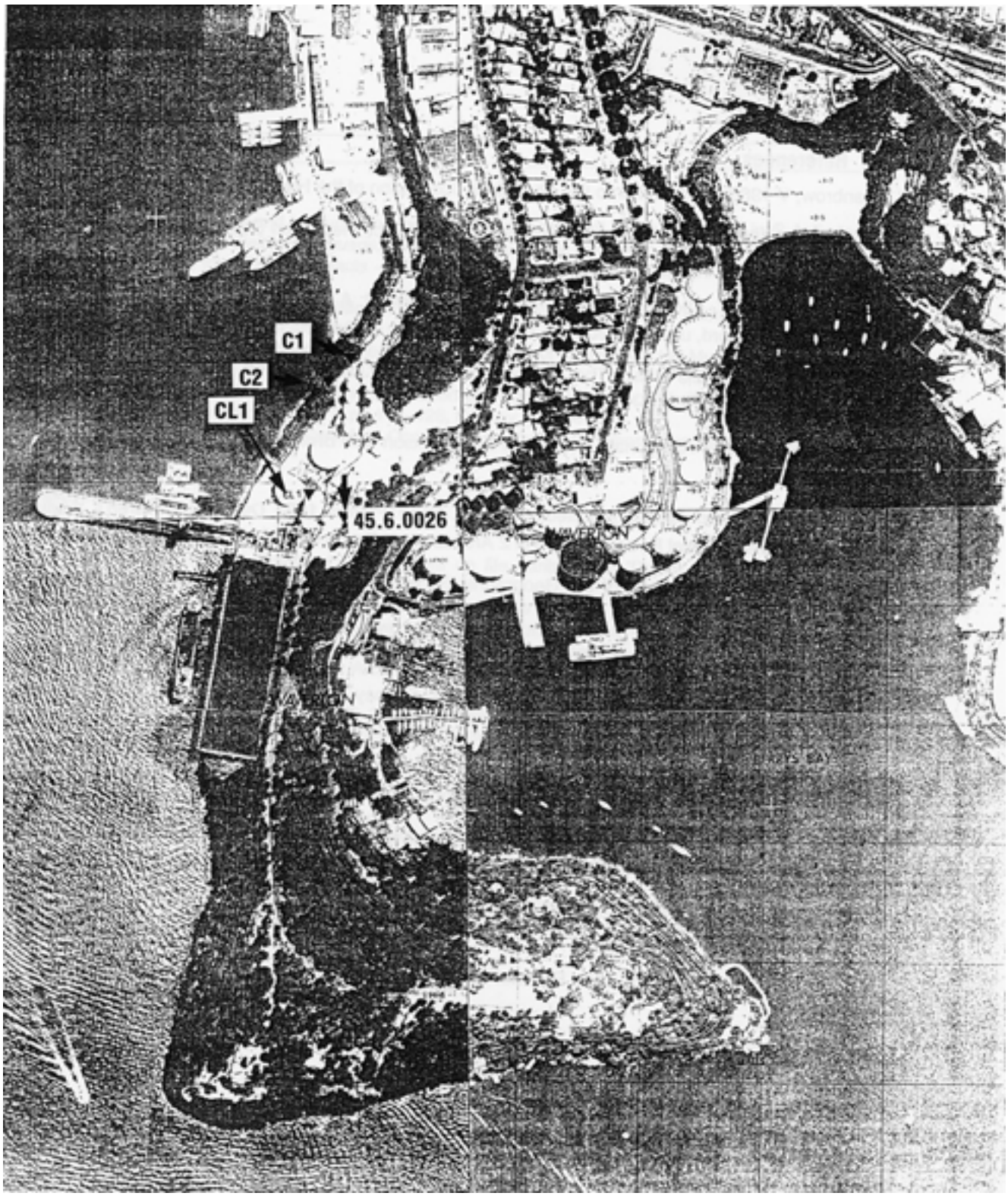


Figure 4.26 Aerial view indicating location of known Aboriginal sites.

4.7 References

Attenbrow, V 1988, 'Research into the Aboriginal Occupation of the Hunters Hill Municipality'.

Attenbrow, V 1990, The Port Jackson Archaeological project: Report on Stage 1, unpublished report to AIATSIS and LALCs.

Attenbrow, VJ 1987, The Upper Mangrove Creek Catchment: A study of quantitative changes in the archaeological record, unpublished PhD Thesis, University of Sydney.

Bowdler, S 1971, Balls Head: The Excavation of a Port Jackson Rock Shelter, Records of the Australian Museum, 28: 117–128.

Campbell, WD 1899, Aboriginal Carvings of Port Jackson and Broken Bay, Mem of the Geological Survey of NSW.

Godden Mackay and Austral Archaeology 1997, POW Project 1995 Destitute Children's Asylum Cemetery Archaeological Investigation, Vol 2 Archaeology, Part 3 Aboriginal Archaeology.

Mann, JF 1885, Proceedings of the Geographic Society of Australia [NSW and Vic Branches] for 1883–84.

Martin, Megan, Ryde: Aboriginal Occupation, an unpublished manuscript

McCarthy, FD 1983, Catalogue of the Rock of the Sydney – Hawkesbury District NSW, 2 Vols, National Parks and Wildlife Service.

McDonald , J 1994, Dreamtime Superhighway: An Analysis of Sydney Basin Rock Art and Prehistoric Information Exchange, PhD thesis, Australian National University, 2 Vols.

McDonald, J 1992, The Archaeology of the Angophora Reserve Rock Shelter, Environmental Heritage Monograph Series No. 1, NSW NPWS.

Miles, D 1964, 'Preliminary Comments on Balls Head archaeological excavation', *Australian Natural History* 14.

National Parks & Wildlife Service Register of Aboriginal Sites and Catalogue of Archaeological Reports.

Ross, Anne 1976, Inter-Tribal Contacts – What the First Fleet Saw, BA Honours Thesis, University of Sydney.

Ross, Anne 1988, 'Tribal and Linguistic boundaries: A reassessment of the evidence', in G Aplin (ed) *A Difficult Infant: Sydney Before Macquarie*, NSW University Press, Sydney.

4.8 Endnotes

[1] Ross, Anne 1988, 'Tribal and Linguistic boundaries: A reassessment of the evidence', in G Aplin (ed) *A Difficult Infant: Sydney Before Macquarie*, NSW University Press, Sydney, p 42.
[2] Ross, Anne 1976, Inter-Tribal Contacts – What the First Fleet Saw, BA Honours Thesis, University of Sydney, p 3.
[3] Governor Phillip to the Colonial Office, February 1790, quoted in Megan Martin, Ryde: Aboriginal Occupation, an unpublished manuscript.
[4] Attenbrow, V 1988, 'Research into the Aboriginal Occupation of the Hunters Hill Municipality', pp 80–87.
[5] Ross 1976, op cit, citing Capell.
[6] Bowdler, Sandra 1971, Balls Head: The Excavation of a Port Jackson Rock Shelter, from the Records of the Australian Museum Vol 28, No. 7, pp 117–128, Sydney, pp 124–125.
[7] Szpak, Cheryl, Draft Copy of Aboriginal Occupation of the North Shore, the North Shore Historical Society, 1997, p 29.
[8] ibid.
[9] ibid, p 32.
[10] ibid.
[11] ibid.
[12] Local Studies Collection, Stanton Library. Note on file attributed to 'Doctor Agnes Bennett' and C Manson, 1960, p 11.
[13] Mann, LF 1932, 'Early Neutral Bay', *RAHSJ* Vol XVIII, Part IV.
[14] Attenbrow, VJ 1987, The Upper Mangrove Creek Catchment: A study of quantitative changes in the archaeological record, unpublished PhD Thesis, University of Sydney.
[15] Attenbrow, V 1990, The Port Jackson Archaeological project: Report on Stage 1, unpublished report to AIATSIS and LALCs
[16] Miles, D 1964, Preliminary Comments on Balls Head archaeological excavation, *Australian Natural History* 14, and Bowdler, S 1971, Balls Head: The Excavation of a Port Jackson Rock Shelter. Records of the Australian Museum, 28: 117–128.
[17] Mulvey, Philip, pers comm.
[18] Attenbrow, Val, pers comm.
[19] Gojak, Dennis, recording: NPWS Register.
[20] McDonald, J 1994, Dreamtime Superhighway: An Analysis of Sydney Basin Rock Art and Prehistoric information Exchange, PhD thesis, Australian National University, 2 Vols, pp 55–57.
[21] Angas 1847, cited in McDonald 1994, op cit.
[22] Mulvey, P, op cit. Ross, Anne 1988, 'Tribal and Linguistic boundaries: A reassessment of the evidence', in G Aplin (ed) *A Difficult Infant: Sydney Before Macquarie*, NSW University Press, p 42

5.0 Historical Overview

5.1 Early History 1835–1900

The study site on Waverton Peninsula sits within what was once part of Alexander Berry's north shore estate. Alexander Berry, a former naval surgeon turned merchant, had arrived in New South Wales via Van Diemen's Land in 1808, aboard his ship *City of Edinburgh* with a cargo of spirits. He left Sydney at the end of 1809 bound for Cape Town with a cargo of hardwood, eventually returning to the colony in 1819 with his new partner Edward Wollstonecraft. In 1812 the *City of Edinburgh* sunk in the Atlantic and Berry had met Wollstonecraft while travelling back from Cadiz. Wollstonecraft, who was the cousin of Mary Wollstonecraft Godwin, creator of *Frankenstein*, became Berry's agent and later his partner.

Berry and Wollstonecraft arrived together in Sydney in 1819 to start a business as general merchants, with Wollstonecraft managing the Sydney side of affairs from an office in George Street while Berry sailed back and forth to England buying and selling goods. When in Sydney, the partners' ships would moor in the area later named Berrys Bay. In the early 1820s Wollstonecraft received a grant of 500 acres on the North Shore, building a stone cottage which he named Crows Nest, with a wharf in the vicinity of present-day Wood Street.[1] It is within this grant that the study site is situated.

Berry returned to the colony in 1821, on a vessel charted to bring out the new Governor, Thomas Brisbane. Brisbane granted Berry and Wollstonecraft 10,000 acres on the Shoalhaven River, which was cleared for timber and then cultivated, growing crops for the Sydney market. By 1828 the partners held 30,000 acres in Shoalhaven of which 1,200 were cleared and 650 cultivated. The property also ran forty-eight horses, 1,200 cattle and 200 pigs. Ten years later, in 1835, Berry reported that his Shoalhaven land now held 3,000 cattle, 10,000 sheep and 150 horses.[2]

In 1827 Berry married Wollstonecraft's sister Elizabeth, cementing his partnership with Wollstonecraft in the process.

In 1824 Berry and Wollstonecraft had a sloop built to transport their produce from Shoalhaven to Sydney, where it was unloaded at the wharf in Berrys Bay, close to present day Wood Street. In 1829 Berry suggested to Wollstonecraft that they transfer their business to the Crows Nest property, building a new stone wharf and stone storehouse, as well as accommodation for their clerk. They could close their George Street office and could easily travel to town if necessary and use a friend's house if required. Using convict labour a stone wharf and a stone warehouse of four floors had been constructed on the site by 1835, with a stone cottage sited between them (see Figure 5.1).[3] In a letter to his brother in Scotland, Berry described the warehouse as being 'Four floors for my produce, 60 feet long in the clear and 26 feet broad with walls three feet thick'.[4] The store had fourteen windows in three rows facing south, a pitched roof of shingles and openings to all four floors at the eastern end.

The cottage that was adjacent to the old store was the office and dwelling of Berry's Clerk and General Manager, William George Mathews. Mathews was employed by Berry in 1834 and lived in the cottage until 1854, when a new stone house was constructed for him further to the north at the mid-section of the neck of land which leads to Balls Head. The second cottage was constructed of timber with stone foundations and a brick chimney, the stone being quarried on site.[5] The cottage consisted of three rooms and a kitchen, with a shingled roof, a verandah facing the Bay and a smaller one to the rear. Two wells were close by the store on the eastern side of the roadway. There was also a stable between the store and the first cottage, which Mathews sometimes used.[6]

In December 1832 Edward Wollstonecraft died after a long illness. Following his death his sister Elizabeth inherited his land with Berry serving as his executor.

Following Wollstonecraft's death, Berry continued to operate the Shoalhaven properties, producing hay, maize, wheat, bran, butter, beef, tallow, lamb, wool, potatoes and timber. The produce was brought to Sydney aboard Berry's two vessels, the *Edward* and the *Union*, with others hired if needed.

5.2 1853–1906 Alternative Uses

In 1853 Berry leased the site including the wharf and most of the store space for £350 per annum to the P & O Company and the General Steam Screw Ship Company as a coaling depot. Each of these shipping companies began running steamers to Australia from England in the early 1850s, taking advantage of the high demand for goods in Sydney and the relatively low availability of reliable long distance steam ships at the time. As the ships were reliant on large amounts of coal to power their engines, both companies stockpiled coal on Berry's property for use by their steamships. However this arrangement lasted less then two years, although the bay was used for ship repairs.

To the east of the storehouse a quarry had been cut, from which the stone for Mathew's 1853 cottage came. The shoreline in this section was also straightened at some stage, with approximately an acre being recovered.[7] The wharf and area adjacent was also used at one stage for the storage of ballast. A Mr AB Black rented the site for such a purpose in the mid 1880s.

Between 1872 and the late 1880s a distillery was also operating from the stone store. Operated by a Mr Meyer, the copper stills for the brewing were placed on the ground floor of the store, which he also lined with an asphalt floor replacing the original wooden one. In 1873 the distillery was put up for sale and a company called the Rag and Famish was negotiating for the site. The company was proposing to erect a large public house of the same name in the centre of North Sydney, which would have been the second by that name in the suburb (the first, which still exists, was erected in 1874).[8]

Alexander Berry died in 1873 and David Berry, his brother, managed his property in Sydney. After fifty years the bulk of the Sydney Estate remained intact, despite increasing pressure for land in Sydney seeing most of the other large estate having been broken up (see Figure 5.2). The Crows

Nest farm had never been noted as being a particularly productive estate and its prime waterside position would suggest that any subdivision of the land would have proved to be profitable. However, Alexander Berry, and later David Berry, wished to hold on to control of the land by insisting that it be leased rather than sold. This way they could sell it later when prices were more favourable.[9] Berry had also been involved in a long running campaign against the formation of local government in North Sydney and Shoalhaven. He argued that votes for local council should be like those for a joint stock company, with the number of votes dependent on the value of property held. This idea was not at all popular in what the people of Sydney liked to see as a largely egalitarian society, especially coming from a wealthy landholder who had received much of his land for nothing. Although powerful, Alexander Berry's feudal ideas concerning property and those in his employment had not made him the most popular landholder in the colony.

5.3 The NSW Torpedo Corps and Subdivision of the Berry Estate

From October 1877, following Berrys death, most of the shore facilities were leased to the newly formed NSW Torpedo Corps as a depot. The NSW Torpedo Corps operated as part of the defence of Sydney from Berrys Bay from 1877 to 1889 when they were removed to Middle Head. The Corps had use of two fast steam torpedo boats, the *Acheron* and *Avernus,* which were designed to intercept any hostile ships entering the harbour. When war with Russia seemed a likely proposal during 1885, the Corps increased its operations in the Bay, constructing workshops, a packing room, a hydraulic testing house and an office. The site was surrounded by a paling fence that also enclosed a hold store which had been erected sometime around 1878.[10]

The rental on the property was increased after the first year of occupancy from £150 per annum to £500 paid quarterly. The Torpedo Depot Storeman, William Proctor, lived in the stores cottage on site, but had a poor relationship with Berry's clerk, Mathews. Mathews accused Proctor of allowing his poultry to foul up one of the wells on site and of seeking his removal as Proctor coveted Mathews' house. Matthews also alleged that Proctor had set one of his horses loose so as it had to be retrieved from the police pound.[11] A severe storm in May 1889 destroyed some of the Corps property, including all the fences and a smaller boatshed. At the end of the year the Corps vacated the site, although their slipway remained in use and was still in situ in 1998. During the same period, the 1890s, Woodley's boatbuilders established a yard to the south of the study site.

In the same year that the Corps moved from Berrys Bay, the sole remaining member of Alexander Berry's immediate family, David, also died. David Berry had been managing the Berry Estates with the help of his cousin John Hay. The property was transferred to Hay, except for a number of legacies that were to be paid from the estate. To cover the costs, Hay advertised the Berry Estate for sale from February 1895, dividing it into thirteen blocks (see Figure 5.4). The land was initially offered for leasehold which, along with its isolation from the ferry terminal at Milsons Point, made it unpopular with the public.[12]

In 1906, an agreement was reached between the State Government and the Berry Estate, exchanging the foreshore land for the construction of a thirty bed hospital in the town of Berry, within the Shoalhaven estate. Now in control of the estate, the state government was confronted with the problem of how to gain the highest return for the land. The Government was approached by an English company wanting to develop the site for industrial use. The company wanted to duplicate Darling Harbour, building wharves and a manufacturing complex on the site. However, the government was hesitant to grant the desired 99 year lease and the proposal lapsed. The lack of access to the railway was another factor that made the site less attractive to investors.

5.4 BP Storage Site

The start date for the development of the oil storage terminal in Berrys Bay is not clear. Two dates of commencement are given, 1908 and 1920, with 1920 being the preferred option. The first occupant was the Anglo-Persian Oil Company, who purchased land at Berrys Bay in 1922 and installed their first storage tank in 1923.[13] The tank, with a capacity of 10,000 gallons, was constructed in England, disassembled and then reconstructed on the site for a cost of £23,000. The site was leased by the Anglo-Persian Oil Company to Commonwealth Oil Refineries Ltd (COR) who were setting up a refinery at Laverton, Victoria.

In 1936 COR demolished Berry's stone store to make way for more storage tanks. The three-storey store was still in good condition, with faced ashlar stonework, hardwood doors and the internal fittings made mainly of cedar. During the dismantling it was also commented that all the stones had convict marks upon them. The stones of the warehouse were reused by COR to construct a bund wall to aid in the prevention of any possible spillage on the site. The COR magazine, 'The Accelerator' noted that the stone was reused 'so that a certain amount of historical interest will still be retained'[14] (see Figures 5.6–5.8). The wall still remains on site.

By 1939 there were eleven tanks, which had been constructed over several stages between 1926 and 1937.

In 1952 the Anglo-Iranian (formerly Anglo-Persian) Oil Company bought the Government's share in COR. As the company's interests grew, the Berrys Bay site expanded. Between 1956 to 1967 more tanks were constructed on the site including a double line of black-painted tanks along Unnecessary Road, which was an intended extension of Rose Street. By 1967 there were thirty-one tanks on the site, which was now operated by the Anglo-Iranian parent company British Petroleum, then BP Australia. In 1959 two adjoining houses were purchased to house the site manager and other staff.

From 1994 the site began to close up and be sold off. The two houses were sold first, after which the site was slowly dismantled. The tanks were taken away in 1996 leaving only the gouged-out cliffs to show where the larger ones had stood.

5.5 The Balls Head Coal Loader

While the Persian Oil Company took up the eastern portion of the former Berry Estate, the western portion was leased to the Sydney Coal Bunkering Company. The Sydney Coal Bunkering Company, a subsidiary of the Union Steam Ship Company of New Zealand, negotiated a 35-year lease from the Government in three separate sections. The original lease was for a parcel equalling 2 acres 1 rood 26 perches, for 35 years from 1 October 1913. Following this, on 1 October 1917, the Company added a further 2 roods 2 perches, leased for 30 years, and then on 1 October 1918 leased a further 1 acre 1 rood 13 perches for 30 years. The three leases make up the site of the Coal Loading facility along the western shoreline of the Balls Head peninsula (see Figure 5.10).

The Coal Loading facility was built mainly to serve the coal bunkering needs of the passenger and cargo ships of the Union Steam Ship Company. Work began on the construction of the coal loader in 1917, with extensive clearing of bush and stone quarrying to level the site. A 1919 report on the construction of the facility explained the process of construction:

> *Extraordinary difficulties have been encountered, and are being overcome. In the first place, the Balls Head was anticipated to have a solid rock basis for the necessary tunnelling. It has turned out otherwise, and an amazing amount of packing and concrete facing has had to be done. Stone quarried at a considerable distance and carted to make up the deficiencies of nature.*[15]

The stone was used to build up the facing around the water and around the entrances to four tunnels driven into the cliff (see Figure 5.13). The work, while seen by some as a great leap forward for the city in terms of industry, was lamented by others who mourned the loss of Sydney's natural environment. Henry Lawson was inspired to write in protest on the subject in his poem 'The Sacrifice of Balls Head',

> *They're taking it, the shipping push,*
> *As all the rest must go*
> *The only spot of cliff and bush*
> *That harbour people know,*
> *The spirit of the past is dead,*
> *North Sydney has no soul*
> *The State is cutting down Balls Head*
> *To make a wharf for coal*[16]

With the land prepared, a wharf was built into Balls Head Bay between 1918 and 1920. Designed and built by the joint engineers F Ernest Stowe and Kay Macnichol Coy, the wharf measured 169.8m long by 18.7m wide, consisting of timber piles driven into the harbour bed with cross bracing for lateral support and a timber decking.[17] With the completion of the wharf, work could begin on the coal loading facility with the erection of an electric powered cable railway in 1920.

Prior to the cable railway, coal was loaded onto ships by hand and winches, which employed a large workforce to make the job viable. According to Bellambi Coal Company records, their small colliers

would steam directly from their Illawarra colliery jetty to the steamers side in Sydney Harbour. Once rigged up to the ship, planks would be laid between the two vessels, with the plank ends supported well above the collier's deck to keep them level. Baskets would then be attached to the masts' hoists and the bunkering process would begin. The collier men would shovel coal into the buckets that were then winched up the mast to the platform above. From here the buckets were heaved over to the waiting ship, where the coal was emptied into chutes that delivered the coal into the bunkers below deck. Five plank gangs could deliver approximately 100 tons per hour in good weather.[18]

The cable railway was started in 1920 by Mead Morrison of Chicago, USA, and designed to deliver 700 tons of coal per hour. With the Coal Loader in operation, coal could be transferred directly from stockpile into the ships bunkers, via a system of two tunnels, chutes, travelling coal hoppers, an elevated railway on the jetty and two travelling elevator delivery gantries. Thirty-three hoppers were situated within tunnels below the coal stockpile, with the cable railway hauling them along the elevated track on the wharf.[19]

The delivery of coal to the waiting ships was a highly mechanised process. The delivery gantries could be positioned alongside the receiving ship's bunker chutes. As the coal wagon approached, a trip on the gantry would trigger the coal wagon to tip its coal into the receiving hopper under the track attached to the elevator gantry. The empty wagon would proceed to the end of the track where it turned on a balloon loop and was diverted back along a parallel track toward the tunnels beneath the stockpile. On this return, a second trip would close the wagon's flaps, allowing it to fill with coal again automatically. And so the process would continue. The cable speed was three miles per hour, which allowed each wagon to cover the route of the railway five times per hour (see Figure 5.15). [20]

In 1934 the Coal Loader was taken over by the Wallarah Coal Company who continued operating the facility until 1957 when J & A Brown and Abermain Seaham Colliers became the controlling company. In 1960 J & A Brown became a subsidiary of Coal & Allied Industries. The Wallarah Coal Company operated the Catherine Hill Bay Colliery south of Newcastle, which supplied much of the coal to Balls Head. A severe storm in 1937 damaged one of the two gantry unloading cranes over the storage bins, leaving only one unit in operation until this was replaced in 1956 with a new large, single unloading grab crane.[21]

The Coal Loader was taken out of service in 1964 and remained dormant until 1974 when it was recommissioned as a coal export facility. During this time, six staff were kept on site doing maintenance work and associated work with the Coal Loader. The original facility was used at the recommissioned site until 1976 when it was replaced with a new conveyor system. The 1976 system consisted of remote-controlled bin gates, travelling feeders, reclaim conveyors, two wharf conveyors and a travelling ship loader. The twin conveyors had a capacity of 2000 tonnes per hour. The system used tunnels No. 2 and No. 3 at Balls Head, while the original system had used tunnels No.1 and No. 2.

The rejuvenated coal export facility continued to operate until 21 May 1992, when the *Sunny Success* was the last ship to be loaded. With the lapse of the operating licence, the Government did not renew the lease and the plant closed.[22] The existing leaseholder is Rio Tinto, who are in negotiation for vacating the site.

5.6 The Caltex Site

A newspaper article announcing the construction of the new coal bunkering system being installed in Balls Head Bay makes mention of the proposed construction of oil reserves adjacent to the site as well. The oil reservoirs were to service those ships that burnt liquid fuel instead of coal. With an estimated cost of some £300,000, the plant would mean that any ship type could be refuelled at the facility.[23]

In c1953 Golden Fleece, the Australian-owned petroleum company, established a lubricating oil bulk storage installation at Balls Head Bay.[24] It is uncertain whether they constructed the tanks or whether they were already standing at the time.

Golden Fleece had been established by the Melbourne-based shipping agent and general merchant Harold C Sleigh in 1913, when he took a shipment of California motor spirit and marketed it in Victoria. By 1929 his business had expanded enough to warrant the establishment of bulk oil terminals in Melbourne, Sydney and Adelaide. In 1933 Harold Sleigh died and his company passed into the hands of his son, Hamilton Sleigh.

Golden Fleece was formed as a public company in 1947 and, in partnership with Caltex and Ampol, proposed the construction of a plant at Kurnell for manufacturing lubricating oil in 1959. In 1981 Caltex purchased Golden Fleece outright for $75.2 million. Caltex merged with Ampol in 1995.

The oil reservoirs were filled from tankers moored at the jetty via a pipe attached to the onshore pipeline network. The oil was pumped into the tanks from here. To refuel a ship, the pipeline was used in reverse with the pump transferring the oil from the reservoirs to the ship's bunkering tanks.

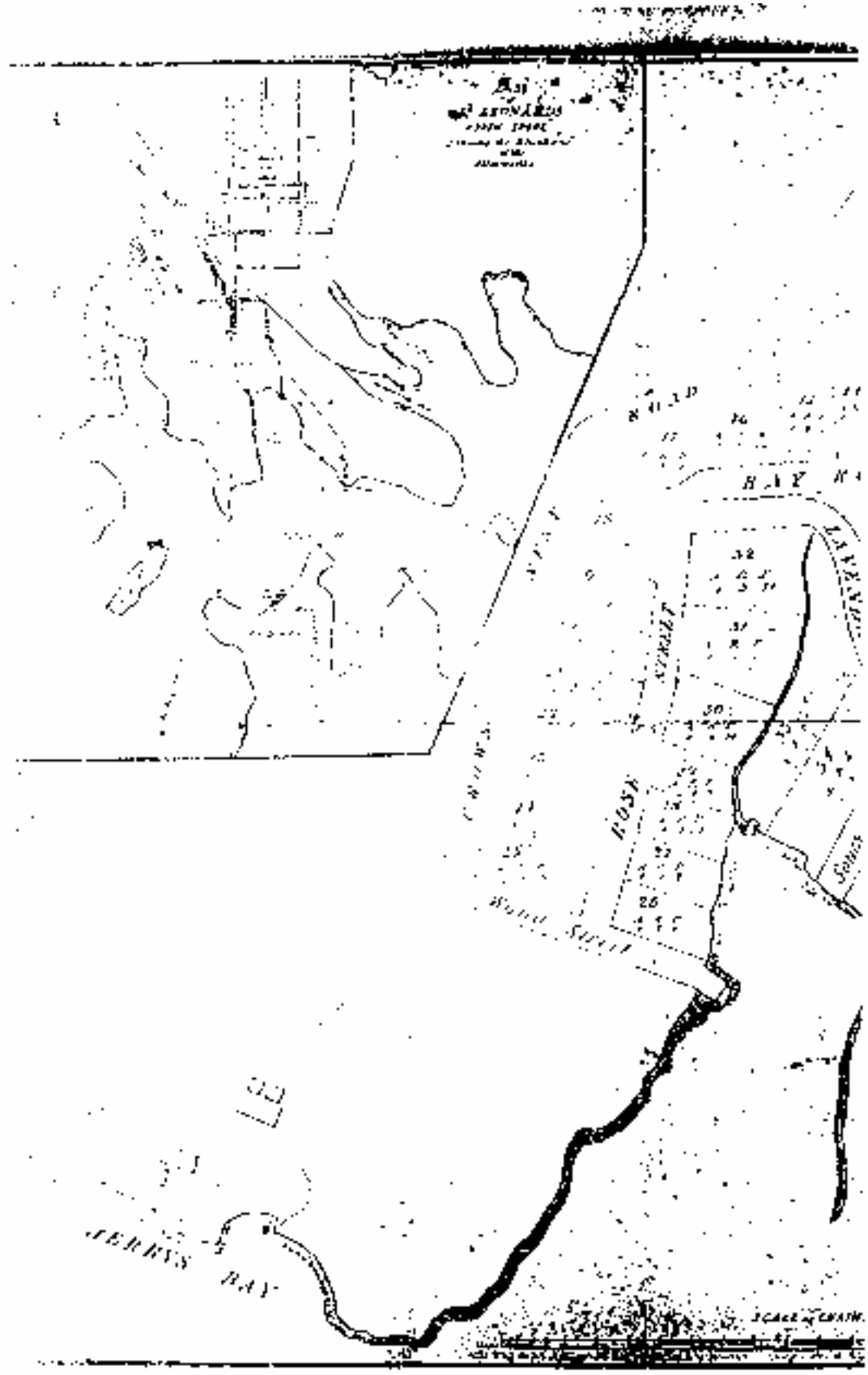


Figure 5.1 Plan of Allotments of Land Situated on the Crows Nest Estate, c1852. This plan shows Wollstonecraft's original wharf at the bottom of Wood Street as well as the new stone wharf, storehouse and cottages of the c1830 development (ML ZM2 811.1411/1852?/1).

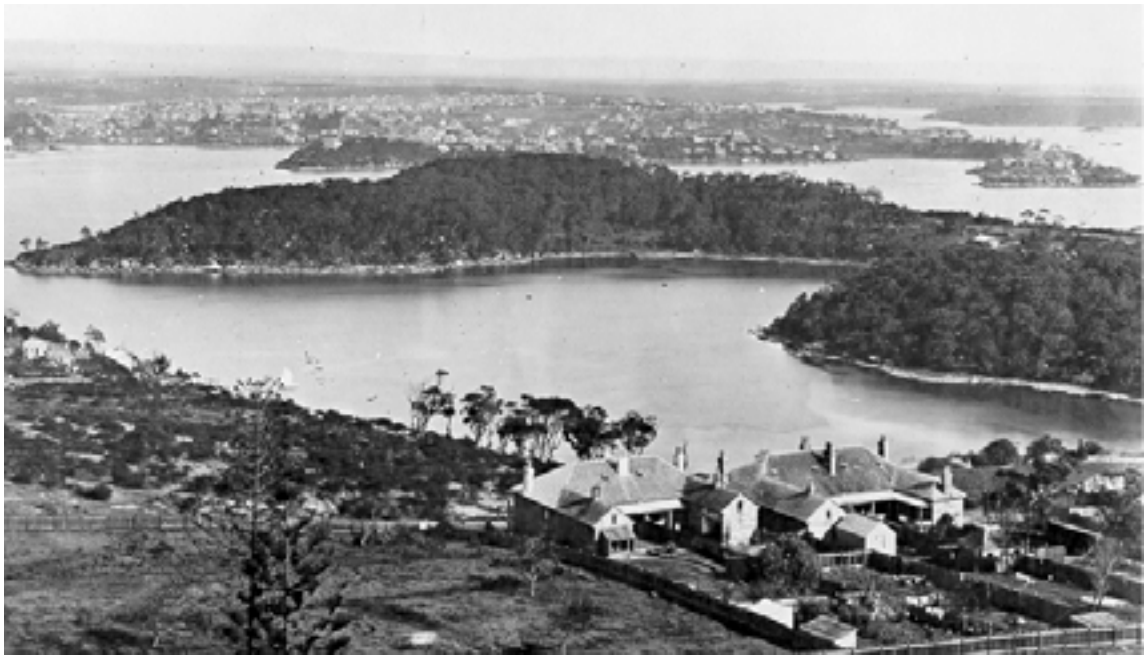


Figure 5.2 Part of Holtermann's photographic panorama of Sydney Harbour, 1881. This section looks west from North Sydney to Berrys Bay in the centre, still largely covered by natural vegetation. The torpedo depot is just out of sight in the bay, but Mathew's stone cottage sits on the neck of the peninsula. Note also what appears to be a stone wharf halfway along the shoreline (ML).

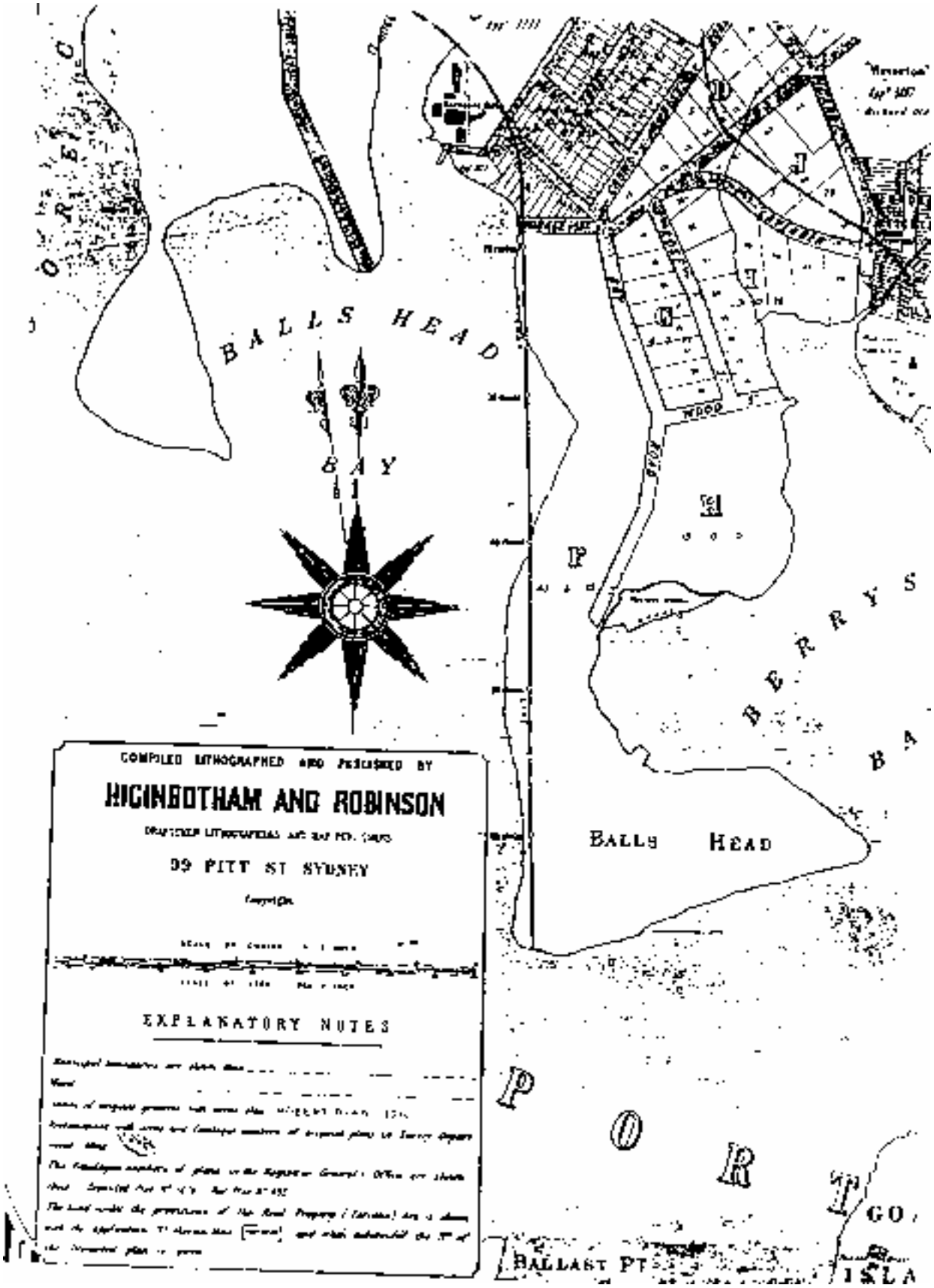


Figure 5.3 1889 Map of Proposed Station at North Sydney. This map shows Berrys Bay when the Torpedo Station was occupying the site. Note the wharf indicated, with the rest of the site otherwise unoccupied.

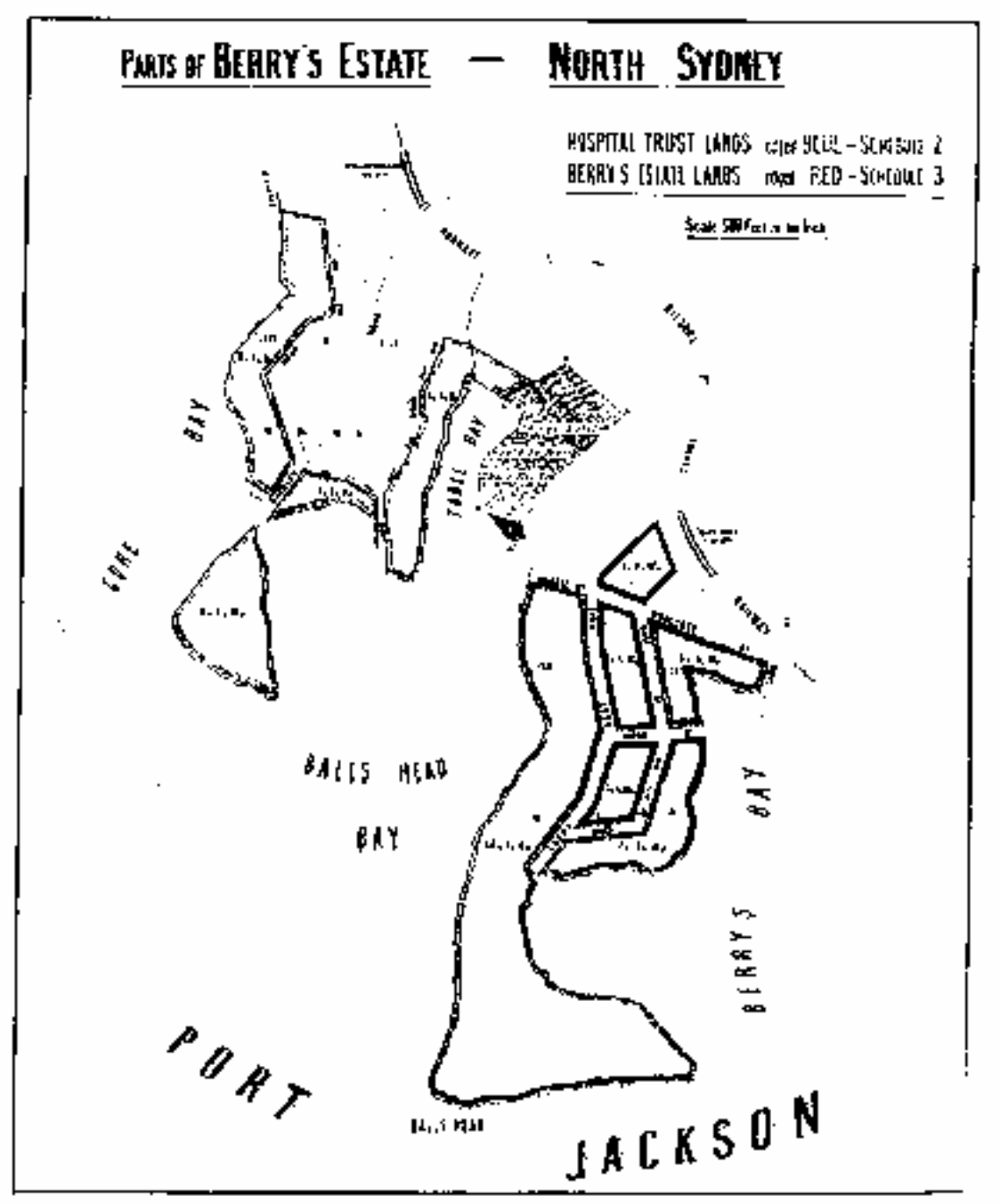


Figure 5.4 Parts of Berry's Estate in proposed Subdivision Plan, 1895. The study site is indicated.

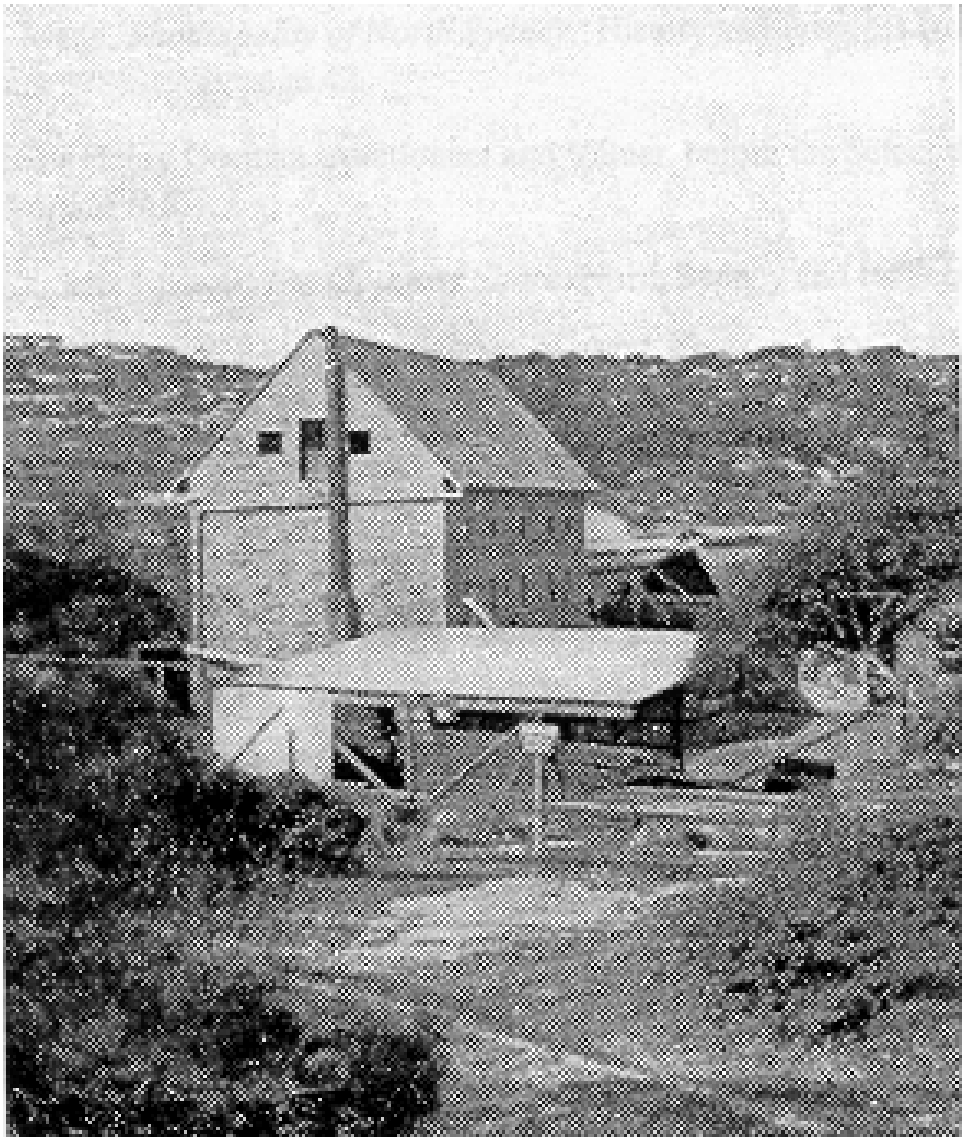


Figure 5.5 Photograph of Berry's stone store c1908 ('The Accelerator', 1 February 1935).

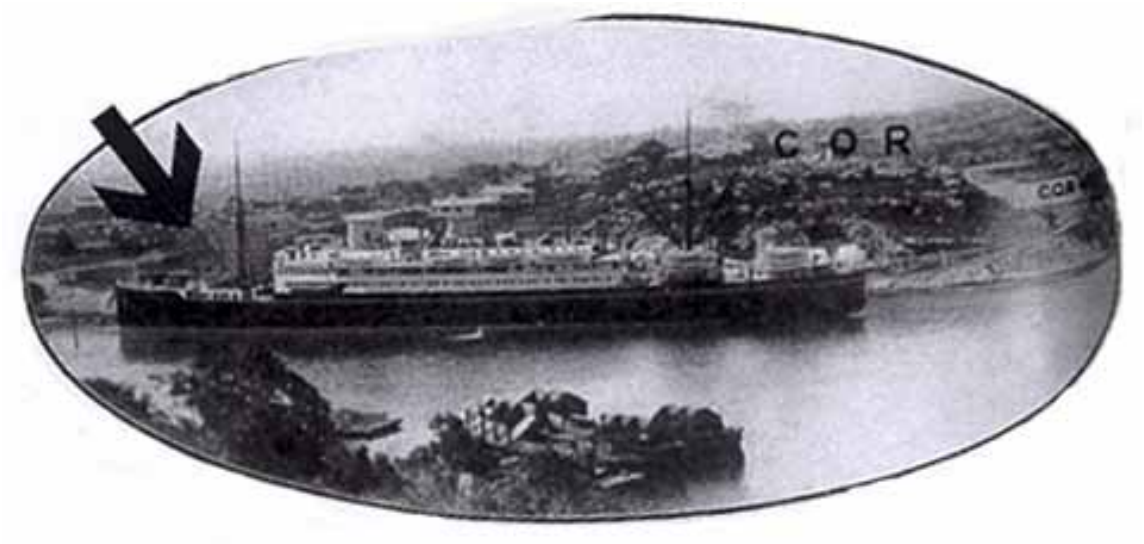


Figure 5.6 The COR. installation at Berrys Bay in 1933, with the MV *Wanganella* loading diesel in the foreground. Of interest in this photograph is the still standing stone store just behind the foremast of the vessel ('The Accelerator', 18 February 1933).

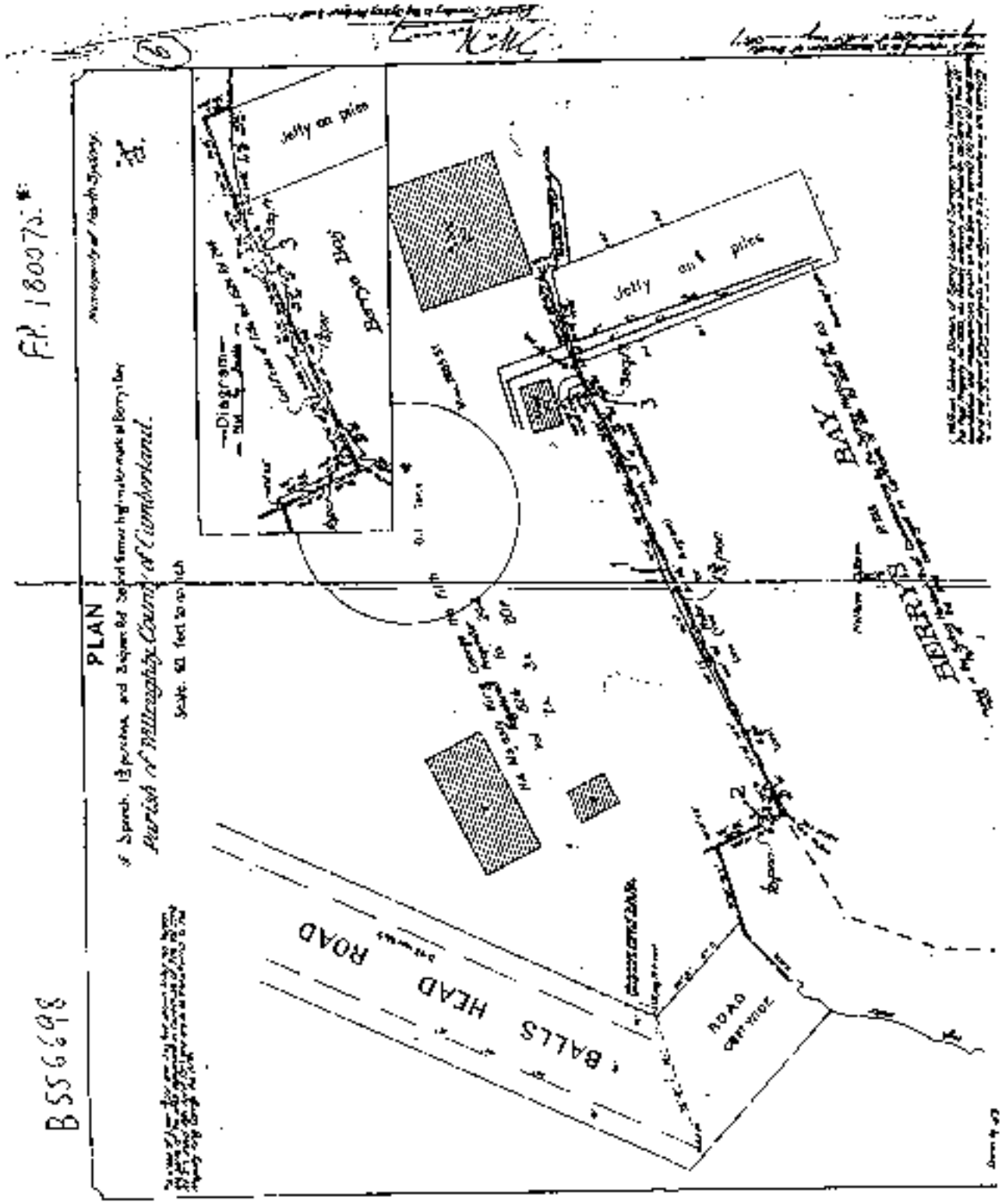


Figure 5.7 1928 Plan of the Berrys Bay Installation showing the former Berry's storehouse close to Balls Head Road and the proposed limits of reclamation of the Bay along the southern edge of Berry's former wharf and around the Bay (FP 180075).

Figure 5.8 The stone store after its demolition in June 1933. The store was demolished to make way for a new storage tank. The stones were reused on site in the construction of a bund wall ('The Accelerator', 1 July, 1936).

Figure 5.9 Panoramic view of the Berrys Bay storage site in March 1938. The COR. neon sign on the ridge was a notable landmark for the company at the time ('The Accelerator', 1 March 1938).

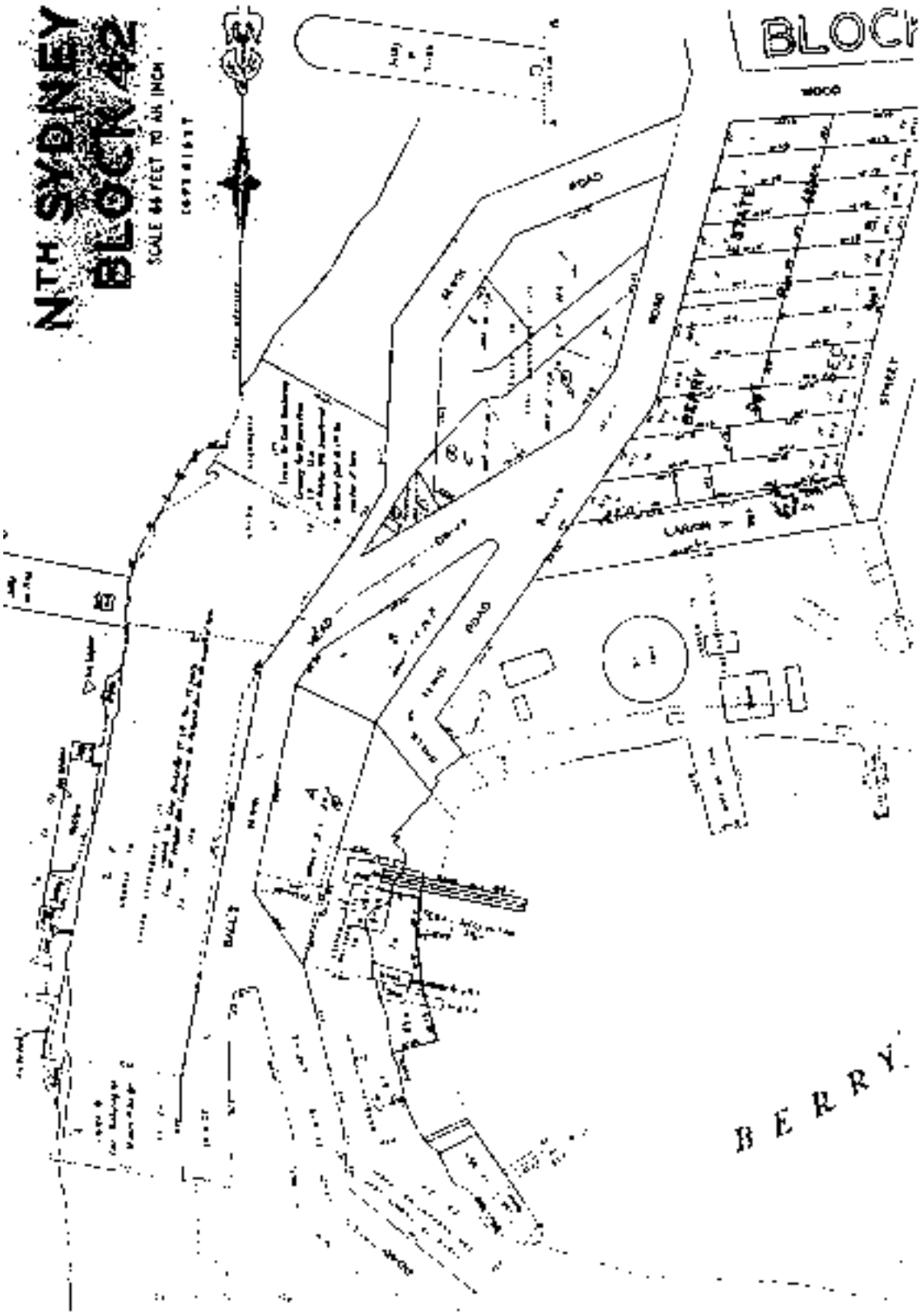


Figure 5.10 North Sydney Block Plan, Block 42, 1930–34. This plan shows the three leases to the Union Steamship Co, facing onto Balls Head Bay. Note the jetty extending into the Harbour from the main lease. It also shows the amount of reclamation around the BP site in Berrys Bay (Stanton Library).

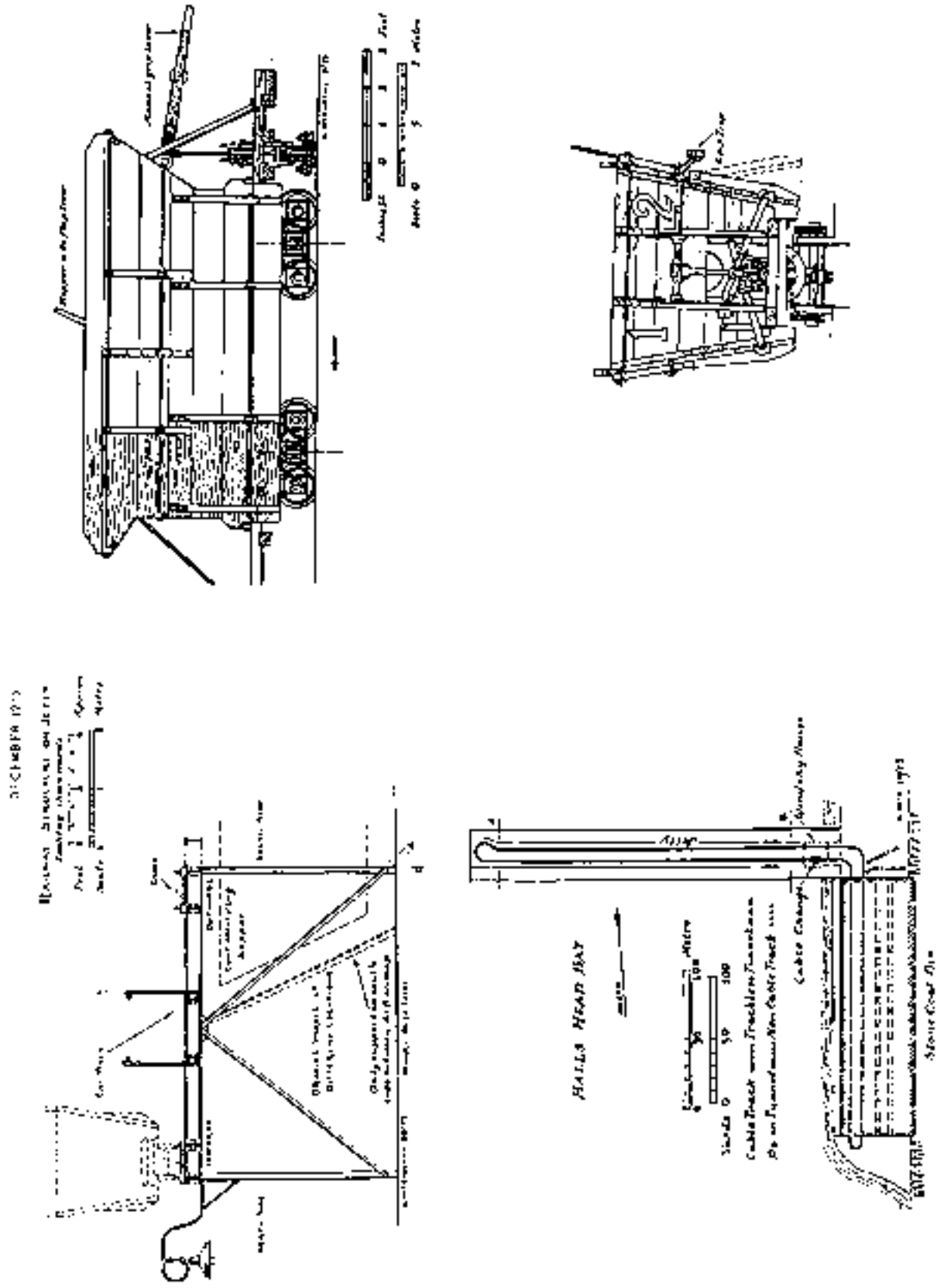


Figure 5.11 Diagram of coal wagon operating at Balls Head Coal Loader, and coal delivery system. Note the swing door that allows the release of the coal and the hopper beneath the jetty (McCarthy).

Figure 5.12 Aerial photo looking west. The BP site is in the foreground with the Coal Loader and Oil Storage over the peninsula in Balls Head Bay. Note the loading cranes over the stockpile storage at the coal loader. Berry's stone store is also visible to the west of the large tank at BP (GPO No. 07123).

Figure 5.13 Construction of the coal storage tunnels at Balls Head Bay (Stanton Library, PF1239/9).

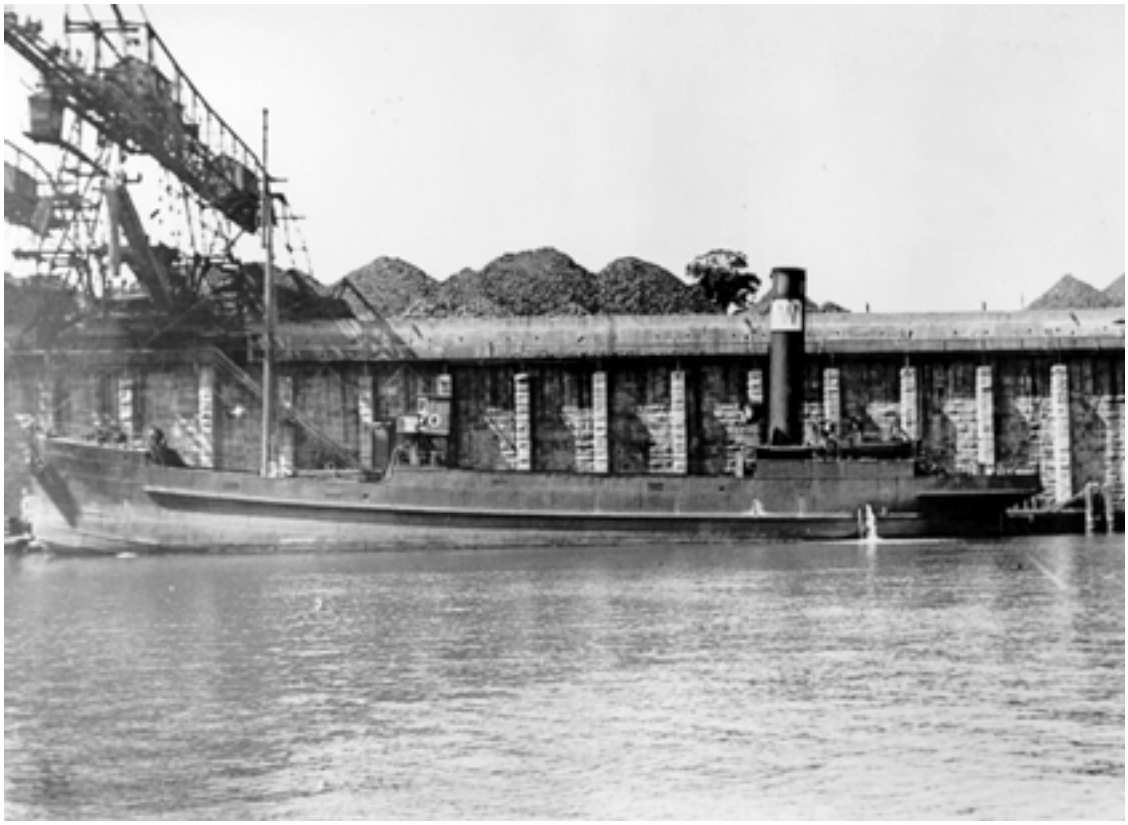


Figure 5.14 A collier docked for unloading at the Coal Loader (Stanton Library PF1234/13).

Figure 5.15 SS *Port Cardine* being charged with coal at the Balls Head Bay facility, 3 May 1940. The wagons are clearly seen running along the railway to the loader (Stanton Library, PF1165).

Figure 5.16 Aerial photograph of the BP and Coal Loader site c1935. On the BP site Berry's store is just visible next to the main storage tank. Two storage tanks are also visible to the north of the Coal Loader.

Figure 5.17 Aerial Photograph of the BP and Coal Loader site c1945. Note the substantial development that has occurred on the site compared to Figure 5.16.

5.7 Endnotes

[1] Stephensen, PR and B Kennedy, *The History and Description of Sydney Harbour*, p 272.
[2] Russell, E 1990, *The Opposite Shore: North Sydney and its People*, North Shore Historical Society, p 59.
[3] ibid.
[4] Sparks, C, 'The BP Site at Berry's Bay' in *North Shore Historical Society Journal*, April 1998, Vol 38, p 5.
[5] Sparks, C, 'William George Mathews' in *North Shore Historical Society Journal*, April 1999, Vol 39, p 5
[6] ibid, p 6.
[7] Sparks, C, 'The BP Site at Berry's Bay', p 8.
[8] ibid.
[9] Jones, M 1988, *North Sydney 1788–1988*, Allen and Unwin, Sydney, p 64.
[10] Sparks, C, 'The BP Site', p 8.
[11] Sparks, C, 'William George Mathews', p 7.
[12] Jones, op cit, p 64.
[13] Skidmore, JA 1994, 'Mineral Oil in NSW: A Thematic Study from the Founding of the Colony to the end of WW II', p 121
[14] 'The Accelerator', 1 July 1936, p 3.
[15] 'Ports of the Commonwealth: Coal bunkering at Sydney', *Land, Transport and Sea Trade: A Journal of Progress for the War Period and after*, Vol. 2, No. 20, January, 1919.
[16] Roderick, C (ed) *Henry Lawson: Collected Verse Vol 3, 1910-22*, p 401.
[17] EJE Enviroplan & Peter Fenwick, A Heritage Assessment of the Unloading Gantry Crane and Wharf at the Balls Head Bay Coal Handling Facility, p 8.
[18] McCarthy, K December 1975, 'The Balls Head Coal Loader', article in Balls Head Vertical File, Stanton Library, p10.
[19] EJE Enviroplan, op cit, p 5.
[20] 'Balls Head Unique Old Coal Loading Cable Scrapped for Modern Mechanism', *North Shore Historical Society Journal*, October 1976, p 4.
[21] McCarthy, op cit, p 16.
[22] EJE Enviroplan, op cit, p 6.
[23] *Sydney Mail*, 3 March, 1920.
[24] Petroleum Information Bureau 1960, *This Age of Oil: A History of Petroleum in Australia*, p 121.

6.0 The Industrial Sites: Physical Description

6.1 BP Site

A diagram showing BP site elements, including potential archaeological features, is provided at Figure 6.1. The BP site is located on the southeastern side of the Waverton Peninsula, adjacent to Berry's Bay. Road access is via Larkin Street and Balls Head Road.

Accommodation for large fuel storage tanks was provided by the removal, mainly through blasting, of the natural bedrock. Several terraces were formed using the cut and fill method and brick or concrete retaining walls.

The tanks were removed in 1994, revealing the curved forms of the tank cuttings which provide a dramatic sculptured backdrop, interspersed with remnants of the original rocky outcrop (see Figure 6.2). At the Larkin Street level there is a c1960s brick office (see Figure 6.3) and first aid building as well as an upper level concrete retaining wall and extensive flat paved area constructed during the 1960s to provide level space for the fuelling of petrol tankers (see Figures 6.4 and 6.5). The site has a range of extant industrial relics which date to each phase of occupation and include the sandstone block bund wall, brick and concrete retaining walls and less obvious drainage canals, footings, paving, stairs, railings and pipe work.

The foreshore has been modified through land reclamation and retained by a variety of concrete and stone sea walls. A remnant section of sandstone block wall survives above the sea wall, at the site boundary with Woodley's Boat Yard (see Figure 6.6). This wall is outside the chain wire fence, and is overgrown with grass, but further investigation may reveal its relationship to the adjacent sea wall and boat ramp, located on the Woodley's site, which date to the Berry occupation.

The reclaimed sections of foreshore provide working and access areas for the three remaining wharves; the western, wide timber wharf, timber T-wharf and steel Dolphin-style wharf to the east.

6.1.1 Phase 1: Wollstonecraft and Berry

The first historical phase of occupation was during the 1820s when Edward Wollstonecraft was granted land on the north shore. He had a timber wharf built in the vicinity of the existing western timber wharf, close to Wood Street. Wollstonecraft was a merchant and business partner of Alexander Berry, the owner of the Coolangatta Estate in the Shoalhaven. Berry and Wollstonecraft decided to use the Berrys Bay site as a depot for the produce from Coolangatta. In 1834 a stone wharf and warehouse was constructed as was a cottage for the overseer WG Mathews, as well as a stable and two wells.

The existing coursed sandstone block bund wall built in 1936 reuses the sandstone blocks of the warehouse built by convict labour for Alexander Berry in 1834. The stone store was four floors, 60 feet long by 26 feet wide with walls 3 feet thick. Some of the stones have tooled margins and are

rumoured to be marked with the number of the convict that cut them. No numbers were found on the exterior face, and the interior face has been lined with concrete.

Berry's sandstone block wharf, c1830, was 64 feet long by 29 feet wide and included a crane. It was built along the foreshore, quay-style and replaced Wollstonecraft's timber finger-style wharf. Remnants of this stone wharf may survive in the sandstone wall adjacent to Woodley's Boat Yard.

There are stone cuttings and building foundations visible in the southwestern corner of the site. While it is not known which phase of occupation they relate to, they may predate the current boundary line. It is probable that archaeological material survives from each of the early occupations, in the western corner of the site which was the focus of nineteenth-century activity. It is also likely that archaeological deposits relating to the site exist beyond the current western boundary. Sandstone steps thought to be WG Mathews' second house, built in 1854, survive nearby, west of Balls Head Road. The boat ramp and sea wall that date to the Berry occupation are still in use on the neighbouring Woodley's site.

The site was also used as a quarry, during the early nineteenth century, with stone being removed east of the stone store.[1]

6.1.2 Phase 2: Tenants

The wharf and stone store were leased to the Peninsula and Oriental Company, P&O, and the General Screw Steam Company in 1853 who used the site briefly as a coal store. A huge stockpile of coal was created.

AB Black later used the site for the storage of ballast and in 1872 the stone store became a distillery for the Rag & Famish Hotel. Distilling was illegal until 1824, when Bigge supported Macquarie's request to allow it. Distilling offered several benefits to the colony; primarily it helped to regulate the demand for grain as the distilleries could operate during gluts and close during shortages of grain. Other benefits were to act as backing for the issue of a bank note and also to reduce the high level of importation of spirits.[2] It is possible that archaeological evidence survives from this occupation phase, in the western part of the site.

6.1.3 Phase 3: NSW Torpedo Corps 1877–1889

The NSW Torpedo Corps occupation resulted in the use of the name Torpedo Bay for 30 years around 1900.[3] The stone warehouse was used for munitions storage and a compound, surrounded by a paling fence, was constructed. The compound included workshops, an office and a hydraulic testing house. There was also a Blacksmith on the wharf edge in c1880.

6.1.4 Phase 4: Anglo-Persian Oil Company 1920 and Commonwealth Oil Refinery 1930 and BP Australia 1957–Present

The Commonwealth Oil Refinery occupation commenced with the Anglo-Persian Oil Company which became wholly owned by BP in 1961. The site had already functioned as a fuel depot for the General Screw Steam Co but the occupation by the Anglo-Persian (later Anglo-Iranian) Oil Co marks the beginning of the site's use as a large-scale liquid fuel depot. There are a number of features that date to this early depot phase.

Like previous occupants, the oil company established itself in the vicinity of the western wharf which was subsequently replaced in 1930. The first large fuel tank was sited immediately east of the current sandstone bund wall in 1923. By 1926 three fuel tanks had been installed on the southeastern corner of the site, on a terrace formed by the extant brick retaining wall. They also had two storage/work sheds near the wharf and another storage shed on the crest of the rocky outcrop known as 'Gibraltar'. By 1930 there were large neon initials 'COR' displayed facing the Harbour, demonstrating the site's focus on water access. It was typical at that time for industrial sites to be built facing the water and to be identified with large lettering that also faced the water rather than the access road.

There was also a funicular tramway to carry 4-gallon drums of kerosene to the storehouse on 'Gibraltar'. [4] Early photographs indicate that the tramway may have run in a direct line from the western wharf to the store. [5] The stone cutting that now houses steps, between the administration building and first aid room (see Figure 6.8), may be evidence of the tramway. No details of the funicular tramway have been found, but it is likely to have been similar to the system employed on coal mine inclines.

In 1933 Berry's stone store was dismantled and the stones were reused to build the existing bund wall on the western part of the site by 1936.[6] This encircled five tanks by 1937. The large tanks installed around the site were accommodated by the excavation of the natural rock. A drill bit wedged in a rock wall opposite the T-wharf demonstrates how the residual channel markings visible on the rock escarpments were formed. Although the steel tanks themselves have gone, the remnant infrastructure associated with the tanks demonstrates the dimensions of the tanks and the methods used to channel fuel and water throughout the site as well as on and off shore (see Figure 6.9). These include:

- mortises in the rock walls that are indicative of the support structure for the network of pipes which were a key element of the site;
- encircling drainage canals and concrete footings, for the metal fuel storage tanks;
- sandstone block footings for the 1923 tank;

- brick retaining walls; including the eastern c1926 lower terrace with its brick and concrete retaining wall and a remnant brick wall wedged in the natural rock face, northeast of the T-wharf;
- pump room concrete footings;
- elevated steel walkways and concrete paths between the administration block and the waterfront areas;
- concrete drainage channels and retention structures with weirs, baffles and the associated remnant pipe work and valves (see Figure 6.10);
- concrete plinths and steel bolts, used for mounting equipment. One plinth is outside the chain wire fence, and is above the sandstone block wall near the Woodley's corner;
- middle terraces formed to accommodate storage tanks on the western part of the site; and
- the electrical substation enclosure.

More prominent are the three wharves, these are the:

- western wide timber wharf which dates to the 1930s and is the oldest wharf on site (see Figure 6.11). It was built by the Commonwealth Oil Refinery and is a wide, timber pile wharf, designed to provide space for loading and unloading product. Pipes, now cut off and sealed with concrete, once ran the length of the wharf, and were used to transfer fuel to and from the storage tanks on site;
- the timber 'T' wharf which was built in the 1960s to replace an earlier finger wharf. It was built to increase the mooring capacity of the site; as ships increased in size, one ship would berth across the two timber wharves; and
- the Dolphin wharf, built in 1962, again to upgrade mooring facilities for large fuel tankers (see Figure 6.12). The wharf has reinforced concrete mooring dolphins connected by steel truss frames, which support pipe work between the fuel tanks on shore, and the moored ships. There is also a steel walkway from the shore to the central pontoon wharf area and to the outer dolphins. The central pontoon is roofed and the entire wharf work area is electrically lit. The wharf has Rankin Fenders which are parallel steel plates set in rubber. They allow the wharf to 'give' 21 inches and therefore reduce the load on the wharf piles.

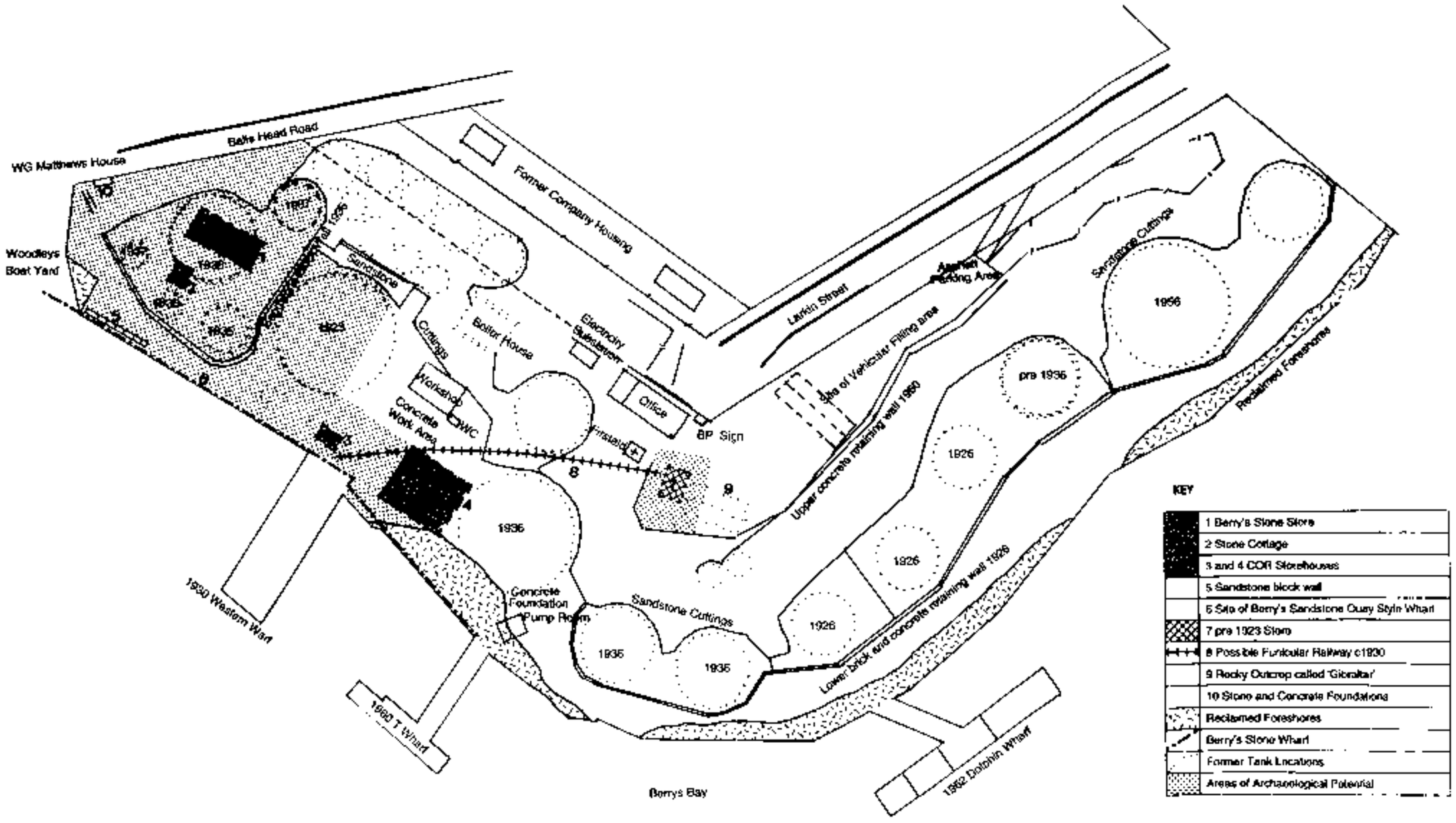


Figure 6.1 BP site elements, including potential archaeological features.

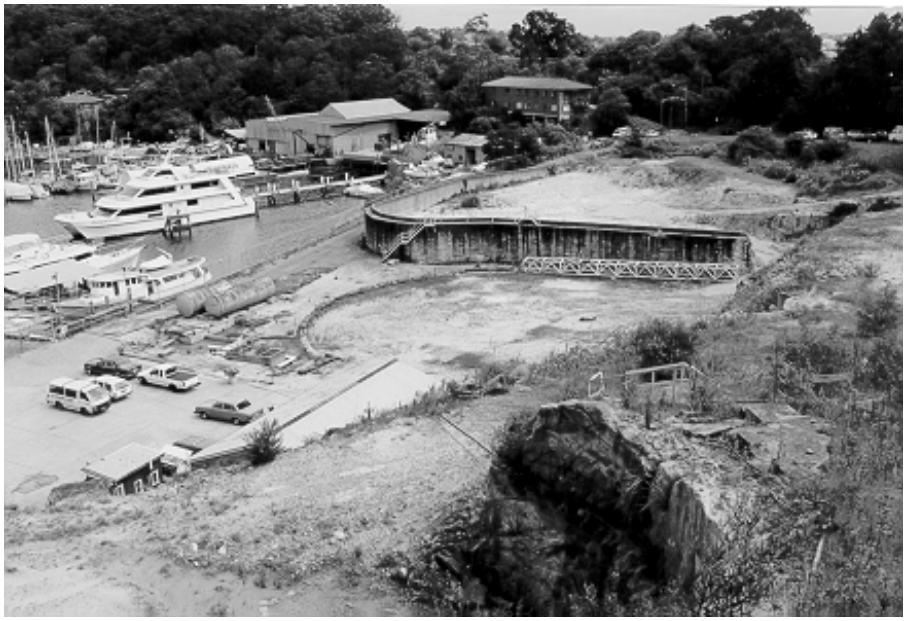


Figure 6.2
BP site, the area of archaeological potential, footings for 1923 fuel tank – Woodley's Boat Yard is in the background.

Figure 6.3
1960s brick office for BP at Larkin Street. The foreground shows the potential archaeological site as a pre-1923 store room.

Figure 6.4 The c1960s concrete retaining wall was built to form a flat area for road fuel tankers at the Larkin Street level. The upper wall and lower excavated rock and 1926 terrace in the foreground are features of this modified distinctive industrial landscape.

Figure 6.5
The c1960s concrete surface constructed for road fuel tankers. The site was used for refuelling tankers and requires remediation.

Figure 6.6
Woodley's Boat Yard, Berry-era boat ramp and sea wall, and overgrown sandstone block wall above concrete sea wall, in vicinity of Berry's sandstone quay-style wharf.

Figure 6.7 BP site showing the area of archaeological potential where the nineteenth-century occupants focused their activities. The two houses adjacent to the site boundary, LHS, were company-owned properties for the site manager and staff. The c1960s brick office block and first aid building are on the rocky hill, known as Gibraltar during the early 1900s. The rock cuttings indicate the former location of the fuel storage tanks. The 'No Smoking' sign is indicative of the flammable nature of the material stored on site.

Figure 6.8
Brick first aid building and sandstone cutting, thought to predate the concrete stairs.

Figure 6.9
The removal of the steel fuel tanks in 1994 revealed the dramatic excavated sandstone walls, canals and concrete bases for the tanks.

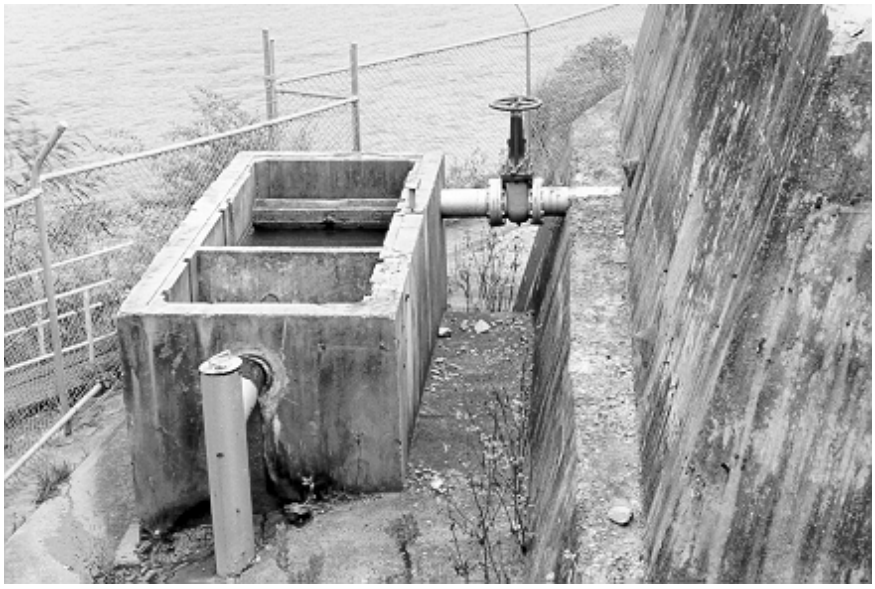


Figure 6.10
Concrete tanks with weirs, baffles and valves provide evidence of the methods used in the transfer of fuel and water at the BP depot.

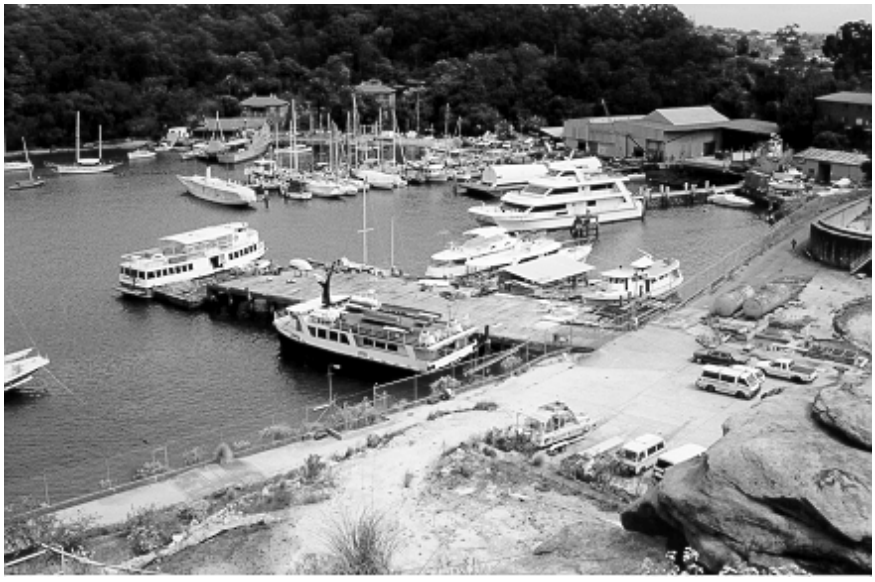


Figure 6.11
1930s western timber wharf from COR establishment phase.

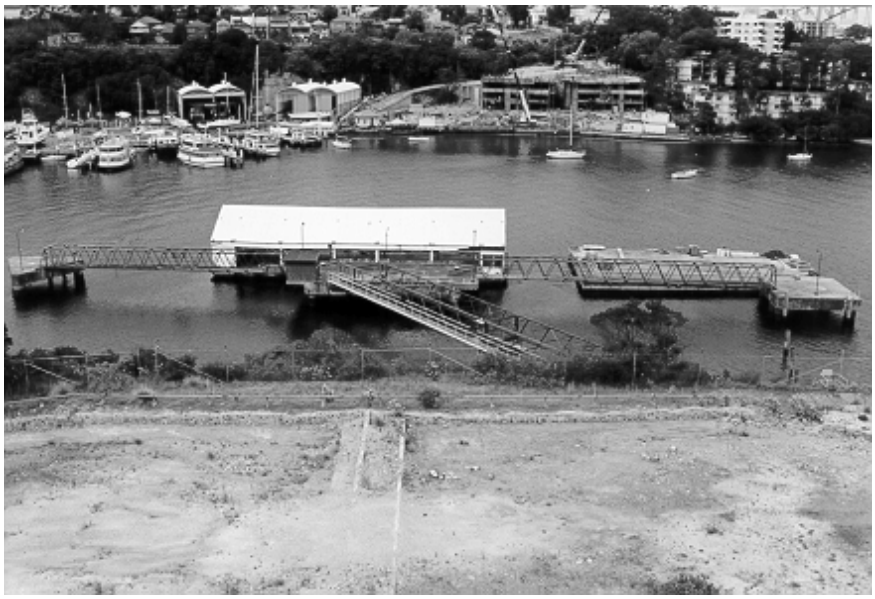


Figure 6.12
1962 concrete Dolphin wharf connected by steel walkways. Note 1926 lower terrace in foreground.

6.2 The Caltex Site

The former Caltex site is located on the corner of a Private Road and Balls Head Road. The site's northern boundary adjoins HMAS Waterhen and the southern boundary merges with the Coal and Allied Industries Coal Loader site. Coal and Allied built a track from the Private Road gateway to their wharf, using a bulldozer to cut through the bush. This track therefore traverses the Caltex site to provide access for trucks carrying equipment to the wharf. Prior to the road, Coal and Allied had to take all equipment down the steep cuttings on the Coal Loader site.

The Caltex site has a restricted area of flat land which has the road through it and a bitumen surface.

There are metal ship containers and a makeshift storage shed located along the edge of the bitumen area, as well as assorted steel mining equipment under repair and associated pipes. These items have recently arrived on the site and do not relate to the former occupation phase. On the Harbour side, to the west, there is a steep, vegetated, undeveloped slope to the water.

The first industry to occupy the site was HC Sleigh in 1953. HC Sleigh had established Golden Fleece in 1913. Golden Fleece was subsequently taken over by Caltex in 1981, which in turn merged with Ampol in 1991.

HC Sleigh imported lubricating oil from Mexico, which was stored in two large tanks on the site. Evidence of one fuel storage tank is visible in the southeastern corner of the bitumen area, where the circular footings can be seen extending beyond the more recent bitumen surface (see Figure 6.13). There was another tank immediately to the east which sat on a level area cut into the slope.

Duty was not paid on the oil until it was removed from the site for treatment at the refinery in South Sydney. A customs officer was stationed in the extant brick office building, along with an HC Sleigh employee, to assess the duty payable. This office is located on the eastern site boundary. It has timber-framed windows and doors. An unfinished skillion extension in concrete block has subsequently been added to the western elevation (see Figure 6.14).[7] This site is economically connected to the Coal Loader site as Caltex also leased and operated the two large fuel tanks on the Coal Loader site.

Figure 6.13
Outline of a circular fuel tank, evident at the edge of the bitumen.

Figure 6.14
Office built for HC Sleigh, with recent extension.

6.3 The Coal and Allied Industries Coal Loader Site

A diagram showing the Coal Loader site elements is provided at Figure 6.15. The Coal Loader site is a long narrow site situated along the southern end of the western side of the Waverton Peninsula, Balls Head Road and the Harbour foreshore. The natural bedrock has been excavated to provide sites for two recently removed large steel fuel storage tanks and a sandstone block and concrete coal storage platform. Terraced work areas have been formed by cut and fill, and retained by high sandstone block walls. The sandstone block sea wall has redefined most of the shoreline.

A 'street' of buildings, including a former powerhouse, workshop, office, amenities buildings and storage areas, is located on the ridge, and there is a sandstone block wall along the Balls Head Road boundary.

The site was built for the Coal Bunkering Co Ltd, a subsidiary of the Union Steam Shipping Company of New Zealand. Coal was brought in colliers to Balls Head where the coal was unloaded for ships bunkering at the Coal Loader wharf. These were primarily the company owned cargo and passenger ships.

6.3.1 Fuel Tanks Site

These tanks were used to store bunkering fuel for ships and were installed by the Union shipping Company, as part of the original coal platform and wharf complex. The tanks were to supply fuel for those ships operating on oil rather than coal. The capacity of these tanks were 3,000 tons and 4,000 tons for the northernmost tank (see Figure 6.16).

The tanks were connected to the pump room by underground pipes (which are likely to remain in situ). The pump room is beneath the eastern end of the Coal Loader wharf. The pump room remains substantially intact and the pipes that run from the pump room to the western end of the wharf are also in situ. These pipes were used to fill the storage tanks, and in reverse, to bunker ships.

Initially, the Union Steam Shipping Company ships collected oil from elsewhere in Australia, New Zealand, and the west coast of USA to be stored in the tanks on the Coal Loader site.

Oil barges or lighters would then moor at the wharf and load up with fuel, using the pumps in the pump room under the wharf. The lighters would then distribute oil to ships in the Harbour. Alternatively, ships would moor at the wharf and use their own pumps to fuel up or unload fuel.

The fuel tanks, pump room and wharf were subsequently leased by Vacuum Oil, and finally the Caltex Oil Company. Ships docking for fuel were charged a wharfage fee by the owners of the Coal Loader.

The oil storage tanks were made redundant during the 1970s when Caltex had a pipeline laid between the Botany Refinery and their Balmain and Pulpit Point storage facilities.

The Coal Loader site owners, Coal and Allied Industries, considered various schemes to utilise the tanks including the storage of raw sewage, which was to be taken out to sea. However, the company decided not to proceed with any of the proposals and the Caltex Company paid for the removal of the tanks during the 1980s, quite some years after leaving the site.

6.3.2 Coal Loader Platform

An imposing structure on the site is the Coal Loader platform measuring 49m wide by 180m long and principally made of stone (see Figures 6.17, 6.18). The platform was built to stockpile coal which was unloaded from ships and is located between the ridge and the Harbour low-tide mark. The eastern section is cut into the natural rock and the other exterior surfaces are faced with large stone blocks measuring 1.2m long by 1m wide. The remainder of the structure is built from formed concrete with a high concentration of aggregate. Much of the aggregate is Thames River gravel, a hard flint rock that is very dense and heavy and was frequently brought as ballast from England (see Figure 6.18). Perhaps the builder acquired the aggregate for low or no cost while the ships were divested of unwanted ballast.

Initially, the coal was unloaded using two Mead Morrison gantry cranes. These cranes ran on rails located along the eastern and western sides of the platform. The foundations of these rails remain in situ. The crane scooped coal from the colliers' holds as they were moored parallel to the western sea wall of the platform and transferred it to the stockpile on the platform floor. The same cranes, in conjunction with bulldozers, were used to direct the coal into the thirty-three square-shaped hoppers which are recessed into the platform floor (see Figure 6.19). A steel bin gate at the base of these hoppers was operated from inside the reclaim tunnels below.

Each hopper is numbered so the operators could communicate exactly where the coal was located. The numbers are painted on the sea wall and eastern crane wall as well as on the bin gates and walls in the reclaim tunnels. The numbers were even in one tunnel and odd in the other. The perimeter of the stockpile floor has a 1.2m high reinforced concrete and aggregate wall to minimise spillage. This wall is deteriorating and sections of the reinforcement is exposed (see Figure 6.19). Vehicular access to the Balls Head Road gate is via a ramp on the northeastern corner of the stockpile platform.

The sea wall of the structure is built from sandstone blocks and is founded at low tide level, on the natural bedrock. It has 31 engaged piers that terminate 2m below the top of the sandstone wall. They support the western rail for the unloading gantry cranes which travelled the length of the platform. A lower steel walkway is supported on steel brackets attached to the sea wall, just above high tide level, and provides access to the ships tied up at the mooring dolphin. This walkway is covered with curved corrugated iron to protect the sailors from falling coal. Behind the seawall is an interconnected cellar section extending the length of the structure (see Figure 6.20).

The eastern side of the coal platform is excavated into the natural rock as are the eastern two reclaim tunnels.

The northern and southern ends are founded on the natural bedrock and are about 8m above the low tide level. They, like the sea wall, are built from large sandstone blocks. These end walls have four arched entrances, 2.5m wide by 6m high, which are the entrances to the four parallel reclaim tunnels that extend the length of the platform (see Figure 6.21).

6.3.3 Tunnels No. 1 and 2

These were the first tunnels used, commencing in 1921. Both tunnels were fitted with narrow gauge tram tracks on timber sleepers for the coal skips, timber framework and steel rails to support the elevated automatic, self-propelled, reciprocating feeders and steel bin gates at the base of each hopper from the coal platform above. The equipment was manufactured by the American firm Mead Morrison and was purchased second-hand for this site (see Figure 6.22, 6.23).

Coal was fed into the coal skips which were towed by a continuous rope haulage system through the tunnels, in a clockwise direction. They exited tunnel No. 1 and proceeded along the wharf on the extant elevated steel unloading structure. They were emptied through gates in the bottom of each skip, and returned back to the northern side of the coal platform where the unloading gates were automatically closed. The skips re-entered tunnel No. 2. A surviving skip is on display adjacent to the south of the administration building (see Figure 6.24).

The skips were charged with coal via bin gates which remain in situ in tunnel No. 1 (see Figure 6.23). The bin gates were opened when the driver of the automatic self-propelled reciprocating cable truck feeder arrived beneath the required bin gate and locked it into position.

West of tunnel No. 1, between the tunnel and the sea wall of the platform structure, is a row of chambers accessed from a door in the northwest end of tunnel No. 1. The chambers are several metres high, constructed from formed concrete and aggregate, and have a concrete beam supporting the ceiling. There are two open vents in the upper section of the sea wall in each chamber. The chambers are inter-connected by a low opening in the party walls. This area is said to have been solid construction similar to the rest of the structure, but was reformed in concrete due to pressure causing cracks in the sea wall and along the roof of tunnel No. 1.[8] There are old tell-tale strips used to monitor cracks in the platform but apparently no movement was detected.[9]

6.3.4 Tunnels No. 3 and 4

Tunnel No. 3 is part cut from the natural rock and part formed by a concrete and aggregate mix used to form tunnels 1 and 2, with the external walls faced with sandstone blocks.

These were converted to a conveyor belt coal retrieval system in the 1976 upgrade of the site. The 1976 upgraded outloading system was designed by Sydney engineering consultant Soros Longworth and Mackenzie and constructed and installed by Malco Industries of Adelaide, who received an

award for their site adaptation from the Institution of Engineers Australia, South Australian division, the South Australian engineering award for excellence in engineering work. This upgrade utilised tunnels No. 2 and No. 3, two reclaim conveyors, which were broad and deep with the capacity to move 1,000 tph and which were fed by two travelling vibrating feeders of 500 tph. All of the equipment has been removed except for the geared steel bin gates mounted on the roof of the tunnels (see Figure 6.25). A concrete brick bund wall on the southern end of the platform was constructed to contain spillage. Men stood inside the bund area and shovelled any spilt coal back onto the conveyor as it exited one tunnel and entered the next.

The feeders ran on rails, elevated on a timber support structure. One of the original two feeders remain in situ, mounted on its timber support structure and rails. There was always some water seepage through the stone work, and this caused the base of the timber posts for the elevated rail to rot. A number of these posts have therefore had their bases replaced. The rough-hewn timber beam and rail, however, are unaltered.

The original equipment on the site was purchased second-hand from the American firm, Mead Morrison. This included the two unloading gantry cranes mounted on rails, which ran alongside the coal platform floor, the automatic skip feeders in tunnels No. 1 and No. 2 and associated skips, as well as the loading equipment once located on the wharf. Remaining in situ is the support rail for the gantry rails, the bin gates, travelling feeder and associated rails in tunnel No. 1, and a timber skip on display near the administration building. The skips underwent constant maintenance on site by the company carpenters. The electrical wiring housed in metal pipe was installed for lighting in tunnels No. 1–3 and remains in situ.

Tunnel No. 3, prior to the installation of the conveyor system, was used as the carpenter's workshop for a number of years, where he had space to repair the coal skips. There was an internal wall built and a steel plate door with ventilation holes was fitted to the northern entrance of the tunnel to secure the tools, and minimise the strong draught.

The easternmost reclaim tunnel, tunnel No. 4, was cut from the natural bedrock, and was not used for coal. It was, however, sealed at each end and used as a reservoir for the water used to spray the coal stockpile to reduce airborne coal dust on windy days. The water spray was connected to an anemometer, and was triggered automatically, depending on wind speed and direction (see Figure 6.26). The water spray also had detergent mixed into it, which allowed a minimal quantity of water to be used, thereby preventing saturation of the coal, which makes it unsaleable, and also reduced the risk of spontaneous combustion of the coal. This technique was designed by Coal and Allied for this site and was subsequently implemented on most sites where coal is stockpiled.

There are remnants of timber stairs which led from the coal platform to the tunnel ground level on the southern elevation, and steel stairs survive on the northwestern corner of the coal platform.

6.3.5 The Wharf

The wharf dates to the establishment of the Coal Loader c1920. It is a high level industrial wharf, built to enable the unloading and loading of ships holds from above, regardless of the tide level.

It is a timber wharf, with timber piles and cross bracing. The timber deck is predominantly diagonally laid timber planks; however, a square laid section of timber deck, beneath the coal unloading gantry frame, indicates the former location of the electric drive house for the continuous cable that hauled the coal skips from 1920–1976 (except for 1964–74 when the site was idle).

Most of the timber piles have rotted in the tidal range, and the wharf is supported by a steel structure, added during site upgrade in 1976 (see Figure 6.27).

Beneath the wharf is the bunkering fuel pump room, equipment, and pipes operated by the Union Steam Ship Co and Caltex prior to the mid-1970s (see Section 6.3.6 below).

Surviving in situ along the timber deck of the wharf is the steel support structure for the elevated cable rail system, installed by the Coal and Bunkering Co Ltd at the outset of site operations and completed during the early 1920s (see Figure 6.28).

The company ships would moor at the wharf for refuelling – 'bunkering' – and coal was delivered from the coal platform to their bunkers via the skips that were connected into a continuous rope haulage system, along an elevated tramway built on top of the existing steel framework to two travelling elevator delivery gantries, at a rate of 700 tons per hour. The location of the supports for the gantry crane rails remain evident by the two rows of steel bases extending the length of the wharf.

Sections of the steel supports for the elevated tramway are embossed with the makers name, 'HOSKINS' (see Figure 6.29).

This steel is therefore a product of the Hoskins Lithgow plant, as Hoskins moved operations to Port Kembla in 1926, and the Lithgow site closed completely by January 1932.

It is extremely rare to find 'HOSKINS' branded steel provenanced to the Lithgow works, which is where the Australian iron industry really developed to a commercial level. The first ladle of Australian steel was poured in Lithgow on 25 April 1900.[10] Charles Hoskins purchased the works in 1907, and continued to develop the site as well as develop coal mines, coke works and rail links to progress the industry.

The Coal Loader site was operated by the Union Steam Ship Co from commencement of its construction in 1917 until 1934 when the Wallarah Coal Co took over. Then in 1971 J and A Brown and Abermain Seaham Collieries (JABAS) became the controlling companies.

In 1964, the site suffered the slump in the coal industry, and was virtually shut down until 1974 when it was recommissioned as an export coal facility. During this period the company retained about six

workmen on site, who were employed painting the crane and handling coal when occasional orders came in. Income was also generated by charging fees for mooring ships that were idle because of the downturn in coal trade. The main activity was the construction of the 'coal-a-matic'; an automatic coal burner for furnaces, particularly designed for brick kilns. Coal and Allied held a 10-year patent for the machine, which was designed and managed by the site engineer Mr Wilf Brogden. The original Mead Morrison equipment was used until 1976 when a conveyor belt outloading system replaced the coal skips and continuous rope haulage system (see Figure 6.30).

The steel support structure along the wharf was maintained, and the skip haulage system replaced by an elevated conveyor belt which doubled the loading capacity to 1,000 ton per hour.

All of the 1976 equipment has been removed.

6.3.6 The Pump Room

The pump room is built out from the sea wall, beneath the Coal Loader wharf so the eastern wall is the large sandstone block sea wall. It has timber framing along the southern half, used for mounting equipment such as meters, some of which remain in situ.

The other walls and roof are constructed from a sawn timber frame with galvanised iron cladding, which has rusted along the base. The floor is built up from the natural bedrock, and constructed from layers of large stones set in concrete, beneath a thick layer of concrete and aggregate mix with a thick finishing layer of concrete. The southwestern corner has dislodged, leaving a wide crack in the floor and gap below the wall. There are two timber wharf piers that pass through the concrete floor in the centre of the room and extend to the timber deck above.

Originally, entry to the pumproom was through the door in the western wall, which was reached by a timber ramp built just above high tide level, but this has gone. Still in situ is a steel walkway and steps which led from the former timber ramp to the wharf deck.

The southern wall has a four-pane, double-sash timber window with views to the mooring dolphins and along the sea wall of the coal platform. Similar windows survive in part in the northern and western elevations.

The original pumping equipment, installed by the Union Steam Shipping Co, survives in situ. The pump was manufactured by Kinny MFC Co of Boston, Massachusetts, USA and it has No. 10 Walworth valves and associated steel pipes (see Figure 6.31).

Long sections of pipe are suspended and propped by timber and steel braces. The pipes enter the pump room from the storage tanks in the northeastern corner. They exit through the western wall and extend the length of the wharf (see Figure 6.32).

A General Electric induction motor, mounted on a concrete mounting block, is connected to the pump by an Apex brand belt. A spare belt is lying in the crack caused by the dislodged southwestern

corner of the floor. Sundry furnishings survive including lockers, armchair, timber ladder and timber frames.

6.3.7 The Powerhouse also referred to as the Substation

The powerhouse, built in 1926, supplied the operations with electric power. The Municipal Council of Sydney supplied the site with 5,000 volts, AC, and the company's two 300kVA, 5,000V transformers and two synchronous rotary converters converted the electricity to direct current for use by the coal handling equipment.

In 1931 the supply voltage was increased to 11,000V, so two 400kVA step-down transformers were installed.

The powerhouse is a rectangular brick building, 25m by 10m. It was designed to provide ventilation and natural light. It has parapet-style gable ends, supported on brick corbels, which have a circular ventilation window, initially fitted with timber louvres and recently fitted with plain glass. The ridge line has a row of clerestory windows, most of which are covered with sheet metal (see Figure 6.33).

There are four pairs of windows along the western elevation and a matching pair in the northern wall. The two central windows in the western wall and the northern window retain their original lower timber panel, which hinged at the top to allow opening. However, these panels apparently were not used, as management feared unauthorised access to the highly dangerous equipment in the building.

The northern room in the building was accessed via two external doors are in the northern wall and the other in the southern wall, as well as an internal single door from the switch room. This section was the fitters shop and the equipment, no longer in situ, was powered from a line shaft and pulleys, running east/west.

The larger southern room contained the electrical equipment, including the council-owned power board, operated by council staff.

The exit points for the electrical wires to the site are clearly visible in the southern end of the western wall, as a bank of pre-1920s square earthenware conduits, and there is also a row of cylindrical porcelain conduits.

The eastern wall, built on the site boundary, has a more recent vehicular entrance which is enclosed with glass and is the front entrance to the office which occupies the building.

The southern elevation has three windows, two of which are bricked up. All of the original windows and doors have concrete lintels and the windows have brick on edge sills.

The assorted metal objects leaning against the wall of the powerhouse, including pulleys, tanks, anchor and shovel, are thought not to be artefacts from the site.

6.3.8 Open-Fronted Store

The southern wall of the powerhouse forms the side of an open-fronted store used to house machinery. The rear (eastern) wall is formed by the sandstone block boundary wall, and the southern wall adjoins the mechanic's workshop.

The skillion roof is supported by 'I' beams, which are also used for the posts, and the floor is surfaced with concrete. The site operated two front-end loaders, a bob cat and DC-4 bulldozer. This earth-working equipment was used on the coal platform to channel coal into the floor hoppers, and to load lorries, destined for the local market.

6.3.9 Mechanics Shop/Electricians Workshop

Forming the southern wall of the open-fronted store is the mechanic's and electrician's workshop. It also has the sandstone boundary wall as its eastern wall, while the western elevation has been re-faced with concrete blocks. A steel 'I' beam projects from above the door, and was used to hoist motors and heavy mechanical components.

6.3.10 Small Stone Office and Later Document Storage Area

The mechanic's shop adjoins a small building constructed from sandstone blocks, like those used in the boundary wall. The boundary wall forms the lower part of the eastern wall and the roof is corrugated-iron skillion sloping slightly towards the west. This building was the first site office, and was used until the brick buildings were completed.

The original window and door are in the southern elevation and relate to the original pedestrian gate entrance in the sandstone boundary wall. The window in the western elevation is recent.

6.3.11 Administration and Caretaker's Flat Building

The Administration building is built from stretcher bond bricks and has a terracotta tiled roof, identical to those used in the powerhouse.

The main entry point is through the verandah in the southeastern corner where the site office and weighbridge supervisor were located (see Figure 6.34). The weighbridge is immediately adjacent to this corner of the building, and the vehicular gates are just to the south on the sandstone boundary wall.

The weighbridge was used to monitor the loads on lorries destined for the local Sydney customers such as hospitals and industrial sites.

The timber, double sash-windows and doors have brick on edge, flattened arches and brick on edge sills. The central doorway in the northern elevation has a full arch entry to a small porch.

The interior is divided by a central hall. The northeast corner room was built as a caretaker's bedroom, and the site office adjoins it to the south.

Across the hall from the caretaker's bedroom was a mess room for the site's four electricians. Adjoining that to the south was the caretaker's living room, the shower and toilet. The southwestern rooms were office an control room for the coal platform.

The main rooms had doors from the hallway only.

This building is now leased as a private residence and a timber balcony has been added along the western side which would not have been possible prior to the removal of the Caltex fuel tanks, as the balcony overhangs the edge of the stone cutting which housed the southern tank.

6.3.12 Welding Shop/ Blacksmith/Carpenter's Workshop/WC

The building to the west of the powerhouse was the main work shop area (see Figure 6.35). The first building is the central, high-walled, double-brick section with galvanised iron skillion roof. The interior walls are painted white and the northern wall has a timber twelve-pane double-sash window and the southern wall has a door. A blacksmith's forge was located in the centre of the general workshop. There was a narrow brick room adjoining to the north which housed a steam-driven compressor, used to provide air for riveting and the forge, the location of which is evident by the bitumen infill in the floor. This northern room has been replaced by a larger extension which became the fitter's shop annex and housed a Mascot radial arm drill, and is used as a storage area for the current lessees equipment.

The southern area was a covered, fenced storage area and the WC area, which retains some of the original fittings, is located along the western side.

6.3.13 Mess Room/Laundry/Drying Room

This building is of brick and tile, similar to that used in the administration building. The windows and doors have brick on edge flattened arches and cement-rendered sill. The interior has two rooms, the main northern room for the employees, and the other room contained a locker room and showers.

There is a small laundry extension built of brick on the southern wall, and a drying room, now demolished, over the remaining concrete floor between the mess room and fitter's annex. Water is carried away via an open drain along the eastern elevation. The laundry facilities were provided to enable the men to clean their coal covered work clothes on site, rather than take them home.

6.3.14 Other Site Features

Natural rock walls were created in the processes of quarrying the sandstone blocks used in structures on the site. This created two distinct site levels and provided flat work areas, as well as sites to house the fuel storage tanks.

There are a number of sandstone block walls on the Coal Loader site.

These include the boundary wall along Balls Head Road which also forms the back eastern wall of the open-fronted store, mechanic's and electrician's workshop and original stone office. There is a pedestrian gateway adjacent to the original office, and a vehicular gateway further to the south. The original braced and ledged timber gates survive. This provided access via a ramp to the coal platform and the weighbridge adjacent to the administration building as well as along the internal bitumen road that extends to the fitter's annex of the powerhouse. A more recent chain wire gate is located adjacent to the north of the powerhouse in the wire fence that runs northwards past the HC Sleigh site. There is an internal stone block boundary wall that runs east-west between the two storage tank sites. This wall was broken through when the track was formed to provide road access to the wharf from the Private Road gateway in the HC Sleigh site.

There is a random rubble retaining wall buried in the grassed bank between the administration building and workshops and WC building.[11]

There is a low brick retaining wall extending along the eastern side of the Coal Loader platform, as well as between the administration building and access ramp to the coal platform.

Particularly obvious from the water is the sandstone block sea wall and Coal Loader platform wall with its buttresses like engaged piers. These walls are weathered in the tidal range and the Coal Loader platform has some cracking in the southeast corner.

Other features represent the social interactions on the site such as:

i the bitumen surface between the powerhouse and workshops. This was laid in truckloads as they could persuade council truck drivers to give them a load of bitumen; and

ii the decorative wall along the edge of the cutting between the administration building and the truck ramp access to the Coal Loader (see Figure 6.36). During the 1930s depression, the employees made the mould and formed the cross-shaped pattern blocks and built the walls and associated gardens. Work creation schemes for employees to avoid mass sackings were common during the depression.

The Coal Loader site was also associated with Nos 15 and 17 Balls Head Road, which were company-owned houses supplied for the site engineer and manager.

The site caretaker lived on site, and many of the other employees lived within walking distance.

There are two large anchors on display; one adjacent to the coal skip which is also on display and another just north of the wharf. These anchors came from the United Kingdom as spare anchors for ships but were kept on site as points of interest (see Figure 6.36).

Recent site landscaping by the current tenants includes the adaptation of the site of the northern bunker oil tank to a wetland that supports a vocal colony of frogs.

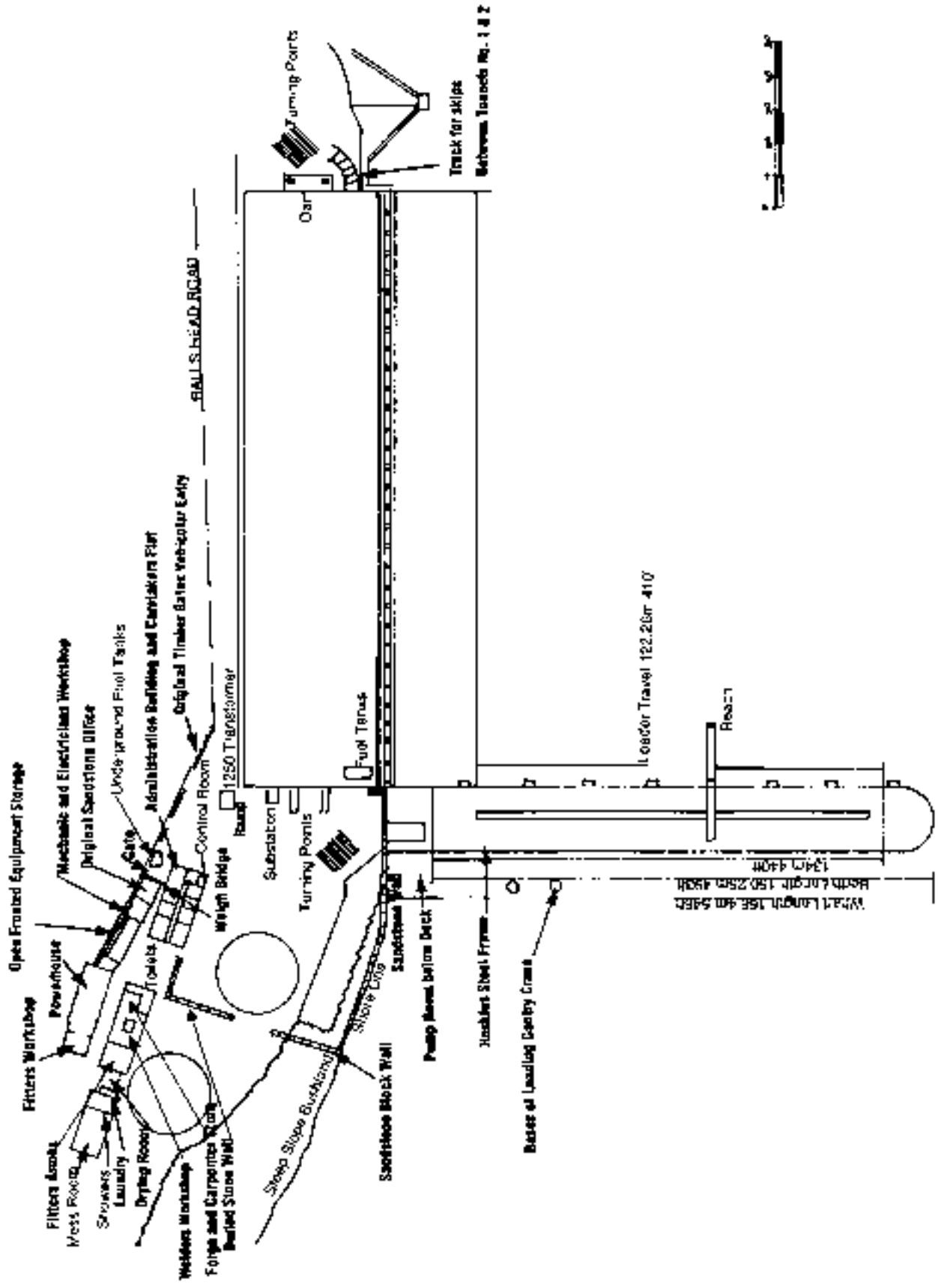


Figure 6.15 The Coal Loader site elements.

Figure 6.16
Site of the 4,000 ton bunker fuel tank, last leased by Caltex from Coal & Allied. Note the 1930s brick mess room for Coal Loader employees, as well as the railing and steps which led to the top of the fuel tank.

Figure 6.17
Western sea wall of the Coal Loader platform featuring engaged piers. The stone was excavated from the site. The upper walkway runs along the unloading gantry crane rails. The lower covered walkway provided access for the sailors from the ships, moored at the mooring dolphins.

Figure 6.18
Western perimeter wall of Coal Loader platform built from reinforced concrete with Thames River gravel aggregate. Note the base rail for the unloading gantry crane. The numbers correspond to the hoppers in the coal platform floor, and also appear on the eastern wall of the coal platform as well as on the bin gates on the reclaim tunnels. The square holes are air vents into the cellular compartments, between the sea wall and reclaim tunnel No. 1.

Figure 6.19
Square, backfilled recessed hoppers in Coal Loader platform floor. There are thirty-three hoppers. Note the deteriorated condition of the perimeter wall.

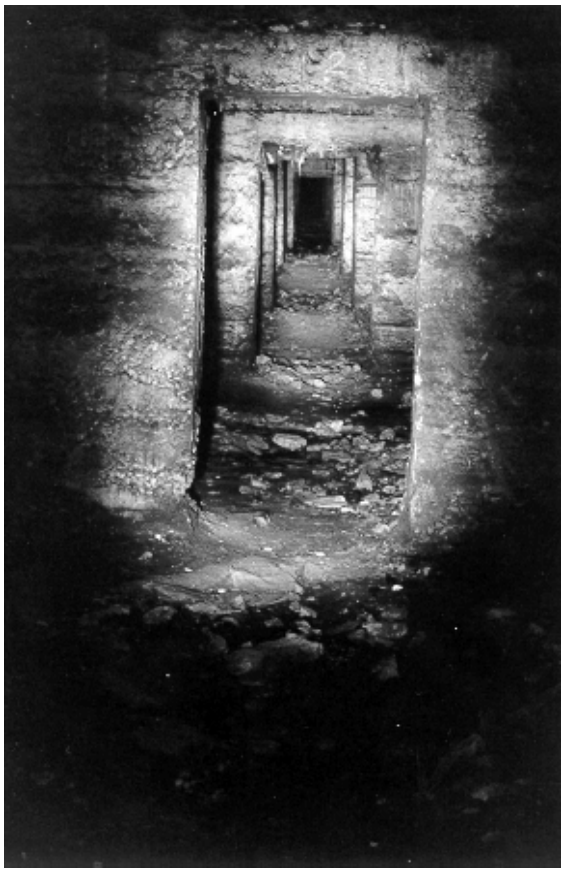


Figure 6.20 Interconnecting doorways between areas in the cellular section, behind the sea wall of the Coal Loader platform. These compartments extend the length of the structure, and are mainly built from formed concrete and aggregate.

Figure 6.21 Northern entrance to reclaim tunnel No. 1 faced with large sandstone blocks. Note the timber post and beam, to support the steel rail for the Mead Morrison travelling feeder.

Figure 6.22 Mead Morrison travelling feeder, in situ in tunnel No. 1. The Mead Morrison equipment was purchased second-hand, installed c1921, and operated until 1976.

Figure 6.23 Original bin gates in tunnel No. 1 from the base of the hoppers in the Coal Loader platform.

Figure 6.24
Mead Morrison coal skips No. 6, displayed on site. These skips were pulled on a continuous rope haulage system in a clockwise direction, south through tunnel No. 2 and north along tunnel No. 1 where they were filled with coal via the travelling feeder.

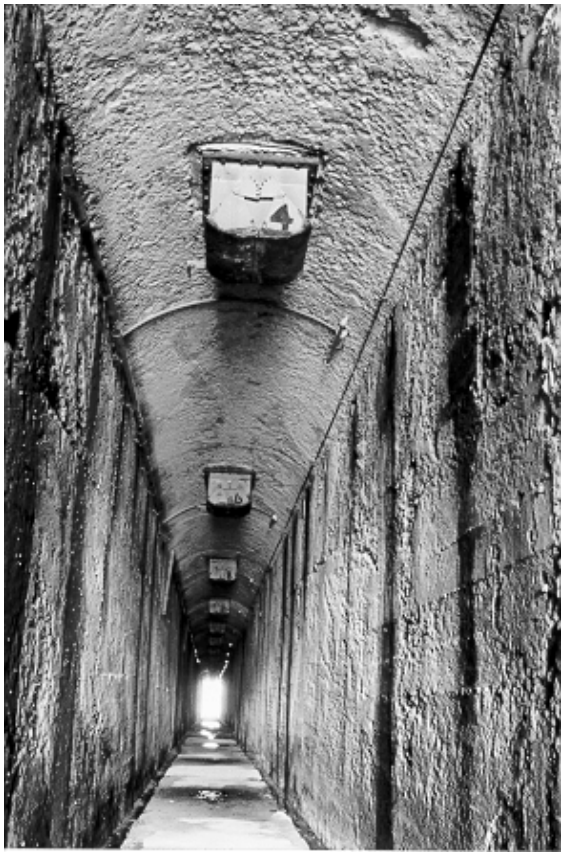


Figure 6.25
1976 geared bin gates in situ in tunnel No. 2. The numbers correspond to the hopper number above.

Figure 6.26
Signage provides clues to site operations. The sprinkler system used to reduce dust from the stockpile was innovative as it included a small quantity of detergent.

Figure 6.27
High level timber industrial wharf, reinforced with steel in 1976.

Figure 6.28
Steel structure built to support elevated tramway for the coal skips. Some of the steel is embossed with the name 'HOSKINS'. The base of the supports for the gantry loading crane remain near the outer edge of the timber deck.

Figure 6.29
Hoskins Steel, from Lithgow, used in the 1921 steel structure on the wharf.

Figure 6.30
View from Balls Head Road level, along the northern side of the coal platform, and wharf. Note the concrete foundations of 1976 conveyor structure and equipment. The original timber stairs connecting the two levels extended from the base of the photo.

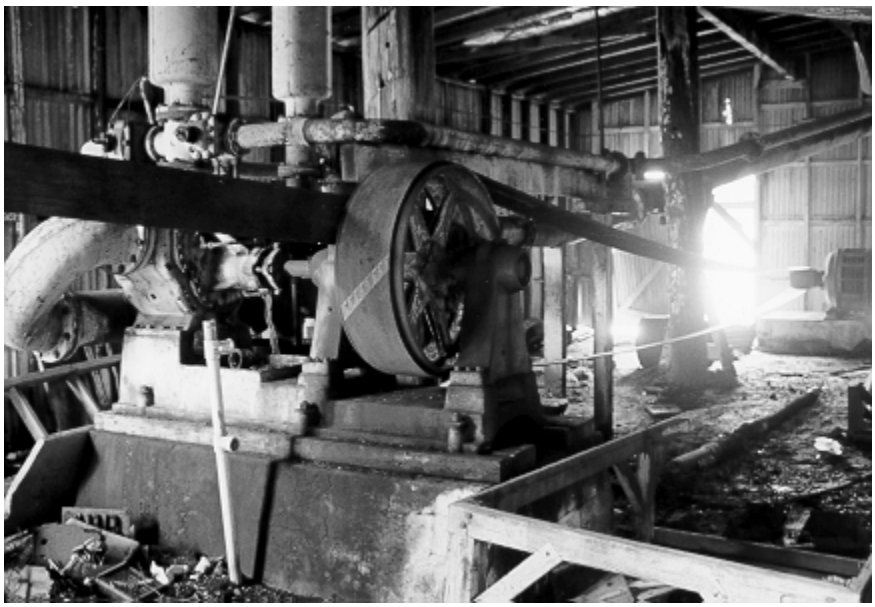


Figure 6.31
Pump, manufactured by KINNEY MFC Co of Boston, Massachusetts, and General Electric motor, USA, remain in situ in the pump room beneath the wharf.

Figure 6.32
The timber piles and bracing of the wharf have deteriorated at water level and the wharf relies on the steel pylons for support. Pipes, RHS, extend from the pump room along the length of the wharf.

Figure 6.33
powerhouse, built to contain high voltage electrical equipment. The design includes multiple features to aid ventilation.

Figure 6.34
Original sandstone site office, RHS, and brick administration building, built soon after with weighbridge between. The powerhouse and workshop/forge are in the background.

Figure 6.35
Welding shop/blacksmith's/ carpenter's workshop and WC. The central high section and steel-framed open area in foreground are original.

Figure 6.36
The ornamental walls were built by employees during the depression, and are part of the wider evidence of the depression occupation phase on the peninsula. The anchor is one of two spare English anchors displayed on site.

6.4 Endnotes

1 Sparks, Cameron, 'The BP Site at Berrys Bay', *NSHS Journal*, April 1998.
2 Linge, GJR, *Industrial Awakening*, p 42.
3 Gibbs Shallard & Co, Map of City of Sydney & Suburbs 1885, published in Max Kelly & Ruth Crocker, *Sydney Takes Shape*, Doake Press, 1978, p 39.
4 Sparks, op cit.
5 Aerial photograph, January 1930.
6 'The Accelerator', 1 July 1936.
7 Brogden, Wilf, Engineer Manager Coal Loader 1952–1982, oral testimony, November 1999.
8 GHD, p 1, November 1994, Report on existing Coal Loader platform.
9 Brogden, oral testimony, op cit.
10 Jeans, DN, I Jack, JMB Pioneer Technology, 94.
11 Mulvey, Phillip, site tenant, 1999.

7.0 Contextual Analysis

7.1 Preamble

The three industrial sites on the Waverton Peninsula offer a diverse array of natural and cultural values. This section of the Conservation Management Plan draws these values together, providing a context for the more formal application of assessment criteria in Section 8.0.

7.2 The Natural Environment

The original vegetation cover of the site can be estimated from remnants that have survived on Berrys Island and Balls Head, although the latter has been modified to a considerable degree by non-indigenous tree and shrub plantings and grassed areas. The open forest on Berrys Island Reserve is characterised by *Angophora costata* (Smooth-barked Apple), *Eucalyptus gummifera* (Red Bloodwood), *Eucalyptus piperita* (Sydney Peppermint), *Eucalyptus botryoides* (Bangalay), *Allocasuarina littoralis* (Black She-oak), and occasional *Eucalyptus resinifera* (Red Mahogany) and *Eucalyptus punctata* (Grey Gum). *Banksia integrifolia* (Coast Banksia) is common on the headland of Berrys Island and *Ficus rubiginosa* (Port Jackson Fig) is found on the lower sandstone slopes. Along the lower slopes of the eastern side of the BP site are remnants of the vegetation that was once common on the more sheltered sites of the lower north shore. Species would have most likely included *Elaeocarpus reticulatus* (Blueberry Ash), *Glochidion ferdinandi* (Cheese Tree), *Pittosporum undulatum* (Sweet Pittosporum), *Notelaea longifolia*, *Dodonaea triquetra*, *Pittosporum revolutum*, *Polyscias sambucifolia*, *Clerodendum tomentosum* and *Grevillea linearifolia.*

7.2.1 The BP Site

The majority of the BP site has been denuded of natural vegetation and the original topography has been extensively modified by excavation, landfill and paving. Along the lower, eastern slopes of the site, leading down to the waters of Berrys Bay, are remnants of the original natural vegetation, albeit with a modified understorey.

7.2.2 The Caltex Site

The slopes of the Caltex site support a mix of remnant native vegetation with a weed-infested understorey. The steep slope leading down to the foreshore, between the Coal Loader and HMAS Waterhen, includes some fine specimens of *Angophora costata*.

7.2.3 The Coal Loader Site

The Coal Loader site has been largely denuded of native vegetation in the past. Parts of the site have been revegetated in recent years with a mix of native ornamental species, both local and introduced. The area to the south of the Coal Loader supports regenerating native vegetation with a weed-infested understorey.

7.3 Aboriginal Heritage

The Aboriginal sites located within the study area are variously disturbed sheltered occupation sites containing shell midden deposit.

These sites demonstrate the Aboriginal use and history of the area. They are part of a holistic approach to understanding and demonstrating the history of the area.

The known Aboriginal sites demonstrate the Aboriginal occupation use of their land and are important to Aboriginal people because of this link with the land. The sites are also important to the Aboriginal community and to the wider community because of their capacity to educate future generations about Aboriginal links with the land.

The midden sites and the engraving site have research potential, in that excavation or remedial works could reveal details about the past, including information about length of occupation, and seasonal use of the landscape, for example.

The engraving site at the entrance to the Coal Loader site is an example of a particular type of art uncommon to the Sydney region. Some of the figures may represent mythological beings or may have had ceremonial importance. Such examples are increasingly rare in the metropolitan area.

The rock engravings are typical of Sydney rock engravings which have their own aesthetic properties. Sydney rock engravings are distinguished by their linear 'outline' nature, and their naturalistic style which incorporates their depiction of objects at a life-size scale. Sydney engravings generally comprise animals and fish, people and weapons or hunting and gathering equipment, and/or heroic or mythological figures.

Their state of preservation varies from excellent to poor. While we cannot say with certainty that there is a ceremonial or mythological component to the art, the engravings may have been created as part of an important ceremony, and may tell a story about the importance of the place and the natural resources of the area to the people who made the engravings.

Well-preserved engravings on the foreshores of Sydney Harbour can be considered to be rare, in that there are now far fewer of them than there once were. Many have been damaged, removed or built over.

The significance of the Aboriginal sites that have been identified within the study area lies in their association with a number of other sites located in the immediate area. Collectively, the sites along the peninsula represent a diverse range of site types in a relatively natural context.

The Waverton Peninsula is a representative example of the peninsulas around the Parramatta River and Sydney Harbour which were important to the earliest European settlers because they were the interface with waterways and their comparatively fertile river flats. They are places associated with

the conflict between Europeans and the Aboriginal owners and where the introduction of European disease decimated the Aboriginal populations.

The prehistoric Aboriginal sites along the Peninsula demonstrate a wide range of Aboriginal cultural practices (for example, art works, occupation sites and a burial). A suite of sites of diverse types within relatively close proximity has research potential and archaeological significance. Aboriginal sites which have survived in the Sydney area and along the shores of the Parramatta River, in particular, represent a small percentage of the original number. They represent a depleted resource and are relatively rare.

Irrespective of their type or condition all sites are significant to the Aboriginal community. They are valued as a demonstration of the Aboriginal ownership of and connection to the land. They have enduring spiritual and educational value to the Aboriginal community.

7.4 Historical Association

The Waverton Peninsula Study area encompasses what was the estate of Edward Wollstonecraft and later Alexander Berry. Berry and Wollstonecraft arrived in New South Wales as general merchants and began operating out of Sydney, buying and selling goods from England. When in Sydney their ships would anchor in what was later named Berrys Bay. In 1820 Wollstonecraft was granted land on the north shore, within which the study site is situated. Wollstonecraft built a stone cottage named Crows Nest and a wharf close to present-day Wood Street which, although to the north of the site, represented the start of commercial and industrial usage in this area.

In 1827 Berry married Wollstonecraft's sister, further cementing the relationship between the business partners. This was illustrated in 1829 when the men transferred their business interests from their Sydney office across the Harbour to Wollstonecraft's Crows Nest property where they built a new stone wharf and stone warehouse, plus a caretakers cottage. All three convict-built structures were on the site of the current study area, within the BP precinct. They represent the start of 170 years of continual industrial use within the study area. The wharf, cottage and warehouse were eventually demolished during the 1930s to make way for oil storage tanks on the BP site, with the stone from the warehouse being recycled on site as a bund wall around one of the oil tanks. This wall still stands on the site, leaving a physical reminder of the convict labour utilised by Sydney's earliest merchants to establish their businesses.

Following Wollstonecraft's death in December 1832, his sister Elizabeth inherited his land with Berry serving as his executor. Berry continued to operate their business from the storehouse until the 1850s when he began to lease the property to other operators. From 1853 the P&O Company and the General Screw Steam Ship Company operated from Berrys Bay, using the site as a coal depot for their steam ships. Coal storage areas with access to the water were of growing importance from the early 1850s as steam ships began to visit and operate from Australian ports. In 1852, the P&O

Company's Royal Mail SS *Chusan* arrived in Sydney as the first steam ship to make the journey between England and Australia.

In 1873 Alexander Berry died after which his brother David managed the estate. David Berry himself died in 1889 and the estate was managed from then by his cousin John Hay. It was under the direction of Hay that the Berry Estate was finally put up for subdivision. The estate was unique in Sydney, having remained in the possession of the same family for so many years, as well as remaining as a complete entity for so long, being one of the last large granted estates in Sydney to be finally broken up. From 1895 Hay began advertising for the subdivision and sale of land with an agreement finally being reached with the NSW State Government in 1906. With control of the land, the government immediately set about seeking ways to gain the highest return for it.

7.4.1 BP Storage Site

Construction at the BP Oil Storage site began in 1923 with the installation of the first storage tank. The BP site, originally operated by the Anglo-Persian Oil Company, was sited on and around the position of Berry's original storehouse. The site was leased from the Anglo-Persian Oil Company from the late 1920s by the Commonwealth Oil Refinery Ltd (COR), an Australian Government owned company who had already established a refinery in Victoria. In 1936, under a program of expansion, COR demolished the former Berry's store and cottage to make way for a new storage tank. The stone from the storehouse was reused on the site to build a bund wall around the new tanks to prevent any major spillage. The recycling of the stone by the company was acknowledged at the time as a measure to retain the sites links to its mercantile and convict past. With subsequent developments on the site, and in the areas around the depot, the stones with their convict origins remain as physical reminders of some of the earliest industrial workings on Sydney's north shore.

By 1939 there were eleven tanks on the site, increasing to thirty-one tanks by 1967. The site was controlled by the Anglo-Iranian (formerly Persian) Oil Company's parent company British Petroleum (BP) from this time until its closure. The siting of the oil storage site meant that its physical development was closely monitored by the thousands of commuters who travel to and from the city via the Harbour every day, making it one of Sydney's most notable waterfront industrial sites.

Coupled with the Coal Loading Facility and the Caltex site, the BP Oil Storage site stood as a physical reminder of the working nature of the Harbour and of the Harbour's historical relationships with the maritime trades that have dominated the Harbour since the arrival of Europeans.

7.4.2 The Caltex Site

In 1919, at the same time as construction was proceeding with the Coal Loader in Balls Head Bay, a newspaper article announced the proposed construction of an oil reserves storage site adjacent immediately to the north. The oil reservoirs were to service those ships that burnt liquid fuel instead of coal, meaning that any ship type could be refuelled at the facility.

By c1953 Golden Fleece, the Australian owned petroleum company, was operating a lubricating oil bulk storage installation at Balls Head Bay. Golden Fleece had been established by the Melbourne-based shipping agent and general merchant Harold C Sleigh in 1913, and by 1929 had expanded enough to warrant the establishment of bulk oil terminals in Melbourne, Sydney and Adelaide. The Balls Head Bay terminal was established during a period prior to the establishment of the multinational oil companies, and represented a significant hold over the domestic oil market by an Australian Company.

In 1981 Caltex purchased Golden Fleece outright for $75.2 million, with Caltex merging with Ampol in 1995.

7.4.3 Balls Head Coal Loader

The first major development on the study site under the direction of the State Government, and the first on the western side of the Peninsula, was the Balls Head Coal Loader. Still standing, the Loader and wharf remain as potent reminders of the development of Sydney Harbour as a working harbour, and as one of Australia's major industrial ports. The Coal Loader was constructed from 1917 by the Sydney Coal Bunkering Company, a subsidiary of the Union Steam Ship Company of New Zealand, with the purpose of storing coal and providing the modern facilities necessary to load steamers visiting the port. Coal was loaded onto waiting ships via a cable trolley system that extended along the wooden wharf in Balls Head Bay. The cable-driven trolley cars were installed from 1920 by Mead Morrison of Chicago, USA, and were designed to deliver 700 tons of coal per hour. Operating until decommissioned in 1976, the original cable line tramway remained as one of the few cable tramways still operating in the world outside of San Francisco.

In 1976 the original coal loading equipment was replaced by a modern loader which used conveyor belts and a travelling ship loader. The new system allowed for substantially higher quantities of coal to be delivered to waiting ships, while retaining and reusing some of the original features of the 1917 coal loading plant. The current coal loader also stopped operating in 1992 ending 75 years of continuing service providing coal to ships in Sydney. During their time in service the wharf and loading system became a landmark feature as a distinctive industrial site on the Harbour.

7.5 Aesthetic Values

7.5.1 General

All three sites have aesthetic significance in their own right: the BP site contains modified topographic features with unusual visual qualities, for example the cuttings for the storage tanks; the Caltex site has attractive foreshore and remnant indigenous vegetation, such as *Angophora costata* trees; and the Coal Loader site has striking industrial elements including the tunnels and the jetty. All three sites offer important and, in many cases, spectacular views of adjacent bays, water-based activities and the Harbour.

7.5.2 The BP Site

There are high aesthetic values in the views from the BP site, both the expansive views from the upper levels, over Sydney Harbour to the CBD, and the more enclosed views into Berrys Bay, with its interesting variety of boat-building and repair operations and water-based activities. There are also aesthetic values in the unusual landforms created by the semi-circular cuttings for storage tanks on the eastern side of the site, in the sandstone facing of the concrete bund wall and in the remnant natural vegetation of the lower slopes of the eastern side of the site, leading down to the western foreshore of Berrys Bay. The stark form of the parapet skyline created by the upper concrete retaining wall gives the place a distinctive aesthetic quality which immediately identifies it as a built, industrial site. The vegetation on the steep slopes east of Larkin Street is dominated by tussocks of *Pennisetum alopecuroides* (Swamp Foxtail), the leaves of which shimmer in the afternoon light, providing an attractive foil to the otherwise stark landscape of the cleared areas.

7.5.3 The Caltex Site

The small Caltex site contributes to the overall Waverton Peninsula ensemble, providing rare remnant natural foreshore, bushland and Harbour views, both to and from the site.

7.5.4 The Coal Loader Site

The Coal Loader wharf has landmark qualities and shows evidence of a defunct industrial process. The timber structure of the Coal Loader wharf:

- is aesthetically distinctive;
- is outstanding because of its size; and
- is a rare example of its scale and type.

The timber structure of the Coal Loader wharf provides opportunities for a public viewing/fishing platform but its condition poses constraints in terms of conservation costs and public safety

The Coal Loader tunnels and stonework have aesthetic qualities and show evidence of a defunct industrial process. Similarly the strong repetitive forms of the engaged piers and gantries on the western elevation of the Coal Loader impart the structure with aesthetic values and further evidence of the mode of operation of the Loader.

The upper surface of the Coal Loader provides interesting views of the Harbour and Anzac Bridges and opportunities for community activities and site interpretation.

7.6 Research Potential

The site has limited potential for natural environmental research but does afford opportunities for research into the revegetation of denuded areas and into weed control and bush regeneration of currently weed-infested areas.

Both collectively and as individual sites, the Waverton Peninsula industrial sites have considerable potential to yield valuable information through scientific investigation. All of the sites retain some physical evidence of natural landform and vegetation. All three include physical evidence illustrating the major maritime and industrial activities undertaken.

7.6.1 The BP Site

The BP site is much modified and, apart from a small section of foreshore bushland (and some relic sandstone topography), contains relatively minor evidence of the natural environment. However, the site may afford opportunities for research into revegetation of denuded areas and into weed control and bush regeneration.

There are no known Aboriginal sites. However, it is possible that buried foreshore midden exists beneath later fill along the reclaimed areas of the southern foreshore.

The BP site offers substantial historical archaeological research potential, arising from the use of the site by Wollstonecraft and Berry during the early to mid-nineteenth century. Specifically, there is high potential for in situ survival of Berry's stone store and an associated stone cottage. There may be related deposits or ancillary features such as wells, drains and rubbish pits. The stone from the store is present on site as facing for a bund wall. These stones are reputed to have 'convict marks' and if the wall or parts of it were to be disturbed, the obscured faces may also yield new evidence.

Other archaeological features which may exist as buried foundations along the southern foreshore include Berry's sandstone quay-style wharf, a stone store known to have been standing prior to 1923 and Berry's stone wall.

All of these elements and the deposits that may be associated with them have potential to yield additional information about the history of this site, nineteenth-century industrial activities undertaken, and the role of Sydney Harbour in Sydney's maritime and wider economic history, which are unavailable through traditional documentary research.

7.6.2 The Caltex Site

The scientific research potential of the Caltex site derives primarily from its rarity as a place with relatively undisturbed natural foreshore and to Aboriginal midden/shelter sites. The natural foreshore and relic (though weed infested) vegetation provides opportunities for scientific study. (The deposits associated with the Aboriginal sites are already addressed in Section 7.3 above.)

7.6.3 The Coal Loader Site

The extensive array of surviving buildings, structures, works and landform modifications on the Coal Loader site provide an extraordinary opportunity to investigate and understand the operations of this major industrial site, using physical evidence as the basis for investigation.

The built elements themselves all display construction technologies and available materials for their time. Examination of materials, for example the English flints used in the Coal Loader platform concrete, can provide information that complements the relatively scant documentary resources.

Similarly, the surviving plant and equipment, especially the operating elements associated with the coal bunker, the gantried crane relics and the Mead Morrison pumping equipment have potential to contribute to an understanding of the operations of this site and to maritime industrial technologies generally.

The modified landform and network of roads/tracks on the site, as well as the configuration of buildings and other structures are important contributors to this understanding.

As with the other three sites, the remnant natural topography and vegetation of the Coal Loader site (though less) continues to have scientific research potential relevant to an understanding of the Waverton Peninsula and Sydney Harbour.

7.7 Social Values

Social value is concerned with strong or special meanings for particular groups or communities, arising from social, cultural or spiritual associations. Assessing social value involves identifying and consulting with communities and groups of people to understand these associations and to understand whether the values that arise reside in the fabric of the place or in other aspects such as its use or accessibility.

Recognising social value is based on an acknowledgement that places may have an importance to people with direct experience and knowledge of a place and that this significance transcends utilitarian values. Social value is seen as a value held by today's community. Whilst historical research may be able to demonstrate considerable longevity and continuity of association, this is not essential to demonstrate social value.

Sources used in understanding the social value of the Waverton industrial sites have included consultation with local informants, review of correspondence on Council files, review of input to the Masterplanning process, three stakeholder forum meetings, formal community consultation sessions and informal discussion with local residents. During these activities, particular emphasis was placed on the historic, aesthetic and scientific values of the three industrial sites, as well as on concerns about community amenity and future management planning. Where appropriate and relevant, these other values and concerns are accommodated elsewhere within this Conservation Management

Plan. However, the following list of points, selected from both formal and informal advice, gives some flavour of the community esteem within which these sites are held:

- Waverton has always been a village community;
- the Peninsula is a rare gem of public open space in the centre of Sydney;
- people, parkland and working waterfront;
- the sites provide evidence of our past;
- we can look out and look in;
- marvellous high viewing points of Harbour bays, boats and bush;
- Balls Head Bay has a natural heritage as a survivor of devastation in the 1930s and weed infestation;
- there is Aboriginal association;
- diversity of industry;
- curved walls on the BP site are heritage, but every bit of industrial junk isn't;
- address the needs of all sections of the community;
- must be accessible for recreation;
- easy links from Waverton Park, Balls Head Reserve and from Balls Head Reserve through the Coal Loader site;
- the place has a unique combination of environmental factors;
- provide access into and through previously closed site;
- the Coal Loader is highly significant to Sydney and was the only such plant in the vicinity. It had a major impact on the lives of local people (coal dust, trucks, for example);
- the character of the working Harbour: shipyards, yachts, ferries, foreshore walks, splendid water views, seeing the sun set in the west;
- the Harbour frontage is highly valuable with rare, wonderful vistas. Bushland softens the hard edges; and
- the site has a dynamic quality at a number of levels and must continue to change.

It is clear from the consultation and discussion completed that all three sites, in conjunction with Balls Head Reserve and as part of the Waverton Peninsula, are held in a high level of contemporary community esteem. It is recognised as possible that the place has additional social values to other communities, who were not specifically consulted during this study. These might include, for example, former workers and/or the wider North Sydney or Sydney population.

8.0 Assessment of Significance

8.1 Preamble

Cultural significance is a term used to describe the heritage value or importance of an item. This value is defined in the Australia ICOMOS *Burra Charter* as 'aesthetic', 'historic', 'scientific' or 'social' value for the past, present or future generations.'

The NSW Department of Urban Affairs and Planning and the NSW Heritage Office have developed a detailed set of criteria for assessing items of the State's environmental heritage. There are six criteria, the first four identify the Values of Significance and the final two, Degrees of Significance. To be assessed as significant, an item must qualify under one criterion from the Value of Significance and one from the Degrees of Significance. It must also retain the integrity of its key attributes of significance. The criteria are as follows:

Group 1: Nature of Significance

Criterion 1 – historical significance (evolution and association). An item having this value is significant because of the importance of its association with, or position in the evolving pattern of our cultural history.

Criterion 2 – aesthetic significance (scenic/architectural qualities/creative accomplishment). An item having this value is significant because it demonstrates positive visual or sensory appeal, landmark qualities and/or creative or technical excellence.

Criterion 3 – technical/research significance (archaeological, industrial, educational, research potential and scientific significance values). Items having this value are significant because of their contribution or potential contribution to an understanding of our cultural history or environment.

Criterion 4 – social significance (contemporary community esteem). Items having this value are significant through their social, spiritual or cultural association with a recognisable community.

Group 2: Degree of Significance

Criterion 5 – representativeness. Items having this value are significant because they are fine representative examples of an important class of significant items or environments.

Criterion 6 – rarity. An item having this value is significant because it represents a rare, endangered or unusual aspect of our history or cultural environment.

The following sections of this document indicate where the relevant heritage assessment criteria are satisfied at the BP site. The format used follows the structure of the *Heritage Assessments* Guidelines published as part of the *NSW Heritage Manual*, considering the 'Degree' Criteria (representativeness and rarity), in relation to each of the 'Nature' criteria. In each case, an indication

is given of the inclusion guidelines that are satisfied. This analysis provides the basis for the ensuing summary statements of significance.

8.2 Application of Criteria

8.2.1 Criterion 1: Historic Significance (Evolution and Association)

Significant because of the importance of an association with, or position in the evolving pattern of our cultural history – with phases, activities or people.

The Waverton Peninsula is one of the areas impacted by Europeans at an early stage in the settlement of New South Wales. Aboriginal sites within the study area and in the vicinity demonstrate the evolving pattern of Australian cultural history.

The BP site is associated with Edward Wollstonecraft, Merchant, and Alexander Berry and the agricultural activities at the Coolangatta Estate in the Shoalhaven, as the site was the receiving end for grain from this important nineteenth-century property. (Berry had a convict built sandstone block storage building and stone wharf, overseers cottage, a stable and at least two wells.)

The BP site is associated with the nineteenth-century alienation and twentieth-century subdivision of large estates on the northern side of Sydney Harbour.

The BP site is associated with the government and private venture aimed at developing an oil refinery in Australia, involving the Anglo-Persian Oil Company, Commonwealth Oil Refineries Limited, and BP Australia Limited.

The BP site is significant for the 1930s decision to re-use the stone from Berry's Store to build the extant bund wall. It was recorded at that time as retaining some of the site's history and as such is an example of conservation practice of that time. The stones were hand hewn by convicts and are said to be identified with convict marks.

The BP, Caltex and Coal Loader sites represent early twentieth-century ambitions to develop the district as an industrial area.

The BP site is associated with the early use of torpedoes for Australian defence.

The Coal and Allied site is associated with the development of coal as an export industry and became the second largest export facility of this major company.

The Coal and Allied site represents the importance of coal as a fuel for the maritime industry during the first half of the twentieth century.

The Coal and Allied site is associated with major shipping and coal companies, namely the Sydney Coal Bunkering Company, a subsidiary of the Union Steam Shipping Company, Wallarah Coal Company Ltd which operated a mine at Catherine Hill Bay, south of Newcastle, the J & A Brown and

Abermain Seaham Collieries (JABAS), which subsequently became a subsidiary of Coal and Allied Industries, that upgraded the coal loader in 1976 and operated it profitably until its closure in 1992.

The Coal Loader site is associated with the engineering firm Malco Industries of Adelaide, which received an award from the Institution of Engineers for their work to upgrade the Coal and Allied site in 1976.

The Coal and Allied Coal Loader site survives as a significantly intact group of buildings and structures that were purpose designed to transfer coal.

The powerhouse and associated offices and workshops represent the support operations for an early twentieth-century coal handling facility. The mess room and laundry site represent the change in personnel requirements and the remnant singe is indicative of work practises.

The Caltex site, formerly HC Sleigh, is significant for its association with HC Sleigh, who established Golden Fleece.

> *Significant because they represent well, an important class of items or environments that have historical/associative significance*

The three industrial sites, in combination, attest to the importance of Sydney Harbour's working waterfront.

The BP site has been associated with the bulk storage of fuel since the 1920s when the Anglo Persian Company commenced operations until decommissioning in 1994 and represents the early twentieth-century proposal to develop North Sydney as an industrial area.

The BP site is associated with the rocky outcrop referred to as 'Gibraltar' in the early half of the twentieth century, which is indicative of the impact of the war on the community consciousness.

> *Significant because it represents a rare, endangered or unusual aspect of our history or cultural environment.*

The sandstone bund wall on the BP site has sandstone blocks reputedly with convict marks.

The Coal Loader site is significant as one of the first, and one of the few surviving shore based coal loading facilities in Sydney Harbour.

The steel unloading structure, which remains in situ on the Coal Loader wharf, is a rare example of steel from the 'HOSKINS' Lithgow works. The Lithgow iron and steel works were the first commercial works in Australia.

The Coal and Allied pump room, equipment, associated pipes and fuel tank store sites represent the emergence of oil as a maritime fuel.

Historic Guidelines Satisfied

- shows evidence of a significant human occupation or activity;
- is associated with a significant activity, event, historical phase or person;
- maintains or shows the continuity of an historical process or activity;
- has the principal characteristics of an important class or group of items;
- is outstanding because of its setting, condition or size; and
- is a scarce example of a particular style, custom or activity.

8.2.2 Criterion 2: Aesthetic Significance (Scenic Qualities/Creative Accomplishment)

Significant for strong visual or sensory appeal or cohesion; landmark qualities; creative and/or technical qualities; creative and/or technical excellence.

The BP and Coal Loader sites are prominent harbourside industrial landmarks.

The unusual modified landforms of the BP site, including the stark form of curved cuttings and straight lines of massive masonry walls, impart a distinctive aesthetic value, making the sites instantly recognisable as places of industry.

The BP and Coal Loader sites provide dramatic views across Sydney Harbour. The BP site affords particularly fine views down the Harbour to the Sydney CBD.

The Coal and Allied Coal Loader platform has been a prominent feature of the Balls Head landscape since 1917. This prominence has been expressed by architects, and photographers, and even Henry Lawson wrote a poem opposing the disruption to the native bushscape.

The Coal Loader Wharf is a dramatic, visually prominent Harbour icon.

The Coal and Allied site demonstrates twentieth-century construction technology using local sandstone and introduced materials, including Thames River Gravel, often brought from the UK as ballast.

Parts of the BP and Caltex sites have strong visual appeal deriving from original foreshore landform and remnant native vegetation.

The Aboriginal rock engravings and art sites in the vicinity of the study area are significant items of Aboriginal creative endeavour.

Significant because it represents an important class of significant items or environments.

The Waverton Peninsula, including the three industrial sites, is typical of the combination of original topography, modified landforms and industrial relics which formerly characterised much of Sydney Harbour.

The Coal and Allied site illustrates the significance of Sydney Harbour as a major shipping port. In turn, the Coal and Allied site itself influenced the operations of the maritime activities in the harbour and beyond.

Significant because it represents a rare, endangered or unusual aspect of our history or cultural environment.

The BP, Caltex and Coal Loader sites display sculptural landscapes of both natural and built features formed to accommodate large scale fuel storage tanks and industrial structures. The concrete, brick and stone retaining walls on the BP site are strong visual features that communicate the industrial use of the site, as does the large sandstone block coal platform and high industrial wharf on the Coal Loader site.

As harbourside industrial sites are progressively developed for residential purposes, remnant industrial sites grow in rarity. The opportunity to retain and conserve major industrial places in public ownership presents a rare chance to distinguish the Waverton Peninsula from other Harbour foreshore public lands.

Aesthetic/Creative Guidelines Satisfied

- shows, or is associated with, creative or technical innovation or achievement;
- is aesthetically distinctive;
- has landmark qualities;
- has attributes typical of a significant process, design or technique;
- is outstanding because of its setting, condition or size; and
- is a scarce example of a particular style, custom or activity.

8.2.3 Criterion 3: Technical Significance and Research Potential (Archaeological, Educational, Research Potential and Scientific Values)

Significant because of its contribution or potential to an understanding of our cultural history or environment.

The BP, Caltex and Coal Loader sites have potential to contain archaeological deposits related to Aboriginal occupation.

The midden/shelter sites within the Caltex site have high potential to yield information about Aboriginal use of the area, through archaeological investigation.

The western section of the BP site, and beyond the current site boundary, to the Woodley site and the house of WG Mathews, has the archaeological potential to reveal information about each phase of the site's historic occupation.

The BP site demonstrates land reclamation and the common practice of straightening the Harbour foreshores to create additional, even work space.

The BP site displays rock excavations, terraces and retaining walls that demonstrate how increasing numbers of fuel tanks were accommodated on a geographically steep and confined site and together create a dramatic, modified landscape.

The BP site displays examples of encircling drainage channels and concrete footings for tanks which demonstrate the scale of the tanks and the ecological requirements for their installation.

The 1962 wharf for BP uses Rankin Fenders made from rubber and steel to provide great flexibility to wharf structure and therefore reduce the load on the piers.

The BP site demonstrates the environmental and legal requirements associated with the storage and handling of fuel through the in situ survival of bund walls, drainage canals, channels and tanks with weirs, baffles and valves.

Information may be gained on the BP site about the evolution of wharves, starting with Wollstonecraft's timber wharf, Berry's quay-style sandstone wharf through the three timber wharves, to the steel Dolphin wharf.

Significant because it represents an important class of significant items or environments.

The three industrial sites represent the use of harbour foreshores for industrial maritime activity for more than a century.

The Coal and Allied site represents the change from coal bunkering by lighter, or coal barges that travelled to the ships, to the ships coming to the shore based coal stockpile for refuelling.

Significant because it represents a rare, endangered or unusual aspect of our history or cultural environment.

The presence of Aboriginal rock carvings and other types of site in proximity is rare in the Sydney context. The possibility of provenanced artefact collections from this area is highly significant.

The Coal and Allied site contains rare, early sandstone structures for stockpiling and handling coal.

The Coal Loader wharf, together with the steel support structure for the unloading of coal skips and subsequently the coal conveyor, is rare evidence of the early twentieth-century practise of coal bunkering of ships.

The Coal Loader site represents the process of handling coal for ship bunkering through the in situ survival of the Coal Loader platform, remnant steel equipment and infrastructure, including the high level industrial timber wharf, with Hoskins steel 'unloading' framework, pump room equipment, as well as the sandstone boundary and sea walls, first sandstone office, brick administration building, power house, workshop, mess room, weighbridge, and sandstone cuttings, and terraces which housed two huge fuel tanks.

The Coal and Allied loader site demonstrates early to mid twentieth-century oil bunkering technique, through the intact pump room equipment and associated pipes, wharf and rock excavations and remnant ladder associated with the two fuel storage tanks.

The Coal and Allied site demonstrates early to mid twentieth-century coal handling technology through the in situ structures and remnant original Mead Morrison equipment.

Technical/Research Guidelines Satisfied

- is yielding or has the potential to yield new or further substantial scientific, historic, cultural, technical and/or archaeological information;
- provides evidence of past technologies or culture or human behaviour patterns that is unavailable elsewhere;
- has attributes typical of a particular way of life, philosophy, custom, process, design, technique or activity;
- is part of a group which collectively illustrates a significant type;
- provides evidence of a defunct way of life or process;
- demonstrates designs or techniques of exceptional interest; and
- is a scarce example of a particular style, custom or activity.

8.2.4 Criterion 4: Social Significance (Contemporary Community Esteem)

Significant through association with a contemporary community for social, spiritual or other reasons.

The Waverton Peninsula represents an indelible link between the past and the present for the Aboriginal community.

The Waverton Peninsula and the BP, Caltex and Coal Loader sites are places held in high esteem by the local community. In addition to their other heritage values, these places are now regarded as major community assets which are being returned to the people as the result of sustained and effective community action.

The three industrial sites are important components of the highly-valued Sydney Harbour foreshore.

The Waverton Peninsula and the three industrial sites provide an important local opportunity for enjoyment of natural, Aboriginal and historic resources.

The presence of the three industrial sites had an impact on the Waverton area, particularly through the increased industrial and maritime activity.

The BP and Coal and Allied sites were associated with the provision of company-owned housing nearby on Balls Head for the site managers, engineer and staff.

Work schemes were conducted on the Coal Loader site to retain personnel during the 1930s depression; building the ornamental cornet block walls adjacent to the administration building and again during the 1960s slump in the coal industry; painting the crane and producing the 'Coal-a-matic'. These events demonstrate an unusual level of social concern.

Significant because it represents an important class of significant items or environments.

The Waverton Peninsula industrial sites are integral elements of the Peninsula's 'sense of place'.

These three sites are also representative of community concerns for the Harbour foreshore.

Significant because it represents a rare, endangered or unusual aspect of our history or cultural environment.

The Waverton Peninsula industrial sites provide an important and rare opportunity for conservation and interpretation of the once widespread, but rapidly diminishing practice of use of harbour foreshore for industrial pursuits.

Social Guidelines Satisfied

- is important for its associations with an identifiable group;
- is crucial to a community sense of place;
- has the principal characteristics of an important class or group of items valued by the community; and
- is a scarce example of a particular style, custom or activity esteemed by a community.

8.2.5 Levels of Significance

The NSW *Heritage Assessment Guidelines* include the terms Local, Regional and State which relate to the geographical and social context of an item's significance.

Items of Local Heritage are significant in a local historical or geographical context or to an identifiable contemporary local community (that is, to North Sydney and Waverton Peninsula).

Items of Regional Heritage are significant in a regional historical or geographic context or to an identifiable regional contemporary community (that is, to Sydney Harbour).

Items of State Heritage relate to the state-wide history, geography or identifiable contemporary community (that is, to the history and people of New South Wales).

The relative significance of the BP, Caltex and Coal and Allied industrial sites on the Waverton Peninsula have been assessed as follows:

BP Site

Nature of Significance	Level of Significance		
	Local	Regional	State
Historic	Rare	Representative	Representative
Aesthetic	Rare	Rare	Rare
Technical	Rare		
Social	Rare	Rare	

Caltex Site

Nature of Significance	Level of Significance		
	Local	Regional	State
Historic	Representative		
Aesthetic	Representative		
Technical	Representative	Representative	
Social	Representative		

Coal & Allied Site

Nature of Significance	Level of Significance		
	Local	Regional	State
Historic	Representative	Representative	Representative
Aesthetic	Rare	Rare	Rare
Technical	Rare	Rare	Rare
Social	Representative		

8.3 Summary Statements of Significance

8.3.1 Waverton Peninsula

The Waverton Peninsula industrial sites are prominent visual icons which attest to the historic importance of waterfront industry in North Sydney.

The natural topography, remnant vegetation, Aboriginal heritage and phases of industrial development combine to provide a rich, layered cultural landscape.

8.3.2 BP Site

The BP site is a prominent habourside industrial landmark distinguished by physical changes to underlying topography, wrought by nearly two centuries of European use and development.

The BP site is significant for its historical association with eminent merchants Edward Wollstonecraft and Alexander Berry. The site and neighbouring Woodley's Boat Shed property, as well as the site of WG Mathews house, retain physical evidence of this early industrial occupation.

The BP site also has the archaeological potential to reveal information about subsequent occupation including: The General Screw Steam Company, WG Mathews, Berry's overseer, distillery, torpedo depot, and the liquid fuel storage occupation commencing with the Anglo-Persian Oil Company, Commonwealth Oil Refineries and British Petroleum.

The site is significant for its ability to demonstrate the physical requirements and scale of the oil storage facility, evident by the remnant rock cuttings, brick and concrete retaining walls, terraces and level work areas, the provision of concrete channels, bund walls and drainage canals, designed to direct and contain liquid fuel.

The BP site provides major views of Berrys Bay, Sydney Harbour and the Sydney CBD.

The site is associated with Aboriginal occupation, of which no physical evidence is known to survive.

8.3.3 Caltex Site

The Caltex site is significant for its remnant natural foreshore landform and vegetation, particularly as a place that provides views to and from a largely undeveloped foreshore.

The Caltex site contains two known Aboriginal sites which have contemporary values for the Aboriginal community and high research potential.

The site is significant for its association with HC Sleigh, the founder of Golden Fleece, and its association with the Coal Loader site, as the operators of the bunkering fuel facility on the adjoining Coal Loader site.

8.3.4 Coal Loader Site

The Coal Loader site is a major maritime and industrial landmark of Waverton Peninsula and Sydney Harbour. The place has strong visual character, enriched by its prominent role in the area's local history.

The Coal Loader site is significant for the aesthetic qualities of its terraced landform, massive sandstone walls, high level industrial wharf, and 'street' of site buildings along the ridge line.

The Coal Loader site is significant for its ability to demonstrate the practise of coal bunkering in the early twentieth century through the extant Coal Loader platform, high level wharf with its remnant Hoskins steel frame and associated site buildings, walls and work areas. The site also represents the transfer from coal to oil fuel for shipping during the first half of the century through the intact pumping equipment and sculptured fuel tank sites.

The site is associated with the 1970s expansion of the export coal industry, which outgrew the capacity of the site by the mid 1980s.

The Coal Loader site is significant for its association with influential people and companies concerned with coastal and international shipping and the coal industry.

The Coal Loader site is significant for its remnant second-hand equipment manufactured by Mead Morrison of America which was purchased by the Union Steam Shipping Company and installed in the 1920s. This equipment dates to early 1900s and includes a travelling feeder which survives on original tracks and timber frames and original bin gates in reclaim tunnel No. 1. On site, but not in situ, is a timber skip on display, adjacent to the administration building. Also in situ is the pump room equipment located beneath the wharf. This includes a pump manufactured by Kinny, USA, connected via a belt to a General Electric Motor.

The Coal Loader site is associated with Aboriginal use of the area and has contemporary values for Aboriginal people, particularly arising from its proximity to a major engraving site.

8.4 Individual Elements Significance Rating

This study has considered the relative significance of individual elements within each of the three industrial sites. These are set out in the following table. A three-level rating system has been employed as a guide for future management decisions.

BP Site

H = High, M = Medium, L = Low Significance.

Inventory Item	Rating
1. Archaeological zones (refer Figure 6.1)	H
2. Sandstone block bund wall	H
3. 'Gibraltar'	M
4. Rock Cuttings and natural rock escarpments	H
5. Drill bit wedged in rock wall	M
6. Mortises in rock walls	M
7. Encircling drainage canals	H
8. Sandstone block footings for tank	H
9. Pump room footings x 2	L
10. Brick retaining walls, lower terrace	H
11. Upper terraces formed for storage tanks	L
12. Upper concrete retaining wall	M
13. Site of c1930s building (store)	M
14. Electrical substation enclosure	L
15. Timber T-wharf built c1960s	L
16. Concrete retaining walls, adjacent to water	L
17. Western wide timber wharf	H
18. Concrete seawall and loose sandstone and brick block seawall	L
19. Steel Dolphin wharf 1963	M
20. Elevated steel walkways and concrete paths	M
21. Concrete steps recessed into natural stone cutting	M
22. Concrete drainage channels, etc	M
23. Concrete plinths and steel bolts	M
24. Possible site of funicular tramway	M
25. Building foundations, SW corner	M to H
26. Brick administration building	L
27. BP Sign, Larkin Street	M
28. Brick first aid building	None
29. Brick workshop at waterfront	L
30. Brick WC at water front	None
31. Concrete work area for waterfront	L
32. Potential midden deposit	L

Caltex Site

Inventory item.	Rating
1. 1960s office, HC Sleigh	L
2. Sites of two fuel tanks	M
3. Track to Coal and Allied site	L
4. Aboriginal site sheltered middens C1	H
5. Aboriginal site sheltered middens C2	H

Coal & Allied Coal Loader Site

Inventory item.	Rating
1. Sandstone Coal Platform	H
2. Recessed hoppers	H
3. Gantry crane base tracks	H
4. Ramp from Balls Head Gate	H
5. Lower walkway and mooring dolphins	L
6. Reclaim tunnels and western cells	H
7. Timber support posts and steel rails, tunnel No. 1	H
8. Mead Morrison travelling feeder, tunnel No. 1	H
9. Mead Morrison bin gates	H
10. Mead Morrison timber and steel coal skip No. 6	H
11. Remnant sleepers for coal skip track	H
12. 1976 geared bin gates tunnels Nos 2&3	M
13. Bund wall, conveyor turning areas	M
14. Concrete equipment platform	L
15. High level industrial wharf	H
16. Hoskins steel outloader frame	H
17. Bases of outloader gantry support rails	H
18. Pump room and pump equipment below wharf	H
19. Sandstone retaining wall – northwards	H
20. Sandstone retaining wall east-west	H
21. Sandstone boundary wall, Balls Head Road	H
22. Sandstone retaining wall and sea wall	H
23. Stone wall said to be buried in grass slope	Unknown
24. Sites of two bunker fuel tanks	H
25. Original sandstone office	H
26. Brick administration building	H
27. Workshop/ forge/Store/WC	H
28. Brick power house	H
29. Mess room and site of laundry	M
30. Open store	L
31. Aboriginal site CL1	M

9.0 Constraints, Issues and Opportunities

9.1 Strategic Masterplan

The Waverton Peninsula Strategic Masterplan was prepared for the North Sydney Council in 1999 by Clouston in association with Brian Elton and Partners, Hughes Trueman Reinhold, and Tanner and Associates Pty Ltd, Professor Peter Latz and Professor Arno S Schmidt. The plan outlines design, planning and management processes for the future development of the sites in accordance with Guiding Principles set out in the State Environmental Planning Policy No. 56 (SEPP 56) as well as North Sydney Council's key objectives for the BP, Caltex and Coal Loader sites.

The Strategic Masterplan has identified site opportunities within the parameters of the objectives outlined. One of the key aims of the plan is to allow for early, safe, public access to the BP, Caltex and Coal Loader sites, particularly to the waterfront. The plan suggests the use of metal walkways or stairs to control pedestrian access on the BP site, which is yet to be remediated. Similarly, a temporary metal walkway is proposed to provide access from Balls Head Road over the Coal Loader platform on the Coal Loader site. It is also suggested that the gantry way along the sea wall be partly reconstructed and that the lower walkway be secured and the roof removed. Access to the tunnels would be subject to further inspection and the removal of loose material or resurfacing where necessary.

9.1.1 BP Site

For long-term opportunities the resultant Strategic Masterplan divides the BP site into two main categories of land use:

- 'Public Recreation' which includes walking, cycling, rock climbing, viewing and local events as well as the potential use of the Dolphin wharf to provide public access to the water and mooring, or as part of a swimming enclosure.
- 'Working Waterfront' which is focused on the area of site which has been in constant use as a working waterfront by the site's occupants. The concept of continuing a working waterfront in this vicinity is compatible with the historic significance of this site. The potential future uses include boat building, repair, mooring, and chandlery.

Public access to the waterfront is via a primary footpath and water access opportunities include hoists, cranes, boat lifts, slipways, jetties, ramps, and pontoons.

The preferred building location is cited in the Masterplan being at the western end of the site to maintain upper level views across the bay – buildings would be subject to the Design Planning and Management Principles.

The eastern portion of the working waterfront area is to have the landform dominant, which is primarily circular cut-rock walls, formed to house fuel tanks, and to be free of taller buildings.

The northwestern foreshore area is identified for open parkland, dominated by the cuttings to house the fuel tanks. The exposed ridge top, level with Larkin Street, is retained as open areas, which afford panoramic views. The concrete walls are retained at both upper and lower levels.

9.1.2 Caltex Site

The Masterplan considers the Caltex site in conjunction with the adjacent Coal Loader (see below).

9.1.3 Coal Loader Site

The Masterplan identifies the Coal Loader site as having potential for intermittent ferry access, short-term mooring for larger vessels and public access for low-key activities such as fishing. The site also has scope for temporary major performances or displays – cultural/artistic/scientific, and self-guided or guided walking tours that link the site to others on the Peninsula. The artistic/gallery potential of the site could utilise the tunnels on the Coal Loader platform as well as the administration/amenity buildings on the site. Other commercial opportunities include food outlets, local uses such as meetings and storage space.

9.2 Issues Arising from Significance

The heritage significance of the Waverton Peninsula industrial sites gives rise to an overarching obligation for their conservation. Conservation, in turn, means that each place and element should be treated in a manner which retains identified natural and cultural values. For these sites, a major factor which contributes to their significance is the layers of history represented by both documentary and physical evidence. Conservation of these sites therefore requires:

- respect for the contribution of all phases of activity;
- retention of physical evidence of each phase of occupation, where possible;
- retention of remnant natural topography and vegetation;
- maintenance of major landform modifications, including cottages, filled areas and walls;
- retention and physical conservation of individually significant built elements (rated medium or high);
- physical protection of all known Aboriginal sites;
- physical protection of subsurface archaeological features;
- maintenance of an appropriate visual setting for each site and the Waverton Peninsula itself (including views to and from);
- curation of relevant archival material, including both historical and contemporary records;

- consideration of the sites in context and in conjunction with associated places such as Woodley's Boat Yard, and other sites on Balls Head Road; and
- on-site interpretation which allows visitors to understand both surviving physical evidence and the associated stories.

9.3 The Burra Charter of Australia ICOMOS

The *Burra Charter* (*The Australia ICOMOS Charter for Places of Cultural Significance*) contains principles for conservation of significant places. This Conservation Plan has been prepared in accordance with those principles. The *Charter* provides specific guidance for physical and procedural actions that should occur in relation to significant places. Relevant principles identified in the November 1999 revision of the *Burra Charter* include the following.

- The aim of the conservation is to retain the cultural significance of a place (Article 2.2).
- Conservation is based on respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary and as little as possible (Article 3.1).
- Where the use of a place is of cultural significance it should be retained (Article 7.1).
- Conservation requires the retention of an appropriate visual setting and other relationships that contribute to the cultural significance of the place. New construction, demolition, intrusions or other changes that would adversely affect the setting or relationship are not appropriate (Article 8).
- Significant associations between people and place should be respected, retained and not obscured. Opportunities for the interpretation, commemoration and celebration of these associations should be investigated and implemented (Article 24.1).
- The impact of proposed changes on the cultural significance of a place should be analysed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes following analysis to better retain cultural significance (Article 27.1).
- Existing fabric, use, associations and meanings should be adequately recorded before any changes are made to the place (Article 27.2).
- Records about the history of a place should be protected and made publicly available subject to requirements of security and privacy, and where this is culturally appropriate (Article 32.2).

9.4 Aboriginal Heritage

9.4.1 Implications of Significance

This section provides an analysis of the implications of the cultural significance of the Waverton Peninsula Aboriginal sites (in the broader context of the study area) for the future management of the place. In the immediate context of the present study area, the Aboriginal engraving site at the entrance to the Coal Loader represents the most significant management challenge. The three midden sites within the Coal Loader and Caltex sites are unsuitable for on-site interpretation or visitor use, although the information they provide about the Aboriginal owners may be indirectly referred to in off-site interpretative material or signage. All these sites need to be considered in the broader context of the entire Peninsula given their relative proximity and possible increased future accessibility. Other relevant issues include:

- The known Aboriginal sites are located on lands proposed to be opened up for public use. These lands are located immediately adjacent to areas known to contain a large suite of Aboriginal sites which cannot be viewed in isolation or as unrelated.
- Many of the sites are not obvious. Casual visitors or people who have no skill or training in identifying Aboriginal heritage places would not know that they were there. This is especially so for the hand stencil site and sheltered occupation site in Waverton Park and the middens in shelters within the Caltex site. Some of the rock engravings are weathered and very difficult to see. Some site elements are difficult to see even by those who know what they are looking for.
- Visibility is a double-edged sword. On the one hand a site which is not easily seen or identified cannot easily be deliberately vandalised or damaged. At the same time these sites are in some danger of being inadvertently damaged. Promotion of sites also necessarily increases visitation and the potential for damage.
- The sites are in public land and therefore available to be appreciated. They are not at threat from housing development. Public recreation brings its own threats from visitors who come to the area for activities other than to appreciate Aboriginal culture. Proximity to sporting fixtures means there will often be children playing in the area. Existing walking trails will connect through previously inaccessible areas. Proximity to the water means boaters will seek access for themselves and their crafts via the foreshore. Park maintenance activities can be a threat if workers do not know about the location and value of sites.
- Proximity to residential land may give rise to disturbance or damage from rubbish dumping, (primarily garden refuse) and/or children playing in the area. On the other hand, close neighbours also present an opportunity for people to keep an eye on things and can assist in protection of sites.

- Increasing use of Aboriginal sites by school groups as part of the educational curriculum provides both a threat and an opportunity. Some of these sites in the area have been used by teachers in the past. Such use magnifies the potential for visitor impacts. Provision of appropriate protection and interpretation can minimise impacts.

The implications of the significance of the sites is that the area should be managed to:

- protect and maintain sites;
- present and promote sites in such a way as explains (except those identified by the Local Aboriginal Land Council [LALC] as being 'unsuitable for public use') their importance to Aboriginal people and to the history of the city; and
- protect those areas as identified by the LALC as being 'unsuitable for public use' by not directly attracting attention to them and by not publicly documenting them.

The general principle should be to do as much is as necessary and as little as possible. The formal conservation process to be used in the area will be to protect the more fragile sites and promote awareness of the importance of the Peninsula in terms of Aboriginal significance.

9.4.2 Principles of Indigenous Heritage Place Management

The Commonwealth Government has produced a draft set of guidelines for the protection of indigenous heritage places. These guidelines embody the following principles.

Aboriginal and Torres Strait Islander Involvement

Aboriginal and Torres Strait Islander peoples have the right to be involved in decisions affecting their cultural heritage, and in the ongoing management of their cultural heritage. Aboriginal or Torres Strait Islander involvement in management should be continuous and at the level they consider appropriate.

Identify which Aboriginal or Torres Strait Islander people have rights to speak for the place, and/or have interests in the place, by wide and inclusive consultation, at the beginning of and throughout the process. All indigenous groups, organisations and individual owners or custodians with a possible interest in the place are to be involved. Support this by good technical planning and effective negotiation and mediation processes.

Decisions which have an effect at the local level should have full local level involvement. Regional planning should accommodate local level input. Local level planning should be integrated with regional planning.

All Interests to be Considered

The concerns of all relevant interest groups is to be taken into account. Some places have cultural values for both indigenous people and other groups in the community. All relevant groups should be consulted to allow agreement to be reached on the future of the place.

Cultural Significance

The aim of cultural heritage place management is to look after the cultural significance of a place. The 'cultural significance' of a place describes the value or importance the place has to a community and includes the 'social, aesthetic, historic, or scientific value of the place for present, past or future generations'. The term 'social value' includes spiritual values. The cultural significance of a place can change over time.

Process and Actions

Decisions about cultural heritage places are to be made as a result of a conscious and logical planning process. This process, guided by and maintaining the cultural significance of the place, takes into account all the management issues affecting the place and identifies the objectives for the management of the place.

Actions affecting places should be considered only after the cultural significance of the place has been established, and a Statement of Objectives has been agreed upon by the relevant indigenous community or owners.

Physical intervention or other management actions are taken to support cultural significance and should be the minimum required to achieve this aim. Actions which preserve cultural significance have top priority.

Making and Keeping Records

Records of places, records of decisions made about them and records of actions taken at heritage places should be made, kept, stored and accessed in a culturally appropriate way. Ownership of, storage and use of, and access to information are to be openly agreed at the outset of a project with the people who own, provide or have rights to the information. Availability of information supports the cultural significance of the place.

9.4.3 The Role of Local Aboriginal Land Councils

The Aboriginal Land Rights Act 1983 which is administered through the NSW Premiers Department is 'property' law rather than 'environmental' law, and there is widespread misunderstanding in the general community that it entitles Aboriginal people to claim places of Aboriginal heritage. The Act allows for claims of vacant Crown land which is not required for an essential public purpose. It also

provides funds for the purchase of lands. This Act does not protect heritage places and makes no provision for them to be claimed by Aborigines.

The Act provided for the establishment of a system of elected Land Councils. The role of these Councils is to deal with land and monies flowing from actions under the Act. The system of Local Aboriginal Land Councils covers the whole state and provides a point of formal contact with Aboriginal communities which had hitherto not been available. The National Parks and Wildlife Service which had long had a policy of consulting Aboriginal communities about the management of sites chose to use this Land Council system as the formal reference point for matters concerning the management of sites.

As a matter of policy, the Director of the National Parks and Wildlife Service, when considering actions which he may take under the National Parks and Wildlife Act (with respect to sites), consults with the relevant Local Aboriginal Land Council. Local government has generally followed this lead and many local councils liase regularly with Local Aboriginal Land Councils and other Aboriginal organisations about Aboriginal heritage and other issues.

Local Aboriginal Land Councils have themselves been active in advocating Aboriginal involvement in decision making about sites and many Councils employ trained, or trainee Aboriginal Site Officers whose specific role is to liaise with archaeologists, developers, the National Parks and Wildlife Service and local government about sites and their management. It is the practice of the National Parks and Wildlife Service and of most consultant archaeologists to involve the Local Aboriginal Land Council in planning for and assessment of matters affecting Aboriginal sites.

The Local Aboriginal Land Council whose boundary coincides with the North Sydney Council is the Metropolitan Local Aboriginal Land Council which has been involved as a consultant throughout the course of this project.

9.5 Statutory Context

9.5.1 The Australian Heritage Commission Act, 1975

The Australian Heritage Commission Act, 1975, establishes the Australian Heritage Commission as a Commonwealth agency which:

- identifies places in the National Estate and maintains a register of such places;
- furnishes advice relating to actions to conserve, improve and present the National Estate; and
- encourages public interest in the National Estate and furthers training and education in fields related to the National Estate.

The Register of the National Estate (RNE) is created under the Australian Heritage Commission Act 1975. The RNE is a list of Australia's natural, historic and cultural heritage. It alerts planners, decision makers, researchers and the community at large to the heritage value of these places.

The Register lists items which, in the opinion of the Commission, fall within the following definition:

> *Components of the natural environment 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.*

Listing in the Register of the National Estate imposes no legal restrictions except on Commonwealth agencies. In the case of Commonwealth agencies, consultation with the Commission must occur prior to carrying out any work which will impact on the heritage value of a place on the Register. Further, they must not take any action which adversely affects a place on the Register if there is an alternative which is prudent and feasible.

The Coal Loader site, Balls Head, has been nominated to the Register of the National Estate, but has not yet been considered for listing.

9.5.2 Aboriginal and Torres Strait Islander Heritage Protection Act, 1984

The Aboriginal and Torres Strait Islander Commission advises the Minister for Aboriginal Affairs regarding the application of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984.

The purpose of the Act is to protect areas and objects which are of significance to Aborigines and which are under threat of injury or desecration. A significant area is an area of particular significance to Aborigines in accordance with Aboriginal tradition. A significant object is defined as an object of particular significance to Aborigines in accordance with Aboriginal tradition. Objects include skeletal remains.

The Act empowers the Minister to declare areas and objects as significant in accordance with Aboriginal tradition to prevent activities which may threaten these areas and objects. The Act applies to all States and Territories but operates concurrently with existing State and Territory legislation so far as this legislation is consistent with the Act.

In 1996 Justice Elizabeth Evatt completed a review of this legislation which had been commissioned by the Minister for Aboriginal and Torres Strait Islander Affairs. It is anticipated that changes to this legislation will be forthcoming.

9.5.3 Other Relevant Commonwealth Legislation

In October 1997 the Minister for Environment announced that a new national framework for the management of cultural heritage would be put in place by the year 2001. The new *'National Heritage*

Places Strategy' will be likely to bring with it some legislative changes and focus on service agreements between the Commonwealth and state heritage agencies.

In addition to the specific Commonwealth legislation considered above, the future conservation and management of the Waverton Peninsula industrial sites should, where relevant, have regard to:

- World Heritage Properties Conservation Act 1983;
- Protection of Moveable Cultural Heritage Act 1986;
- Native Title Act 1993;
- Australian Archives Act 1983;
- Environmental (Financial Assistance) Act 1977;
- National Museum of Australia Act 1980;
- Urban and Regional Development Financial Assistance Act 1974; and
- Historic Shipwrecks Act 1976.

9.6 The NSW Heritage Act 1977

The NSW Heritage Act, 1977, establishes the NSW Heritage Council. The Act contains a range of mechanisms for protection and management of national and cultural heritage. It is administered by the NSW Heritage Office.

9.6.1 State Heritage Register

The State Heritage Register is a list of heritage items of particular importance to the people of NSW. It includes items and places (buildings, works, relics, moveable objects or precincts) of State heritage significance endorsed by the Heritage Council and the Minister. The State Heritage Register came into effect on 2 April 1999 and was created under the Heritage Amendment Act 1998. It replaces the previous system of Permanent Conservation Orders as a means of protecting items of State significance.

The State Heritage Register currently includes all items formerly protected by Permanent Conservation Orders and items identified as having State significance in heritage and conservation registers prepared by State Government agencies received by the NSW Heritage Office prior to 2 April 1999. Items on the State Heritage Register require approval from the Heritage Council of NSW for certain works.

No item on any of the subject sites is currently on the State Heritage Register.

9.6.2 Interim Heritage Orders

Interim Heritage Orders can be made under Part 3 of the Heritage Act either by the Minister or, where authorised, a Local Government Council. Interim Heritage Orders replace the previous Interim Conservation Orders and orders made under Section 130. They are effective for a maximum period of twelve months.

The subject sites are not currently affected by any Interim Heritage Order.

9.6.3 Archaeological 'Relics'

Under Division 9 of the Heritage Act, a permit is required for the excavation of relics, unless there is an applicable gazetted exemption. The Act defines a relic as:

Any deposit, object or material evidence

(a) which relates to the settlement of the area that comprises New South Wales, not being an aboriginal settlement, and

(b) which is 50 or more years old.

Pursuant to Clause 139 of the Heritage Act, an excavation permit is required where there is reasonable knowledge or likelihood that disturbance or excavation of the land is likely to result in a relic being discovered, exposed, moved, damaged or destroyed.

By virtue of its previous uses, the Site is highly likely to contain subsurface archaeological resources. No subsurface disturbance should occur without site-specific evaluation, and either monitoring of work or archaeological excavation by a qualified archaeologist, in accordance with a permit issued by the NSW Heritage Council.

9.7 The National Parks and Wildlife Act 1974

In New South Wales the primary responsibility for Aboriginal heritage lies with the NSW National Parks and Wildlife Service through the National Parks and Wildlife Act 1974.

This Act protects Aboriginal relics and places. Relics are defined as deposits, objects or material evidence related to indigenous and non-European occupation both prior to and concurrent with European occupation. An Aboriginal place is any place declared to be an Aboriginal place under Section 84 of the Act and is or was of special significance with respect to Aboriginal culture.

Under Sections 86 and 91 of the Act it is an offence to damage, deface or destroy Aboriginal relics or places without the consent of the Director of the National Parks and Wildlife Service. A person who is aware of the location of a relic is required to report its existence to the Director.

A relic may be the property of the Crown or private property depending upon their disposition and date of collection. However, most relics which are 'sites', that is, are engraving sites or rock art sites, or archaeological deposits, are real property and therefore belong to whoever owns the land. However, they may not be disturbed or destroyed. The Australian Museum curates moveable relics which are the property of the Crown.

The Act enables the National Parks and Wildlife Service (NPWS) to acquire land which contains significant relics. These may be dedicated as Aboriginal areas or historic sites. The NPWS can also enter into agreements with landowners for the protection of relics ('conservation agreements') and/or, with the consent of the owners, areas can be declared protected archaeological areas while remaining in private ownership.

An area of land can also be declared an Aboriginal Place. This has the effect of bestowing on that land the same protection as a 'relic'. This provision is most often used to afford protection to land which contains no physical relics but which is a site of proven importance to Aboriginal people, such as mythological sites.

A 1987 amendment to the Act allows the minister responsible for administering the Act to make Interim Conservation Orders over land of cultural significance. Such orders last twelve months and impose restrictions on the development of land.

As well as administering the provisions of the National Parks and Wildlife Act 1974 the NPWS takes an active role in overseeing the implementation of the Environmental Impact Assessment process in relation to Aboriginal sites. NPWS Zone Teams actively review environmental assessments and statements to ensure that these consider, and make appropriate provision for, Aboriginal sites. The various Zone Teams take an active role in local government planning in an effort to ensure that sites are protected in an active way, and in order to prevent the necessity for last minute interruptions to developments by the application of its own Act, should sites have been inadequately considered.

The Cultural Heritage and Technical Services Division maintains the NPWS's database including the Aboriginal site register and the report catalogue.

9.8 Environment Planning and Assessment Act 1979

The Department of Planning administers the Environment Planning and Assessment Act 1979. This Act provides for the preparation of environmental planning instruments intended to guide land use and management at State, regional and local levels. The specific requirements of a number of applicable environmental planning instruments are summarised below.

The main feature of the Act with relevance to cultural heritage is the requirement for environmental assessment of development proposals and a mechanism for the inclusion of heritage conservation provisions in planning instruments.

Environmental assessment is required for all designated developments, and such reviews must include a review of impacts upon both the Aboriginal and built cultural environment. Environmental Impact Statements and Reviews of Environmental Factors require identification and assessment of Aboriginal heritage within the subject area.

The role of local government in heritage management was set out in 1985 in a policy document issued at the direction of the then Department of Environment and Planning. This document, 'Conservation of Environmental Heritage and Ecologically Significant Items and Areas' (Circular No. 84), states that while the State government authorities such as the Heritage Council and NPWS have specific conservation responsibilities, the major responsibility for conservation rests with local government.

The directive obliges local government authorities to include provisions in local planning instruments for the conservation of buildings, works, relics, places or areas of heritage significance. The directive includes a step-by-step process for heritage conservation including the identification of local heritage, through the use of studies, registers, analysis and assessment of local heritage, and the statutory implementation of conservation objectives. When a draft planning instrument is inconsistent with the directive, the local government authority is required to justify the inconsistency to the Department of Planning before final approval of the instrument can be made.

9.8.1 State Environmental Planning Policy 19

The general aim of State Environmental Planning Policy No. 19 (SEPP 19) is to protect and preserve bushland within urban areas, including the North Sydney area.

9.8.2 State Environmental Planning Policy 56

State Environmental Planning Policy No. 56 – Sydney Harbour Foreshore and its Tributaries (SEPP 56) provides a co-ordinated approach to managing Sydney's waterfront.

In summary, SEPP 56 requirements relate to increased public access and use of the foreshore and access to water transport, protection of the natural and historic heritage, improvement of the visual and ecological qualities of the Harbour and foreshore, and compatibility and ecological sustainability.

The BP site, Berrys Bay and the Coal Loader site, Balls Head, are identified as sites of strategic significance. SEPP 56 requires the preparation of a Masterplan for the sites, prior to the granting of consent.

SEPP 56 includes a range of principles including:

- *the protection and conservation of heritage values.*

9.8.3 Sydney Regional Environmental Plan 23

Sydney Regional Environmental Plan No. 23 (SREP 23) seeks to establish a framework to encourage a consistent and co-ordinated approach to the planning, development and management of Sydney and Middle Harbours. The specific aims of the Plan in relation to environmental heritage are:

(i) to conserve and enhance the environmental heritage of the Harbours and their foreshores and islands, including their underwater archaeological resources; and

(ii) to encourage an appreciation of the role of the Harbours in the history of both Aboriginal and European settlement.

Part 4 of SREP 23 establishes heritage provisions, with a schedule of heritage items included in Schedule 5. The Coal Loader, Balls Head is included in Schedule 5 as a heritage item.

Pursuant to Clause 22 of the SREP, consent is required for various types of works affecting heritage items under the Plan. This includes demolition or alteration of a building or work, or erecting a building on land comprising a place. Under Clause 22(2) the consent authority is required to take into consideration:

the extent to which the carrying out of the proposed development would affect the heritage significance of the item and any stylistic or horticultural features of its setting.

Clause 22(3) provides that the consent authority may decline to grant consent until it has considered a conservation plan enabling it to fully understand the impact of a development proposal on the significance of the item and its setting.

Clause 23 of the SREP sets out requirements for the consideration of the effects of development in the vicinity of a heritage item on the significance of the item and its setting.

In the case of applications proposing demolition of a heritage item, the consent authority is required to seek the views of the Heritage Council of NSW. The SREP defines 'demolition' to mean 'the damaging, defacing, destruction, pulling down or removal of the heritage item, in whole or in part'.

Clause 28 of the SREP sets out requirements for the protection of archaeological significance of heritage items and their sites.

9.8.4 Sydney Harbour and Parramatta River Development Control Plan for SREP 22 and SREP 23

The DCP for Sydney Harbour and Tributaries 1998 contains detailed provisions to guide planning and development and achieves this by establishing a set of performance-based criteria and design guidelines for acceptable harbourside development. These new provisions replace the design and management guidelines contained in the regional plans.

The subject sites have a landscape character type 11 which applies to the industrial areas of the Harbour. These sites are recognised for having a strong visual presence within the Harbour and for their important contribution to the vitality and diverse activity on the Harbour.

The Coal Loader is identified as having landmark value.

9.8.5 Sydney Harbour and Tributaries Waterside Control Plan, 1990

The Sydney Harbour and Tributaries Waterside Control Plan is a development control document adopted by the Maritime Services Board that relates to waterside uses and structures. The objective of the plan is to establish a system of waterside classifications which controls the type and extent of development on the shores of the Harbour. The Plan enables Council to seek the Board's approval to the use of waterfront land of any class for the purposes of public access and associated structures.

9.8.6 North Sydney LEP 1989

Part 4 of the North Sydney Local Environmental Plan (LEP) 1989 establishes heritage provisions for items and areas within the North Sydney Council area identified under the provisions of the Plan. The Coal Loader is listed as a heritage item in Schedule 2 of the LEP. The Quarantine Station, south of the BP site, is also listed as a heritage item.

Clause 35 of the LEP sets out the aims and objectives of the plan in relation to conservation. These include:

(a) to control the demolition of heritage items and buildings and works within conservation areas and to develop guidelines to ensure that any alterations and additions to heritage items and buildings and works within conservation areas are in scale and character;

(b) to ensure that consent is not given to the carrying out of development in the vicinity of a heritage item unless an assessment has been made of the effect which the carrying out of that development would have on the cultural significance of the item and its site;

(c) to ensure that new developments in conservation areas are designed taking into account of the surrounding scale and character of development;

(d) to ensure the increased use of structurally sound buildings by encouraging infill development;

(e) to ensure that Aboriginal sites are preserved; and

(f) to ensure that natural bushland, landmark trees, the foreshores and open space are maintained and effectively managed.

Under Clause 37 of the LEP, consent of Council is required for works affecting heritage items, including demolition or alteration of a building or work, damaging a place or tree, and the erection of

a building on land comprising a place. Council, in considering an application affecting a heritage item, is required to take into consideration:

> *the extent to which the carrying out of the proposed development would affect the cultural significance of the item and any stylistic or horticultural features of its setting.*

Applications made pursuant to Clause 37 are required to satisfy Council of the following matters:

(a) the significance of the item as a heritage item;

(b) the extent to which the proposal would affect the cultural significance of the item and its site;

(c) whether any stylistic, horticultural or archaeological features of the item or its site should be retained;

(d) whether the item constitutes a danger to the users or occupiers of that item or to the public;

(e) in the case of a building or work – whether the permanent conservation of the building or work is considered necessary; and

(f) in the case of a building or work – the probability of the building or work being incapable of reasonable or economic use.

Under Clause 38 of the LEP, Council is required to consider the effect of development on land in the vicinity of heritage items on the heritage significance of that item and its setting.

9.8.7 Exhibited Draft North Sydney LEP 1998

Draft amendments to the heritage provisions of the North Sydney LEP have been exhibited for public comment. The exhibited Draft LEP replaces the existing Part 4 with new controls, including the following objectives:

(a) to encourage the conservation of heritage items (and their curtilages) and areas of heritage significance of the North Sydney Council;

(b) to integrate heritage conservation into the planning and development control processes;

(c) to ensure that development does not adversely affect the heritage significance of heritage items, and heritage conservation areas (and their curtilages);

(d) to ensure that development in the vicinity of a heritage item does not adversely affect the heritage significance of the item or its setting;

(e) to ensure that the character of heritage conservation areas, and characteristic features which contribute to their heritage significance are preserved;

(f) to ensure that Aboriginal sites are preserved; and

(g) bushland and open space reserves, foreshores and significant trees which are of heritage significance are retained and managed to maintain their heritage significance and to maintain the heritage significance of significant areas of bushland, parks, foreshores and significant trees.

Under exhibited Draft LEP Clause 38, Council must take into consideration the impact of proposed development on the heritage significance of a heritage item. This includes an assessment of the effects on significant structural fabric, stylistic, horticultural or archaeological features of the item or its curtilage, and on the contribution of these features to the heritage significance of the item or its site.

Exhibited Draft LEP Clause 39 sets out documentation which is required to support applications relating to heritage items. For items of State or regional significance (or possible State or regional significance), this includes a heritage impact statement, and depending on the extent of works, a conservation plan.

The former Coal Loader is listed as being of State heritage significance in the draft amended heritage schedule.

9.8.8 Draft North Sydney LEP 1998 (Heritage)

In accordance with a North Sydney Council resolution of 1 June 1998, Council has prepared a further Draft LEP for Heritage. This Draft LEP, which amends the heritage provisions of LEP 1989, has not been exhibited or gazetted.

The unexhibited Draft LEP (Heritage) includes the following heritage objectives:

(a) ensure the conservation of heritage items, heritage conservation areas, and their curtilages;

(b) ensure that development does not adversely affect the heritage significance of heritage items, and heritage conservation areas;

(c) ensure that development in the vicinity of a heritage item does not adversely affect the heritage significance of the item;

(d) ensure the conservation of the character and heritage significance of characteristic features and heritage conservation areas as a whole or any part thereof;

(e) ensure that demolition within heritage conservation areas does not result in incremental loss of heritage significance or characteristic features;

(f) ensure the conservation of Aboriginal sites; and

(g) maintain the heritage significance of areas of bushland, parks, foreshores and significant trees.

The provisions of the unexhibited Draft LEP (Heritage) generally parallel those of the exhibited Draft LEP and include matters to be considered in relation to development proposals affecting heritage items. Documentation requirements for proposed demolition of heritage items are specified. This draft instrument also includes provisions for conservation areas and development in the vicinity of heritage items.

The unexhibited Draft LEP (Heritage) includes a map which identifies the sandstone faced bund wall in the BP site as a heritage item. However, the wall is not included in the list of heritage items at Schedule 2 of the draft instrument.

The unexhibited Draft LEP, at Clause 41E, includes the following detailed provisions for development of archaeological sites:

41E. (1) The Council must not grant consent to the carrying out of development on an archaeological site that has Aboriginal heritage significance (such as a site that is the location of an Aboriginal place or a relic, within the meaning of the National Parks and Wildlife Act 1974); unless:

(a) it has considered an assessment, prepared in accordance with any guidelines for the time being notified to the Council by the Director-General of National Parks and Wildlife, of how the proposed development would affect the conservation of the site, and any relic known or likely to be located at the site; and

(b) it has notified that Director-General of its intention to do so and taken into consideration any comments received from that Director-General within 28 days after the notice was sent; and

(c) it is satisfied that any necessary consent or permission under the National Parks and Wildlife Act 1974 has been granted.

(2) The Council must not grant consent to the carrying out of development on an archaeological site that has non-Aboriginal heritage significance unless:

(a) it has considered an assessment, prepared in accordance with any guidelines for the time being notified to the Council by the Heritage Council, of how the proposed development would affect the conservation of the site and any relic known or likely to be located at the site; and

(b) it has notified the Heritage Council of its intention to do so and taken into consideration any comments received from the Heritage Council within 28 days after the notice was sent; and

(c) it is satisfied that any necessary excavation permit required by the Heritage Act 1977 has been granted.

9.8.9 North Sydney Development Control Plan No. 1

The aims and objectives of the North Sydney Development Control Plan No. 1 (DCP No. 1) regarding heritage are to provide:

- *detailed guidelines relating to maintenance of the heritage significance of heritage items and heritage conservation areas;*
- *guidelines for new development in heritage conservation areas; and*
- *guidelines for sandstone rockfaces, retaining walls and kerbing.*

The DCP No. 1 also provides definitions of various heritage terms used in the DCP and the North Sydney LEP.

The objective of the DCP regarding heritage items is to ensure that any alterations and additions maintain and enhance the heritage significance of these items. DCP No. 1 provides guidelines for alterations and additions to heritage items. These guidelines state that all alterations and additions should:

a) reinforce the architectural style to the original building;

b) be subservient in scale to the original building, and should be readily identifiable as new work having regard to the requirements of (a) above;

c) not detract from the principal elevations of the building;

d) involve the removal or modification of existing unsympathetic accretions to a building; and

e) use traditional colour schemes.

DCP No. 1 also provides guidelines regarding new development and alterations and additions affecting Heritage Conservation Areas. As the subject site is not identified as a Heritage Conservation Area, these guidelines do not apply.

9.8.10 North Sydney Foreshore Open Space Study 1991

The North Sydney Foreshore Open Space Study, September 1991 was prepared by The Rice Daubney Group for North Sydney Council to investigate the opportunities for increasing the level of public access to the foreshore areas of Sydney and Middle Harbours.

While open space was reported as adequate for local needs, improved access to foreshore bushland, in conjunction with improved linkages to other parks in an open space system, were noted as key needs. Specific problems regarding use of the foreshore open space areas were identified as including parking congestion, noise and invasion of privacy for local residents, rubbish, better

maintenance of existing public areas, provision of better facilities, extension of public foreshore open space and a continuous link around the Harbour.

9.9 Other Heritage Listings

9.9.1 National Trust of Australia (NSW)

The Coal Loader site is classified by the National Trust of Australia (NSW). The National Trust of Australia (NSW) is a community based conservation organisation. The Trust has assembled a Register of heritage items and conservation areas through the assessment work of its expert committees. Although it holds no legal status, the National Trust Register is considered to be an authoritative guide to heritage significance and the Trust acts as a lobby group for heritage conservation.

9.9.2 Institution of Engineers Australia

None of the Waverton Peninsula industrial sites have been accorded historic marker/landmark plaques by the Institution of Engineers Australia. (The Institution formerly maintained a list of significant engineering sites, but this list has been discontinued.)

9.10 Physical Condition

The existing elements within the three industrial sites are in varied physical condition. By and large, landform features are stable and structures are sound; the major exception being two timber wharves within the BP site and the Coal Loader wharf (these are addressed separately below).

At all three sites there has been substantial removal of redundant plant and equipment – thereby limiting both future use options and interpretation opportunities.

9.10.1 BP Site

Extensive post-operational changes have occurred at the BP site. The once dominant large-scale fuel storage tanks have been removed, leaving bare stone cuttings and level areas formed by cut and fill. Physical conditions include the following:

- generally stable rock faces, with some minor loose areas;
- loosely compacted fill areas;
- generally stable sea wall;
- sound concrete and sandstone bund wall;
- sound concrete/brick bund wall footings;

- upper concrete retaining wall in good condition;
- upper concrete slab in fair to poor condition, broken and missing in parts;
- a range of machinery and pipe foundations;
- apparently intact fire ducting;
- sound Dolphin wharf;
- sea wall requiring repair and stabilisation in parts; and
- timber wharves in fair to poor condition (see below).

9.10.2 BP Site Timber Wharves

In view of the significance of the timber wharves on the BP site and their apparent poor condition, specialist advice was sought from Patterson Button & Partners Pty Ltd, Consulting Engineers. Their report, which is based on an external inspection, is included in full as Appendix B. They conclude:

1930 Western Wharf

This wharf is a typical timber structure comprising timber piles, timber headstocks, timber girders and a timber deck. The wharf is in poor condition throughout. A large majority of the timber piles are severely necked in the tidal zone and would have inadequate load carrying capacity. Many of the planks making up the timber deck are in an advanced stage of rot from prolonged exposure to the atmosphere. About 50% of timber headstocks and girders can be seen to have deteriorated significantly. Given the poor condition of the timber deck overhead, it is expected that the majority of girders and headstocks would be in poor condition (the condition of the top surface of these timbers is the critical factor).

- *It is not considered viable to repair the timber of this wharf due to its advanced deterioration. As noted earlier, if a timber wharf structure is required at the site, it should be built from new materials – modern construction techniques even with timber can imitate the techniques employed in the original construction.*
- *If the site is to be used as part of a working waterfront (refer to Masterplan), it is expected that a range of activities would take place at the site related to providing access to the water. Future uses might include vessel hoisting and lifting (use of crane runway beams), slipways, jetties, ramps, and pontoons. Some of these uses are better suited to a steel piled and/or concrete deck structure rather than a timber wharf structure.*
- *If moorings from a fixed jetty type structure are to be provided at the site, a timber structure similar to existing may be suitable (however, additional mooring piles may be required).*

1960 T Wharf

This wharf is of similar construction form to the wide timber wharf located nearby. Of the three wharves inspected, this wharf is the best condition. The wharf consists of an approach jetty (from shore to the T-head), a T-head jetty, 2 dolphins (located at each end of the T-head) and a freestanding fender structure along the face of the T-head. Approximately one-third of the timber piles are necked in the tidal zone to the extent that repairs would be required. The headstocks and girders appear to be in fair condition but perhaps a quarter will require remedial work. Maintenance of the timber deck seems to have been carried out and the deck is in fair condition. Most of the timber piles of the fender structure are necked and will require repair in the near future.

- *This wharf is in the best condition of those inspected and repair may be viable. Further more detailed examination would be required to determine the nature of remedial work from which a financial decision can be made about repair versus reconstruction. Reconstruction could be in a form similar to existing or in alternative materials (eg floating pontoons).*

- *As with the Wide Timber Wharf, the site might be used for a range of activities possibly including vessel hoisting and lifting, slipways, jetties, ramps, and pontoons. Some of these uses are better suited to a steel piled and/or concrete deck structure rather than a timber wharf structure.*

- *The T-shaped wharf would be suitable for mooring vessels, although additional mooring piles may need to be provided.*

- *Consideration could be given to removal of one or both of the dolphins and the removal/reconstruction of the freestanding fender structure. This consideration might be driven by financial viability or proposed function.*

9.10.3 Caltex Site

The Caltex site represents only a small section of a once larger industrial area. The vegetated slope to the west of the site is unstable because of a combination of the steep landform and introduced fill. There is extensive weed infestation. The site is currently littered with a range of industrial relics/rubbish. The two Aboriginal midden/shelter sites are apparently intact, although there is rubbish present in each.

9.10.4 Coal Loader Site

The Coal Loader site retains a substantial array of buildings, structures and relics associated with its twentieth-century industrial use. While there has been some modification of the landform and introduction of new vegetation, the overall site retains a high degree of integrity and the ability to demonstrate its historic function. Physical conditions include the following:

- intact concrete and masonry platform and tunnels (with hopper chutes infilled);
- remnant in situ ship rails and turning points;

- generally intact steel stairs and gantry – requiring some maintenance and repair;
- modified former tank sites;
- extant underground fuel tanks;
- buildings in fair to good condition, adapted for current use;
- intact pumping equipment inside pump room, below wharf;
- tracks and paths remaining on original alignment;
- extant (but mostly inoperable) service elements including transport and substation; and
- timber and steel Coal Loader wharf in fair to poor condition (see below).

9.10.5 Coal Loader Wharf

In view of the significance of the former Coal Loader wharf and the apparent poor condition of its timber superstructure, specialist advice was sought from Patterson Britton and Partners Pty Ltd, Consulting Engineers. Their report, which is based on an external inspection, is included in full as Appendix B. They conclude:

> *The coal loader wharf consists of two integrated structures: a closely spaced timber structure and a more largely spaced steel framed structure. The timber structure appears to be the original construction and was built perhaps 50 or more years ago. The steel framed structure was installed about 25 years ago to provide support for a number of berthing dolphins used to cater for small coal ships.*
>
> *The timber structure of the Coal Loader Wharf is in extremely poor condition. A large majority of the timber piles have been severely necked in the tidal zone as a result of marine borer attack. Deterioration is so advanced that localised sections of the sub-structure have dropped away from the deck girders and fallen into the sea. At these locations where sub-structure collapse has occurred, the steel framed structure is preventing sections of the timber deck from falling into the sea. The vast majority of the timber piles will require remedial work if the structure is to be made safe. The underside of the timber deck appeared to be in fair to poor condition. It is expected that closer inspection of the timber deck, particularly the top surface of girders and headstocks, will find the deck to be in poor condition. Given the poor condition of the timber structure, it is expected that partial collapse from self-weight alone will continue.*
>
> *The steel framed structure appears to be in fair to good condition throughout but is undergoing localised corrosion mostly in or slightly above the tidal zone. The steel framed structure at the western end of the wharf appears quite stable and is providing good longitudinal and lateral stability for the rest of the timber and steel wharf. The steel-framed structure back to shore appears to have been partly dismantled (longitudinal beams removed) but is still quite stable. It is expected that the steel-framed structure would have a remaining life of many years.*

- *It is not considered viable to repair the timber structure of the Coal Loader Wharf due to its advanced deterioration. If a wharf type timber structure is required at the site, it should be built from new materials – modern construction techniques even with timber can imitate the techniques employed in the original construction.*

- *It may be beneficial to retain the steel-framed structure as this is in far better condition that the timber. Part of the steel-framed structure could be used to support a new wharf and this has the potential to save large sums on construction. If large vessels are to be moored at the wharf, it is likely that a steel structure would be required in any case. It is expected that the piles would be re-useable but that the steel beams would need to be modified.*

- *The existing wharf is positioned very high out of the water. This has the potential for good views but makes vessel usage difficult. Access to vessels moored at the wharf would require the deck to be much lower or a low-level platform introduced.*

9.10.6 Remediation Requirements

The BP site contains areas that are contaminated as the result of fuel leaks and other activities undertaken at the site. As part of the decommissioning process BP Australia is undertaking site remediation.

The proposed site Remediation involves the removal of soil from the foreshore near the wide timber wharf and the soil within the sandstone block wall. This Remediation work will impinge upon areas of archaeological potential and will require archaeological assessment and supervision. Remediation works in the southeast lower terrace and east of the office building are also in the vicinity of areas of archaeological potential, and will require archaeological assessment and supervision. Additional remediation activity at the upper level, within fill areas, is unlikely to affect subsurface archaeological features.

9.11 Associated Places and Records

The significance of the three industrial sites on the Waverton Peninsula derives in large part from their layered history and the survival or potential survival of evidence from each occupational phase. However, this significance and factors that contribute to it extend beyond the place itself to associated places and records.

The adjacent Woodley's Boat Yard includes the sandstone sea wall and boat ramp dating to the Berry occupation phase. The stone steps and potentially the foundations of the house built for Berry's overseer, Mathews, survive west of Balls Head Road, adjacent to the BP site.

Adjoining the BP site to the north are two residences that were purchased by COR to house the site manager and other staff.

Wallahra Coal Company, purchased two residences, No. 15 and No. 17 Balls Head Road, for the site manager and engineer.

Reference has also been made to archived material including a collection of glass negatives, operational manuals, and engineering drawings documenting the operation of the Coal Loader. This collection was in Coal and Allied ownership and was to be placed with Stanton Library. These directly related known sites, archival material and the Waverton Peninsula itself are important contributors to the significance of the three industrial sites which must be addressed in determining conservation policies and future planning strategies.

9.12 Associated People

There are a range of people and communities who are interested in the history, significance and future treatment of the three industrial sites. As indicated in Sections 1.0 and 2.0 of this report, active measures have been taken to include known stakeholders and the wider community throughout the Conservation Management Plan study process. Known views of associated people have been incorporated, where relevant, within the 'social values' component of the significance assessment. However, at the Stakeholder Forum meetings, in the formal 'Community Consultation' meeting and through direct contact, a range of other views have been expressed. Points raised include the following:

- access must be provided through these previously closed sites;
- only maritime industrial activities should be permitted;
- views and vistas should be maintained;
- the dynamic quality of the place should continue;
- diversity of use and aesthetics is important;
- there should be clear, comprehensive, accessible interpretation;
- the BP site upper concrete slabs should be removed;
- the BP site upper retaining wall should be removed (there were very strong representations made on this issue, but also some opposing views expressed);
- the BP site should have the natural landform and vegetation of its upper area returned;
- the sites need to be managed economically by Council;
- use should balance local community and other needs and wants;
- public safety needs to be balanced against cost;
- cars should be discouraged;

- Aboriginal sites provide a good opportunity for education;
- elements that physically convey the industrial process should be retained;
- the preservation of the Coal Loader wharf is of the greatest importance; and
- the sites should commemorate early industrial use of the Harbour.

9.13 State Government

The three industrial sites are owned by the NSW State Government (managed by the State Property Branch).

In August 1997 the NSW Premier Bob Carr announced the State Government's vision for the Sydney Harbour foreshores including the three Waverton Peninsula industrial sites. The statement was accompanied by a set of guiding principles based on optimising public access and reinvigorating Sydney's working waterfront.

These principles were subsequently formalised under State Environmental Planning Policy No. 56 as:

- *increasing public access to, and use of, land on the foreshore;*
- *the retention, management and use of land made available for public access, or the use of other appropriate tenure mechanisms where public ownership is not possible;*
- *the retention and enhancement of public access links between existing foreshore open space areas;*
- *the conservation of significant bushland and other natural features along the foreshore, where consistent with conservation principles, and their availability for public use and enjoyment;*
- *the suitability of the site or part of the site for significant open space that will enhance the open space network existing along the harbour foreshores;*
- *the protection of significant natural and cultural heritage values, including marine ecological values;*
- *the protection and improvement of the unique visual qualities of the Harbour, its foreshores and tributaries;*
- *the relationship between use of the water and foreshore activities;*
- *the conservation of items of heritage significance identified in an environmental planning instrument or subject to an order under the Heritage Act 1977;*
- *the scale and character of any development, derived from an analysis of the context of the site;*

- *the character of any development as viewed from the water and its compatibility and sympathy with the character of the surrounding foreshores;*
- *the application of ecologically sustainable development principles;*
- *the maintenance of a working-harbour character and functions by the retention of key waterfront industrial sites or, at a minimum, the integration of facilities for maritime activities into development and, wherever possible, the provision of public access through these sites to the foreshore;*
- *the feasibility and compatibility of uses and if necessary, appropriate measures to ensure coexistence of different land uses;*
- *increasing opportunities for water based public transport.*

9.14 North Sydney Council

9.14.1 Overall Objectives

North Sydney Council, as the agency with long-term responsibility for the three Waverton Peninsula industrial sites, has commissioned the Strategic Masterplan and this Conservation Management Plan. Council's overall objectives for the site's use are to:

- *determine appropriate landuses;*
- *consider adaptive reuse opportunities for existing site structures and buildings;*
- *retain artefacts related to the industrial heritage of the sites;*
- *protect and enhance existing bushland;*
- *satisfy the expectations of a diverse range of stakeholder groups;*
- *create a high quality public space consisting mainly of parkland.*

9.14.2 Study Brief

In relation to the Conservation Management Plan, the overall objectives expressed in Council's brief are to:

- *investigate the cultural significance of the sites, including both Aboriginal heritage and European elements, through an assessment of the historical and geographical context, history, fabric, landscape, research potential, and the importance of the sites to the relevant communities;*

- *prepare a Statement of Significance – the plan will analyse documentary and physical evidence to determine the nature, extent and degree of significance of the heritage values of the sites, particularly Aboriginal and industrial heritage values;*

- *develop a Conservation Policy, arising out of the Statement of Significance which will provide a framework for the management of the Waverton Peninsula. Constraints and opportunities are to be identified;*

- *consider the suitability of current proposals and recommendations arising from the Strategic Masterplan concerning the re-use of the sites, and how these may be achieved in accordance with the conservation policy;*

- *recommend how the Aboriginal and European heritage significance of the sites can best be managed in the context of the potential uses identified in the Masterplanning process;*

- *propose innovative strategies and mechanisms for the ongoing management and interpretation of the sites' cultural significance, as well as the conservation of the place's Aboriginal sites;*

- *formulate an Interpretation Policy for the Aboriginal values and the significant industrial and moveable heritage elements of the place, which may be put inplace once feasible uses are agreed upon, or implemented at a later stage in the planning process; and to*

- *continue to foster community ownership and involvement in the ongoing management of heritage and cultural resources of the Waverton Peninsula.*

9.14.3 Heritage and Cultural Resources Study

Council has commissioned a *Heritage and Cultural Resources Study,* which is currently on public exhibition. This report and its goals and policies are of great relevance to the Waverton Peninsula industrial sites. In particular, Outcome No. 7 from the study requires that:

> ***A mix of waterfront uses is maintained fostering diverse 'harbour-side' industries***
>
> *The waterfront has been one of the area's key economic factors. Revised uses of the waterfront should not be confined to residential development but include small business, harbour services and related industries, and visitor amenities and services. While the uses may change, the diverse character of the waterfront encourages access and is an amenity which should be conserved and celebrated.*

The 'cultural policies' proposed in the study provide that:

1. *North Sydney will protect its stock of cultural assets and foster a rich diversity of viable cultural assets by identifying and conserving significant aspects of cultural life in statutory plans.*

2. *Views from streets, lookouts and other public places will be protected and may not be diminished by development in the public or private realm. Major views include those of the Sydney Harbour*

Bridge, the Opera House and the harbour (middle and main) the city skyline, headlands and valleys.

3. *Public access to the foreshore will be protected, managed and facilitated. Council will oppose any loss of publicly owned waterfront land and will require new waterfront development to dedicate public land and access along the foreshore.*

4. *Council will encourage active, diverse uses of the waterfront including for small business, 'harbour' services and visitor services and amenities. Cultural industries and businesses are at the heart of the local economy.*

5. *Urban open space will be retained and its amenity protected. Areas of natural bushland will be actively conserved. No public land will be alienated.*

6. *All sandstone elements, whether natural or in built form, are valued parts of the urban environment and are to be conserved. Any alteration or obscuring will require Council approval.*

7. *Council will require all development in the public and private domain to maintain or enhance the quality of the streets of North Sydney, including maintaining those responses that reflect respect for the topography. Interventionist elements, including traffic calming devices, which interrupt or undermine the quality of the streetscape will be resisted.*

8. *Council will require the retention, conservation and maintenance of places and precincts identified as having pre- or post-European settlement heritage value.*

9. *The retention of solo/wharf/corner shops will be encouraged in the interests of neighbourhood quality of life.*

10. *The web of socio-cultural and civic voluntary associations will be supported through Council directories and communications networks, facilities (such as community centres, parks and ovals) and cultural programs.*

11. *Council will encourage the ongoing development of a thriving economy based on the cultural business and knowledge industry sector as part of its commitment to maintaining and enhancing local amenity.*

12. *Council will encourage creativity and imagination through urban design, integrated environmental improvement projects and a public art program.*

9.14.4 North Sydney Draft Cultural Assets and Resources Development Control Plan 1999

Council's Draft DCP 1999, which results from the Heritage and Cultural Resource Study, specifically recognises the value of maritime and industrial foreshore sites:

One of the most readily apparent archaeological resources in North Sydney is the extensive range of working and dis-used maritime and industrial sites along the Harbour foreshore. These comprise a range of structures, machinery and equipment (some articulated and in working order, others

redundant or discarded) which provide an important link to the industrial and maritime heritage of North Sydney.

9.14.5 BP Site Remediation

Council has taken an active interest in the remediation of the BP site being undertaken by BP Australia. In accordance with a Council resolution of 31 May 1999 the Mayor of North Sydney has advised BP Australia Ltd that:

> *The local Waverton Precinct is concerned that agreement may be reached which does not require BP to remove all the concrete masonry on the upper levels of the site. However, in terms of the lease, BP is obliged to remove the wall and the slab in the course of remediation, at no cost to the public, unless these are deemed to be improvements to the site. The removal of this slab and wall would reinstate the sandstone headland known last century as 'the Gib', which would form part of the detailed Landscape Plan which Council is preparing.*
>
> *I would like to take this opportunity therefore to advise both BP and State Property that North Sydney Council and the local community would like the slab and the supporting walls removed as part of the remediation process.*

Notwithstanding this advice, Council recognises that a primary purpose in preparing this Conservation Management Plan is to review existing proposals for the site on the basis of a sound understanding of its heritage values.

9.15 Curtilage

In considering appropriate policies and strategies for the conservation and management of the three Waverton Peninsula industrial sites, it is particularly relevant to consider their appropriate curtilage. In this context the term 'curtilage' is used to mean the area of land (including land covered by water) surrounding an item or area which is essential for retaining and interpreting its heritage significance.

The NSW Heritage Office and Department of Urban Affairs and Planning have prepared a *Heritage Curtilages* guideline document which outlines a range of approaches to defining the appropriate curtilage for heritage items. These guidelines recommend consideration of issues such as:

- historical allotments;
- design, style and taste;
- functional uses and interrelationships;
- visual links;
- scale;
- significant features;

- vegetation; and
- archaeological features.

In considering these matters, the guidelines suggest that a curtilage may be defined in four broad ways:

- a lot boundary;
- a reduced heritage curtilage;
- an expanded heritage curtilage; and
- a composite heritage curtilage.

For all but heritage curtilages defined by lot boundary, the guidelines suggest that the following matters should be addressed:

- *Has the significance of the original relationship of the item to its site and locality been conserved?*
- *Has an adequate setting for the heritage item been provided, enabling its heritage significance to be maintained?*
- *Have adequate visual catchments or corridors been provided to the heritage item from major viewing points and from the item to outside elements with which it has important visual or functional relationships?*
- *Are buffer areas required to screen the heritage item from visually unsympathetic development or to provide protection from vibration, traffic noise, pollution or vandalism?*

Having regard to these issues, the nature of the three industrial sites and the matters set out earlier in this section, it is considered appropriate to define both specific site curtilages for each site, and a wider curtilage for the Waverton Peninsula, of which they are part.

9.15.1 The BP Site

The curtilage of the BP Site, shown in Figure 9.1, is defined as the existing property, fronting Balls Head Road, which was formerly part of the BP site.

This curtilage boundary incorporates all known historic features, with the exception of an excised area of freehold land to the north and a section of sandstone seawall that extends into the Woodley's site to the southwest, covering all of the known nine layers of the site's history. The boundary therefore has regard to historic land use and boundaries, as well as individually significant and contributory elements and archaeology. (Issues pertaining to visual links and views are considered separately as part of the Waverton Peninsula.)

9.15.2 Caltex Site and Coal Loader Site

Having regard to their location adjacent to each other, their historical relationship and prospective future tenure and use, the Caltex site and former Coal Loader site are combined within a single curtilage that takes in all of the current landholdings on both properties. The Caltex/Coal Loader curtilage is illustrated in Figure 9.1. For the Coal Loader site, which could arguably have a curtilage defined by its property boundary alone, the addition of the Caltex site provides both a buffer area and visual screen from potentially visually intrusive elements to the north. For the Caltex site, itself already reduced from its historic allotment, the amalgamation with the Coal Loader site provides long-term opportunities for maintenance of an appropriate physical and visual setting.

9.15.3 The Waverton Peninsula

The three industrial sites: BP, Caltex and Coal Loader, are integral elements of the historical and physical setting of the Waverton Peninsula. This precinct, which is distinctive because of its unique setting, topography and combination of natural and built elements, within the North Sydney context, is an area of outstanding heritage significance. It is therefore important that conservation and management of the three industrial sites have regard to this broader setting.

For that reason, this Conservation Plan also considers the Peninsula in relation to the heritage curtilage guidelines outlined above, and defines the Peninsula curtilage as a broad area taking in the bays on either side and sections of Harbour to the south. This curtilage for the Waverton Peninsula is shown in Figure 9.2.

9.15.4 Distant Views

The selection of immediate property curtilages and the broader setting for the Waverton Peninsula provide some guidance for the conservation of the three industrial sites in an appropriate setting, but do not define all such requirements. Another important element of these places is the views that are afforded to and from each of the sites, particularly the views to and from the water and views to and from the Sydney Central Business District. These key views are also indicated in Figure 9.1. Although not included within the physical boundaries of the nominated curtilage, these views also contribute to the significance of the industrial sites.

9.16 Archaeological Potential

The BP site has substantial historical archaeological potential, particularly in the vicinity of the original foreshore occupied by Wollstonecraft and Berry, the General Screw Steam Company and the Torpedo Depot.

Archaeological potential is based on the possibility of the survival of archaeological material from the site's historic occupation. This resource has the potential to augment the documented material and

may provide information pertaining to specific research themes such as the operation of harbourside industries, trade and distribution.

The significance of archaeological material is determined by how it may contribute to the documented history of the site and to Historical Archaeology generally.

The likelihood of archaeological material surviving from each phase of the site's occupation depends on the nature of the material and the level of subsequent disturbance. The foreshore reclamation may have preserved archaeological material. The tidal nature of the Harbour jeopardises the survival of archaeological material associated with the current wharves activity.

9.16.1 Archaeological Zones

The BP site

The site has four main areas of historical archaeological potential:

i the southwestern section of the site in the vicinity of Berry's Stone store, house, wharf;

ii the site of the first 1923 fuel storage tank, warehouse and building for the Anglo-Persian Oil Co;

iii site of the 1920s store on 'Gibraltar'; and

iv southeast terrace and retaining wall created to house the second phase of early tanks 1926.

The Caltex site

The site has the archaeological potential to confirm the location and nature of HC Sleigh's fuel tanks after consultation of aerial photographs and field study.

The Coal and Allied Coal Loader Site

The site has two known areas of historical archaeological potential:

i the grass slope between the administration building and workshop/WC. which conceals a stone wall; and

ii the area between the sites of the fuel storage tanks and the pump room beneath the wharf.

The site also has areas of archaeological potential which may reveal information about the occupants and site operation:

i the work areas in the vicinity of the street of workshops;

ii work areas in the vicinity of the tunnel entrance and the tunnels themselves; and

iii the underfloor areas of the administration building, pump room and mess room.

(These zones are shown in Figure 6.15.)

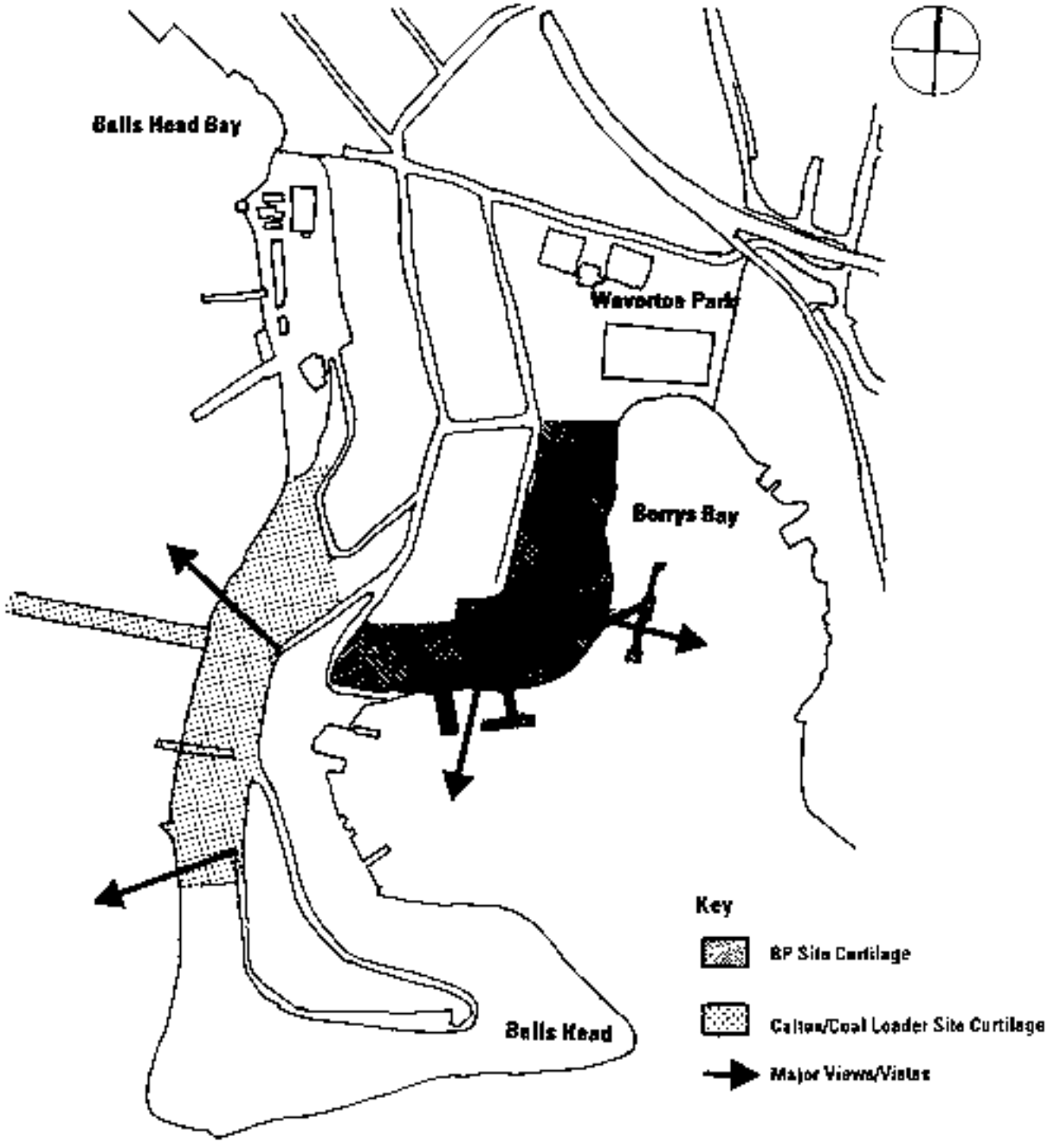


Figure 9.1 Waverton Peninsula industrial sites: curtilage and views.

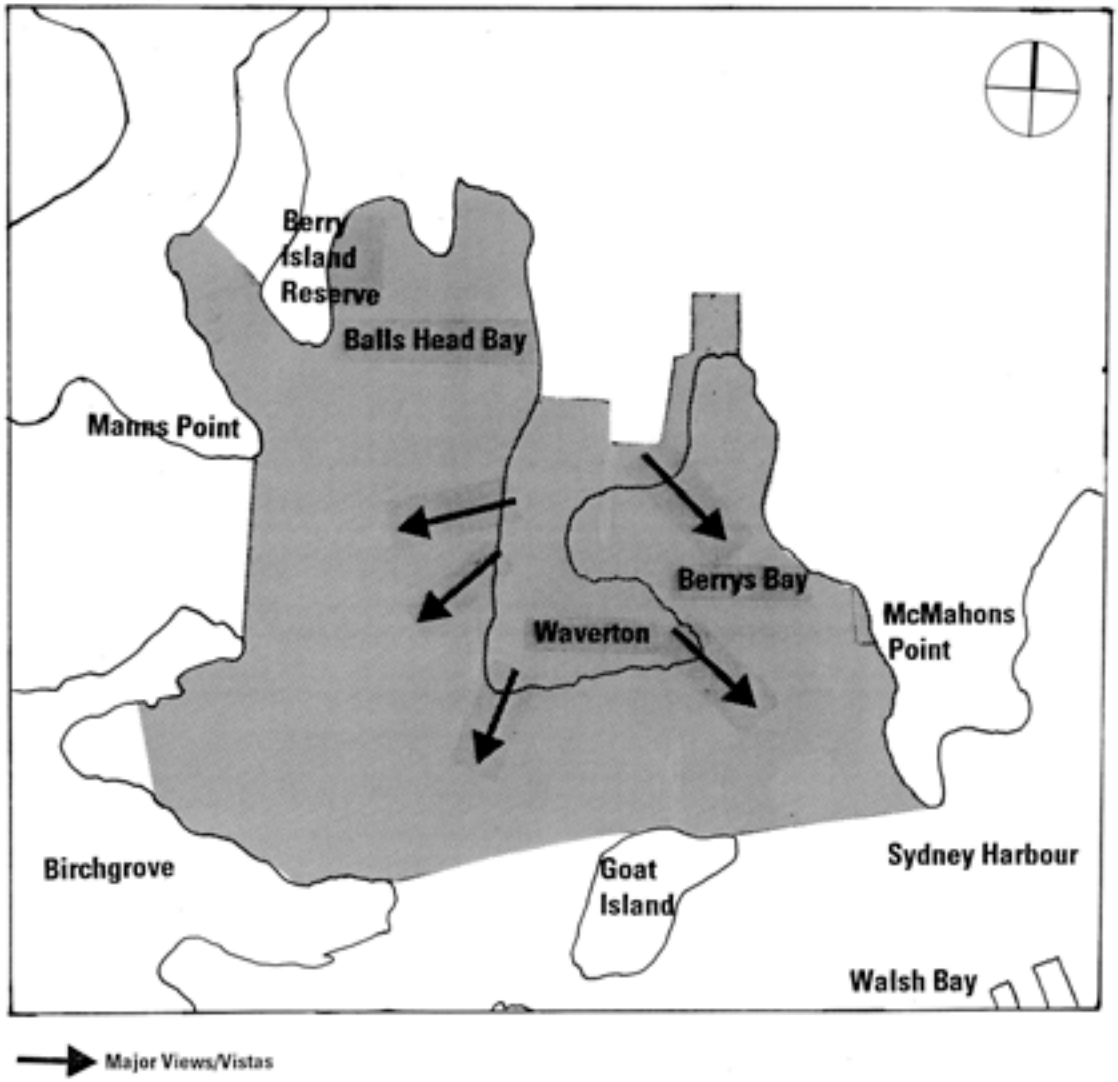


Figure 9.2 Waverton Peninsula curtilage, visual catchment and major views.

10.0 Resolving Potential Conflicts

10.1 Preamble

By and large, the heritage values of the three industrial sites on the Waverton Peninsula can be retained, while at the same time meeting the range of constraints and requirements discussed in Section 9.0 of this report. Given that the Masterplan process has already resolved a strategy for the treatment of these sites which responds to the statutory context, community concerns and stated heritage conservation objectives, it is not surprising that this Conservation Management Plan is in alignment with the general thrust of the Strategic Masterplan proposals.

However, there are three major elements of the sites, about which there is conflict between retention of heritage values and other constraints and requirements. These are:

- the 1930s timber wharf on the BP site, where the physical condition militates against retention and conservation;
- the Coal Loader wharf, where the extent of repairs and their costs is a major barrier to retention and conservation; and
- the upper concrete retaining wall of the BP site where some community views and a Council resolution differ from the Masterplan proposals and this Conservation Management Plan's assessment of heritage significance.

Before proceeding with presentation of a resolved Conservation Policy for the sites, this section of the Conservation Management Plan outlines some of the available options and their ramifications and indicates a recommended course of action.

10.2 The 1930s Timber Wharf

The 1930s timber wharf is a relatively early relic from the twentieth century fuel storage operations at the BP site. However, structural advice based on external inspections indicates that, for practical purposes, it is beyond reasonable or economic repair. Indeed, if this wharf were to undergo a process of physical repair, the process would involve substantial replacement of existing fabric, giving rise to doubt as to what was actually being conserved. Nevertheless, timber structures do have a tradition of maintenance involving replacement of defective fabric with new, such that over time the form of the item (rather than its fabric) is what is retained.

10.2.1 Options

Broad options available for future management of the 1930s wharf are:

- repair;
- reconstruction using new fabric;

- adaptation; or
- demolition.

Repair is technically feasible, but impractical and expensive. Given the very dilapidated condition of the structure there is considerable doubt as to how much original fabric can be incorporated in a retained structure. Having regard to the significance of the design and concept (rather than the significance of actual fabric), repair is not considered reasonable, in all the circumstances.

Reconstruction of the 1930s wharf would represent a good conservation outcome, in that traditional and maintenance activities would eventually result in totally new fabric, irrespective of the care taken with contemporary repairs. Reconstruction could be undertaken immediately, as part of short-term site management, or deferred pending longer-term resolution of planning issues, provided that adequate records are made of the existing structure and samples are retained for reference purposes. As the detailed design of the 'Working Waterfront' component of the site is yet to be resolved, short-term reconstruction would not be appropriate. However, in the event that demolition occurs, this should be preceded by detailed archival recording, to a standard which would allow long-term reconstruction.

Adaptation of this wharf, either for a new use, or by change to its fabric or design would not be a good conservation outcome, as the significance of the structure rests firstly with its tangible link to early twentieth-century industrial and maritime activities and secondly with its ability to demonstrate technologies of the time. Both would be compromised by adaptation works. In the event that some form of wharf is required at this location, as part of the 'Working Waterfront' implementation, it would be preferable to provide for faithful reconstruction rather than adaptation and historical mimicry.

Demolition of the wharf does not provide a good conservation outcome, but is certainly practical from an ecomonic and physical point of view. As indicated above, short-term demolition is considered to be a reasonable course of action provided that adequate records are made to allow faithful future reconstruction.

10.2.2 Policy Direction

It is clearly premature, in the absence of a detailed plan for the 'Working Waterfront', to resolve a long-term plan for the 1930s waterfront as part of this Conservation Management Plan. However, the plan recognises the severe physical and financial challenges that attach to its retention. The appropriate policy position, at this stage, is therefore to consider its long-term retention, on the basis that this may well be achieved through short-term comprehensive archival recording, demolition and subsequent consideration of faithful reconstruction as part of the detailed design development for the 'Working Waterfront' precinct.

10.3 The Coal Loader Wharf

The wharf on the Coal Loader site is an item of outstanding significance, not only in the context of the Coal Loader and the Waverton Peninsula, but also as an important industrial icon within Sydney Harbour. Built as a utilitarian feature, the timber structure of the wharf is now supported by an inserted steel frame. The frame itself, though requiring some remedial work, is in generally good condition. The timber wharf elements are not, and present major hazards both to visitors to the site who are brave enough to venture onto the wharf and to nearby uses of the Harbour, as timber elements from the structure are now in the habit of coming adrift.

10.3.1 Options

Potential options for the future treatment of the Coal Loader wharf include:

- no action;
- stabilisation of the existing structure;
- reconstruction;
- partial reconstruction;
- retention of the steel frame;
- adaptation; or
- demolition.

The 'no action' option is impractical, given the self-evident public safety and liability issues that would arise.

Stabilisation of the existing structure would be a good short-term conservation option. Although this work has not been costed, it would be physically feasible to secure loose timbers, to erect suitable barrier fencing and signage and to 'mothball' the structure for the time being. However, this is not a permanent solution, given that the timber elements will continue to deteriorate and eventually fall apart of their own accord, with potentially serious consequences.

The next option involves reconstruction of the wharf. (Repair is not considered here as a separate alternative, as the severely degraded nature of the timber structural elements and decking (as well as their corroded steel hardware attachments) effectively prevent any meaningful form of repairs.) If the wharf is to be conserved as a historic relic, it will be necessary to rebuild its timber substructure and superstructure. This would provide a good conservation outcome, in that historic timber structures have a tradition of replacement of defective members, so that over time it is the form and design, rather than original fabric, which is retained. However, this approach would be extraordinarily expensive, to the point of being prohibitive. There are no current firm cost estimates available, but earlier reports put the cost of effective repair in the order of $3 million.

Partial reconstruction of the timber wharf elements, attached to and supported by the existing steel frame, could be considered and would provide a reasonable compromise that has regard to the heritage value of the element and the practical realities of its condition and costs involved in repair. For example, the existing steel structure, which is largely in good condition, could be retained, with defective timber elements removed and an indicative reconstructed section of the timber substructure and superstructure installed, by way of demonstration and to provide visitor amenity. The precise section to be so treated would be a matter for detailed design.

A lesser option, which retains the general form of the wharf, but not its distinctive timber appearance, is removal of the timber structure and retention of the existing steel frame. From a physical and practical point of view this should be achievable but does not result in a good heritage outcome in that the significance of the wharf rests in the design, appearance and rarity of its massive timber structure, rather than in the more recent steel support. It would also be feasible to undertake detailed archival recording of the timber structure, removal of timber and retention of the steel, with a view to future reconstruction of all or part of the timber elements.

Adaptation would involve changes to the wharf design, fabric or use, so as to accommodate new uses and activities. There are a broad range of possibilities. Some or all of the timber and steel structure may be retained. The level of the decking may be adjusted, so as to make the wharf itself more accessible to visiting vessels. New elements, such as walkways or fishing platforms may be attached to the steel structure. Whatever the design solution that were to be chosen, it is highly likely that the existing timber elements would require removal, whether or not they were replaced in whole or part. The advantage of a robust adaptation is that it would create an opportunity for some form of economically viable future use, such as mooring of larger vessels or waterside commercial activities. However, adaptation which alters the distinctive visual characteristics, bold form and scale of the wharf would strike at the heart of its heritage significance and would not be good conservation outcome.

Demolition would not achieve a good outcome as the wharf is an integral part of the significance of the site and is a major heritage item in its own right. While demolition may be physically feasible and economical, it is not consistent with the conservation values or key planning objectives for the site.

10.3.2 Policy Direction

While the practical and financial difficulties associated with the conservation of the Coal Loader wharf are recognised, it is simply not possible to achieve a good heritage outcome for this site if the wharf is not retained and conserved. Future planning and management for this site should therefore focus on how this can best be achieved, with maximum retention of heritage values. The policy direction adopted in this Conservation Management Plan is therefore predicated on retention of the wharf, but formulated in a way that would allow for wide ranging consideration of options including partial reconstruction, retention of the steel frame or adaptation. In the short term, it is clearly preferable that the wharf be stabilised, and that public access be prevented/discouraged. Final resolution will

require development and costing of detailed proposals. In the meanwhile, as a short-term measure, it would be desirable to obtain detailed costings for the demolition of the existing structure and to seek an allocation of these funds from the NSW Government (or former lessee, as appropriate under the terms of the lease). These funds could then be held in trust, as a capital contribution to the future of this important structure. In the event that no feasible option for its retention can be achieved, the resources required for its (regrettable) removal would then be available. (A number of precedents for similar treatment of redundant public infrastructure assets exists, particularly the Gundagai road bridge and Malden suspension bridge.)

10.4 BP Site Upper Retaining Wall

The concrete upper retaining wall at the BP site has been the subject of debate and representations during the Conservation Management Plan process. The wall is significant as a massive industrial parapet that defines the site visually from the nearby water and from within as a modified, built landscape. The wall is part of the recent history of the site and, though neither old nor pretty, represents in a tangible way one of the layers of the site's history.

However, there have been strong community opinions expressed that the wall is visually intrusive and, because it is an element built within living memory that detracts from the site and from opportunities to reinstate original landscape and topography, it should be removed. This community opinion is not unanimous and views supporting the retention of the wall and the industrial character it creates have also been expressed. In response to strong community representations, Council has itself resolved that the wall and associated slab and fill should be removed.

Resolution of this potential conflict in the short term is desirable, as the immediate program of remediation works being undertaken by BP Australia provides the opportunity and resources for removal of the wall, if that course of action were to be selected.

10.4.1 Options

Options available for the future treatment of the upper retaining wall of the BP site include:

- retention including the associated fill and slab;
- retention of part of the wall, including associated fill and slab;
- retention of the wall but removal of the slab and fill; or
- removal of wall, slab and fill, with associated remediation/revegetation.

Retention of the wall, including associated slab and fill would provide a good conservation outcome, as the physical evidence of the most recent layer in the history of the site would be retained. However, the fill and slab (which are not visible from lower portions of the site, nor generally from the water) are not of themselves considered to be of moderate or high significance and therefore do not

warrant retention. There is therefore no apparent reason to proceed with retention of the slab and fill at this stage.

Retention of part of the wall, together with associated slab and fill, would contribute to a visual understanding of the hard edge industrial character of the site, but in a way that is demeaning to the integrity of the wall itself and which provides a tokenistic compromise in relation to the slab and fill. That is not to say that the wall, as a massive and robust feature, would not sustain high levels of intervention (eg cuts for access or removal of discrete sections) as part of an imaginative visitor amenity/public space/interpretation design.

Removal of the slab and fill behind the wall, but retention of the wall itself provides a good conservation outcome. The contribution that the wall makes to a physical and visual understanding of the twentieth-century history of the site is retained. The less significant slab and fill are removed and opportunities are provided for return of original topography and revegetation in the upper area behind the wall itself. Consistent with the Masterplan proposals, the wall is available, not only as a dramatic indicator of the altered topography of the site, but also as a resource to be used in the landscape design. There is no certainty that original landform and rocks remain undisturbed beneath the fill behind the wall, although that is a reasonable assumption.

Total removal of the upper level concrete retaining wall, together with slab and fill (or a minor variation of this approach, such as retention of a small section of the wall as a viewing platform), would not provide a good conservation outcome, as it would 'peel back' a recent layer of the site's physical history in a manner which disrupts its ongoing evolution and obscures a characteristic component of its important visual character as a harbourside industrial site. However, this approach would clearly receive strong support from a section of the local community and, in the short term, could utilise resources available only during the period of remediation works.

10.4.2 Policy Direction

Resolution of the conflicting views about the treatment of the upper concrete retaining wall on the BP site is the most vexatious issue confronting Council as it proceeds with implementation of the Strategic Masterplan. While community concerns and the specific Council resolution are recognised, the role of this Conservation Management Plan is to inform Council about requirements for retention of heritage values, in the light of the Strategic Masterplan proposals. The Masterplan proposes retention of this wall, a course of action that is supported by its heritage significance and the contribution it makes to the industrial character of the BP site. The ensuing conservation policy therefore provides for its retention.

However, the legitimate role of Council in deciding the future of this structure is recognised, as are short-term resource issues. It is therefore suggested that Council should adopt a staged approach, involving initial removal of the slab and fill, so as to better appreciate the nature of the remnant topography, and general effect, before making final decisions about the retention of the wall. In

relation to possible loss of demolition and removal resources, Council should urgently ascertain the likely cost to BP Australia of removal and seek a corresponding amount from that company, on the basis that it will be held in trust, pending a final resolution. In the event the demolition proceeds, the funds would then be available. In the event that demolition does not proceed, a portion of the funds could be returned to BP Australia and a portion could be directed towards long-term conservation of the BP site — providing a good outcome for both parties.

11.0 Conservation Policy

11.1 Philosophical Approach

The primary purpose of a Conservation Management Plan is to establish policies for the ongoing conservation and management in a manner that maximises retention of heritage significance. Defining a Conservation Policy for the Waverton industrial sites requires resolution of a complex range of constraints and issues, as set out in Section 9.0. The high heritage values of the three sites, both individually and as a set within the Waverton Peninsula, impose an overarching obligation for heritage conservation. In addressing the appropriate philosophical approach for the Waverton Peninsula Industrial Sites, it is worthwhile to consider what *The Illustrated Burra Charter* says about the importance of place:

> *One of the fundamental reasons for conserving places is that they contain information that documents, photographs, drawings, film or video cannot. Regardless of how skilfully a place may be captured on film or how evocatively it may be described, there is no substitute for the experience of the actual place.*

These sentiments are particularly apt for the Waverton industrial sites. Consider, for example, the operation of maritime industry in the harbour — a fast disappearing activity which has been of fundamental importance to the economic growth and development of the city. Through reading, research or viewing historic films, it is possible to gain quite a comprehensive knowledge of industrial activity in the harbour. However, by visiting the large-scale sculptural cuttings at the BP site, the imposing form of the Coal Loader platform or experiencing the dramatic scale and proportion of the Coal Loader wharf, visitors can perceive aspects of the nature of the Harbour's industrial activity that cannot be revealed by documents alone. Indeed, the place itself provides an opportunity for visitors to come back a second or third time to see the place in a new way.

In other words, as physical indicators of a key aspect of the history and growth of the area, the three industrial sites of the Waverton Peninsula warrant conservation and interpretation. The physical aspects of the sites themselves require careful and active management and their story needs to be told in a way that engages imaginatively with visitor experience.

Having regard to these conservation and interpretation requirements and the constraints and issues set out in Section 9.0, the following principles are identified as a fundamental philosophical basis for the Waverton industrial site conservation policy:

- heritage conservation is a primary management objective for the Waverton Peninsula industrial sites;
- heritage conservation should have regard to the total resource, including all chapters of the site layered history;

- decision making must be based upon proper understanding of heritage significance and maximising retention of significance;
- a cautious approach is required where actions may have adverse heritage impacts;
- conservation should be undertaken in accordance with well-accepted guidelines;
- conservation and management of the place should have regard to associated places and should involve interested persons and organisations;
- the stories associated with the place, covering all aspects of its environment and history, should be told on site; and
- appropriate permanent statutory protection should be provided.

11.2 General Conservation Policy

The Waverton Peninsula industrial sites BP, Caltex and Coal Loader, are places of heritage significance that should be retained and conserved as community assets.

The Statements of Significance for the Waverton industrial sites provide the basis for their natural and cultural resource management.

Retention of identified significance and conservation of the industrial sites will have primacy over other conflicting management objectives.

The Waverton industrial sites will be conserved and managed in accordance with the following principles and guidelines:

- the *Burra Charter, (The Australia ICOMOS Charter for Places of Cultural Significance);*
- the *Australian Natural Heritage Charter* and associated guidelines; and
- the Draft Guidelines for the protection, management and use of Aboriginal and Torres Strait Islander Cultural Heritage Places.

The conservation of the Waverton industrial sites will adopt a total resource approach and will extend to all areas and elements such as landscape, built structures, cultural deposits, artefacts, records, memories, as well as uses and activities.

Caution will be applied in making decisions which may damage the natural or cultural environment over time.

Actions which may result in a loss of heriatge significance must be reversible. The Waverton industrial sites will be protected from physical damage by appropriate security and maintenance measures.

Interpretation of the history and significance of the place is fundamental to its conservation.

The Waverton industrial sites will be formally identified as heritage items and provided with an appropriate level of statutory protection.

Ultimate responsibility for decision making in relation to the Waverton industrial sites will rest with North Sydney Council.

11.3 Landscape, Setting and Curtilage

The Waverton Peninsula industrial sites will be managed as part of a complex cultural landscape, recognising the contribution of all elements to the whole. The existing topography and landform, reflecting natural topography and layers of historic occupation and use will be generally retained, with minor alterations to provide for access and public safety.

Major views to and from the sites, especially views to and from the water, will be retained. Significant views within the sites will be maintained. Former views may be reconstructed (where there is adequate evidence) by removal of visually intrusive elements (including vegetation), provided that such action does not have other adverse impacts on the significance of the site.

The stark industrial visual character of the sites will be retained and any new landscape elements will contribute to this character.

All existing locally indigenous vegetation on the lower eastern slopes of the BP site, lower western slopes of the Caltex site and the southern end of the Coal Loader site will be retained.

New plantings may be introduced provided that they are selected from species currently (or formerly) present on the site, are not potentially invasive weed species, contribute to the overall significance of the site and/or fulfil an important operational function and, in doing so, do not detract from the significance of the site.

Significant structural elements such as roads and paths will be maintained in their existing location. Former structural elements may be reconstructed if adequate evidence exists. Materials used in maintenance or reconstruction of structural landscape elements should be traditional materials, already used on the site.

New materials may be introduced as part of structural landscape features only where they are essential for operational safety reasons, have minimal adverse impact on the significance of the site or are reversible.

Individual landscape elements which make a particular contribution to the history and significance of the industrial sites should be retained and conserved, in particular:

- the semicircular sandstone cuttings on the eastern side of the BP site should be retained;
- the built terraces on all three sites should be retained and remain visible;
- bund walls and retaining walls on the BP site should be retained;
- the vegetated slope on the Caltex site should be retained as an important example of remnant harbourside natural landform and vegetation;
- on the Coal Loader site the sight lines should be preserved between the control room in the southwest corner of the administration building and the coal platform, northern entrance;
- the relationship between the vehicular gate from Balls Head Road, the Coal Loader platform and weighbridge and the pedestrian access path to the original stone office should be retained; and
- the garden beds and ornamental walls constructed during the depression period between the Coal Loader administration building and the Coal Loader platform should be retained and conserved.

11.4 Aboriginal Heritage

The management of the Waverton industrial sites will include conservation and management of the Aboriginal heritage values of the place.

The right of Aboriginal people to be involved in making decisions that affect their cultural heritage and their concerns in this regard will be acknowledged. Provision will be made for ongoing consultation with relevant Aboriginal people.

Management and interpretation of Aboriginal values at the site will be based on a detailed understanding of the Aboriginal resource and values of the site and surrounding area.

Identification, assessment and physical management of Aboriginal sites will be carried out or supervised by suitably qualified personnel.

The three known Aboriginal sites within the Waverton industrial sites boundaries will be physically stabilised and conserved.

Appropriate protocols and procedures will be implemented to ensure that any subsurface unknown Aboriginal cultural heritage is not damaged, disturbed or concealed.

Interpretation of the Waverton industrial sites will include the Aboriginal history of the sites and relevant contextual history and will be formulated in consultation with the Aboriginal community.

11.5 Physical Conservation

All types of built element, including buildings, walls, cuttings, ruins, foundations and other structures, contribute to the significance of the Waverton industrial sites.

Elements of high and moderate significance will be retained and conserved, where possible.

Elements of low significance and intrusive elements may be removed, following archival recording.

Significant fabric of elements of high and moderate significance will be preserved and restored. Missing elements of original fabric may be reconstructed where:

- sufficient information is available (hypothetical reconstruction should not occur); and
- reconstruction is considered essential to the conservation of original fabric; or
- reconstruction is required for operations, adaptation or interpretation and is reversible.

Built elements may be adapted for new use, or through construction of new elements, provided that the adaptation work is reversible or required for conservation, operation or interpretive purposes, or in order to comply with relevant fire safety, health and building or other statutory controls.

Adaptation of built elements will occur at places of lesser relative significance, in preference to those of greater significance.

Where existing built structures are adapted for new uses, these uses will be compatible with the significance of the element and will not obscure important historical associations or the ability of the element to demonstrate its historic use.

Intervention in significance fabric, including construction of conduits for provision of services, will always occur through elements or spaces of lesser significance in preference to those of greater significance.

New built elements may be constructed within the Waverton industrial sites provided that they do not have a substantive adverse impact on the overall heritage significance of the site or are part of a temporary, reversible operational or interpretation programs.

Foundations and other industrial relics are recognised as a fundamental part of the history and significance of the Waverton industrial sites and will be conserved as ruins, or adapted for new uses or as part of the interpretation program.

Appropriate maintenance procedures will be developed, documented and implemented to ensure the ongoing long-term maintenance of the built elements of the sites.

11.6 Industrial Relics

Industrial relics are recognised as important contributors to the significance of the Waverton Peninsula industrial sites.

Industrial relics of high and medium significance will generally be retained and conserved, where practical.

11.6.1 BP Site

The following elements will be Retained and Conserved:

- sandstone and concrete bund wall;
- 1960s steel dolphin wharf;
- 1960s concrete, brick and stone retaining walls;
- BP Sign in Larkin Street;
- upper concrete retaining wall (excluding slab and fill); and
- encircling drainage channel for former fuel tanks.

The following elements will be considered for retention and conservation:

- 1930s timber wharf;
- concrete fuel and drainage channels, canals, retention structures and valves and associated remnant pipes; and
- upper depot (location, envelope and form — which define the maximum envelope possible for future buildings).

The following elements may be removed:

- upper slab and associated fill (in whole or part);
- upper depot building;
- first aid room;
- lower workshop; and
- 1960s timber T-wharf.

11.6.2 Caltex Site

The following element will be retained and conserved:

- basin cuttings associated with the two tanks used to store crude oil for Mexico.

The following element will be considered for retention and conservation:

- modified and extended office.

The following element may be removed:

- intrusive extension to modified office.

11.6.3 Coal Loader Site Buildings and Structures

The following elements will be retained and conserved:

- Coal Loader platform and rails for unloading gantry crane;
- Coal Loader reclaim tunnel timber supports and rails for travelling conveyor, timber sleepers of track for skips, southern bund wall for 1976 upgrade;
- evidence of dam walls in tunnel No. 4;
- Industrial wharf, Hoskins steel outloader frame, pump room and equipment;
- sandstone block retaining walls, sea wall and boundary walls;
- sites of two large bunker fuel tanks and underground pipes;
- sandstone block original office;
- brick administration office, pump house, original workshop/store/wc;
- mess room;
- bitumen internal road surface, weighbridge; and
- signage on ramp of Coal Loader and numbering on coal platform walls, inside reclaim tunnels and on buildings.

The following elements may be removed:

- north extension to workshop; and
- western concrete brick extension of mechanics' shop.

11.6.4 Coal Loader Moveable Items

The following elements will be retained and conserved in situ:

- Mead Morrison equipment in tunnel No. 1;
- geared bin gates in tunnel No. 2 and tunnel No. 3; and
- pumping equipment.

The following elements will be relocated to beneath the Mead Morrison travelling feeder in tunnel No.1:

- Mead Morrison coal skip No. 6;
- associated rails (from display near administration building).

Adequate security will be provided for moveable items, enabling them to remain on-site.

Expert materials conservation advice will be obtained in relation to moveable heritage items.

11.7 Archaeology

The Waverton Peninsula industrial sites include extensive known and potential archaeological resources, both indigenous and non-indigenous. Archaeological resources will be conserved in situ where possible.

Works will be designed and planned in a manner which minimises impact on both subsurface and other archaeological resources.

All subsurface disturbance will be preceded by site-specific consideration of archaeological potential and monitoring during on site work.

Where disturbance of subsurface areas with archaeological potential occurs, required permits will be obtained, consultation will occur with authorities and or the Metropolitan Local Aboriginal Land Council (as necessary), and appropriate archaeological investigations will be undertaken.

Exposed archaeological features will be retained and conserved.

Artefacts (and records) resulting from archaeological investigations will be appropriately conserved, catalogued, curated and lodged with the relevant repository.

11.8 Use

It is recognised that it is no longer practical for the Waverton Peninsula industrial sites to continue to operate as fuel depots. However, uses which continue a maritime industrial tradition will be permitted and encouraged.

The three industrial sites may be used for a mixture of community and commercial activities, provided that public access is maximised and adverse impacts on heritage significance are minimised.

Future uses for the three industrial sites themselves, and individual places or elements within them, should be selected to allow for retention of residual landforms from successive historical operation, as well as significant buildings, structures and equipment.

Significant, but fragile components of the sites may be set aside from public access or commercial use for the sole purpose of conservation.

Preference will be given to those uses which provide for conservation and ongoing maintenance of heritage assets.

The Waverton Peninsula industrial sites are recognised as dynamic and as significant for their evolving history: future uses of the place will be allowed to continue this evolution — the sites will be conserved and managed in a way that does not prevent ongoing change.

11.9 Interpretation

Interpretation is recognised as integral to the conservation of the Waverton Peninsula industrial sites.

Interpretation will be provided on site, in a manner that is consistent with this Conservation Policy.

Interpretation will enhance the awareness of visitors of the heritage significance of the sites, stressing the evolution of the landscape from its natural forms, through Aboriginal occupation, first European settlement, more than 170 years of industrial uses, to the conservation movement and recent planning decisions.

Interpretation will maximise retention of the heritage significance of the place and will use significant site features and elements wherever possible.

Interpretation will encourage the widest possible public interest, visitation and participation in interpretation activities.

Interpretation will make use of a range of media and devices, with an emphasis on innovative best practice.

Interpretation will interpret the sites in the context of the evolutionary history of North Sydney.

11.10 Associated People

Opportunities will be provided for active involvement by interested people in the conservation and management of the Waverton Peninsula industrial sites.

Major decisions regarding conservation or development activity will employ a consultative/informative approach, so that interested people are informed and have an opportunity to express an opinion.

Structured processes will be put in place to facilitate involvement by interested people and other relevant stakeholders.

11.11 Records and Research

Historic records are an important element of the associative significance of the Waverton Peninsula industrial sites.

Copies of all known relevant records will be kept, as a collection, at the Stanton Library.

Records will be professionally catalogued and archived to a high professional standard.

Record management will facilitate easy access by both Council staff and bona fide researchers.

Research regarding the sites will be encouraged and co-ordinated, so as to ensure use of available resources to maximum effect.

11.12 Adoption and Review

This Conservation Management Plan will be considered and adopted by North Sydney Council.

This Conservation Management Plan will be reviewed during the development of detailed landscape and other design plans for the site.

This Conservation Management Plan will be reviewed at intervals of not less than five years.

12.0 Strategic Masterplan Review

12.1 Context

The Strategic Masterplan for the Waverton industrial sites was adopted by North Sydney Council in January 1999, following an extensive program of community and stakeholder consultation and interaction. The Masterplan provides clear guidance on a range of planning, management and design issues. The preparation of this Conservation Management Plan fulfils an important key recommendation of the Masterplan, and is an essential precursor to development of detailed design and interpretation proposals and the Masterplan implementation.

In broad terms, the Masterplan provides for a combination of uses and activities at the three industrial sites including:

- public recreation parkland, comprising bushland management and regeneration, open public access and unstructured recreation, with additional activities such as rock climbing, walking, cycling, viewing and local events as well as public access to the water;
- public recreation/buildings and structures involving a combination of open and controlled public access, combined with opportunities for commercial activities, visitor information and support services, local amenities and arts/cultural events; and
- a 'Working Waterfront' focused on a former maritime precinct, including boat building, repair, mooring and chandlery.

The Conservation Management Plan has been prepared in the knowledge of, and in response to, the Masterplan proposals. However, it is clear in the study brief and throughout the study process that a primary function of the Conservation Management Plan is to advise on any changes which are recommended to the Masterplan proposals. While some adjustment and fine tuning of the proposals, and provision of additional detailed guidance is provided by the Conservation Management Plan, the overall concepts, strategies and indicative proposals of the Masterplan are strongly supported.

This document does not reiterate the detail of the Masterplan proposals, but for convenience considers each of the major site strategies, following the format used in the Masterplan itself.

12.2 Strategies for Early Access

The emphasis placed on securing early public access to the site is supported, not only in response to stakeholder and community concerns, but also on the basis of the heritage values of the sites themselves and the need for these values to be communicated to an interested community.

The specific proposals for the Coal Loader platform, including a temporary metal walkway, part reconstruction of the seaward wall gantryway and early tunnel access, are supported.

The suggestion that parts of the Coal Loader tunnel may be resurfaced or that ceiling structures may be introduced warrants reconsideration. While the need for removal of loose materials and installation of lighting is recognised, it is important that the tunnels are presented as robust industrial features that display evidence of real wear and tear.

The use of a metal walkway or stairway to control access and provide early access to the BP site is supported.

12.3 Land Use

The overall mix of land uses and their allocation to specific elements of the three sites is supported. The BP site division of 'Working Waterfront' and 'Public Recreation' is supported. Indeed, the proposals for the waterfront are an important element of retaining the significance of the use of this site for industrial and maritime purposes.

The use of some of the northern cuttings on the BP site for local events and recreation pursuits is supported, particularly given the robust nature of these sites. In conjunction with these proposals and in accordance with the interpretation strategy proposed in this Conservation Management Plan, consideration should be given to introduction of large sculptural elements which convey a physical sense of the nature and scale of the BP site operations.

The proposed mix of commercial operations, community events and visitor services on the Coal Loader site (including the Caltex site) is strongly supported.

Proposals for the Coal Loader wharf should be further developed, having regard to issues associated with structural feasibility, public safety and cost. In particular, every effort should be made to provide public access to the wharf structure and to the fascinating industrial machinery in the pump room, beneath the superstructure, at the shore (eastern) end.

12.4 Circulation and Access

In general, proposals for circulation and access are supported. Linear passage through the sites, providing a range of experiences and interfaces with topography and industrial relics, is important to maximise interpretation of their significance and history.

In particular, visitors should be encouraged to utilise pedestrian links between Waverton Park and Balls Head through the sites, along both eastern and western sides of the Peninsula.

It is not considered imperative to provide pedestrian access through all of the Coal Loader tunnels. If particular tunnels are to be selected, tunnels 1 and 2 are preferred, because of their ability to demonstrate the operational processes of the site.

Pedestrian/visitor access should be provided to the lower level of the Coal Loader wharf, to experience the stark and dramatic visual quality of the repetitive geometrical structural forms, and to view the historic pumping equipment.

The proposed closure of a section of road adjacent to the entry to the Coal Loader site is considered to be essential, in order to provide appropriate conservation and interpretation of the Aboriginal engraving site.

12.5 Conservation Strategy

The goals, objectives and strategies put forward in the Masterplan conservation strategy are strongly supported.

The recommended overriding principle of a cautious approach, involving retention/adaptation/ interpretation of the smaller industrial relics is of major importance to detailed design development and Masterplan implementation.

For practical reasons, this Conservation Management Plan recognises that it is unlikely to be feasible to retain and conserve the timber wharves on the BP site. However, consideration should be given to faithful reconstruction to the 1930s (wide) wharf if that is suitable in the context of the establishment of the 'Working Waterfront'.

Having regard to the significance of its visual appearance, consideration should also be given to options for retention of all or part of the timber components of the Coal Loader wharf, even if these are reconstructed.

The conservation strategy should include physical conservation (and access and interpretation) of the historic pumping equipment beneath the shore (eastern) end of the Coal Loader wharf.

Consideration should be given to options for including the freehold land along the northern edge of the BP site (off Balls Head Road) within the public domain, or minimising the visual impact of any new development on these sites. In addition to the landscape/visual screening suggested in the Masterplan, an active interest should be taken in the location and design of any new features, so that these avoid or minimise adverse heritage impacts.

Care should be taken in the proposed establishment of 'new plant communities' on the upper levels of the BP site. While the recovery of original topography and reinstigation of vegetation is important, this should be undertaken in a context where the overall presentation is of a conserved and adapted industrial place.

12.6 Visual Character

The visual character goals, objectives and strategies are supported.

The conservation policy reinforces the need for retention of major views to and from both the BP site and the Caltex/Coal Loader site.

During detailed design development, the Masterplan strategy should address the potential visual impact of any new development on the freehold part of the BP site (immediately to the north adjacent to Balls Head Road), particularly the impact on views to the site from the south.

If feasible, the dramatic views available from the end of the Coal Loader wharf should be made available to visitors.

Intrusive vegetation which obscures key sight lines on the Coal Loader site should be removed. These include new gardens on the driveway southeast of the administration buildings and recent tall plantings between the control room and the Coal Loader platform and wharf.

12.7 Design, Planning and Management Principles

The statutory approach advocated, utilising a Development Control Plan and Working Paper for Sydney Harbour and its Tributaries (NSW Department of Urban Affairs and Planning and the Office of Marine Administration 1998) is supported.

The suggestion that performance standards should be incorporated in a DCP is supported. Compliance with the policies of this Conservation Management Plan should be a key performance standard in the DCP.

12.8 Recommended Adjustments and Modifications

As previously indicated, the detailed research, analysis, assessment and policy development provided by this Conservation Management Plan supports the overall goals, objectives, principles and strategies of the Strategic Masterplan.

The details provided in this document augment and refine the Masterplan proposals, where they apply to the heritage management at the site. It is therefore important that the Conservation Management Plan become a key guiding document for the Masterplan implementation.

There are a number of relatively minor areas in which addition or modification to the Masterplan principles are suggested:

- options should be pursued for including the BP site freehold land to the work within the new public domain;
- provision should be made for additional retention/conservation requirements of any archaeological features revealed during current remediation works on the BP site or other subsurface disturbance;

- all subsurface disturbance within areas of archaeological sensitivity should occur subject to archaeological monitoring and in accordance with a permit issued by the Heritage Council;
- any disturbance of Aboriginal relics (either currently identified or discovered during works) should occur in consultation with the NSW National Parks and Wildlife Service and the Metropolitan Local Aboriginal Land Council and in accordance with the provisions of the National Parks and Wildlife Act;
- consideration should be given to faithful reconstruction of the BP site 1930s wharf as part of the detailed design for the 'Working Waterfront';
- proposals for revegetation of the majority of the upper hard stand area of the BP site should be considered carefully, having regard to the importance of the site as a waterfront industrial place;
- interpretation of the BP site should include large-scale physical elements, as well as traditional signage and interpretive media;
- all of the cuttings on the BP site (not only those specifically noted in the Masterplan) should be retained and conserved;
- the pump room and equipment beneath the shore (eastern) end of the Coal Loader wharf should be retained and conserved;
- resurfacing and other changes to the Coal Loader tunnels should only occur if essential for physical conservation reasons;
- intrusive vegetation which obscures operational sight lines on the Coal Loader site should be removed;
- opportunities should be pursued for visitation and viewing at the seaward end of the Coal Loader wharf;
- the Aboriginal engraving site adjacent to the Coal Loader entrance, and an associated area, should be included within the area covered by the Masterplanning and detailed design process; and
- compliance with this Conservation Management Plan should be an integral requirement and performance standard of the proposed Development Control Plan.

13.0 Interpretation

13.1 Preamble

Interpretation is the art of explaining the significance of a place to the people who visit it, with the objectives of promoting an understanding of its values and an appreciation of the need to conserve it. Interpretive media and devices vary widely, dependent on a number of factors, including the nature of the place, the profiles of the visitors, the budget available and the conservation policy. For a place such as Waverton Peninsula, interpretive mechanisms might include self-guided walking tracks, maps and brochures, interpretive signs, a visitor centre, school and public education programs, social events, heritage activities and public art. The extent of the sites and the substantial nature of the heritage resources they contain provide opportunities for experience of the place itself and/or the inclusion of large-scale structural elements as part of an interpretation program.

13.2 Interpretation Objectives

A comprehensive Interpretive Plan is a desirable adjunct to the Conservation Management Plan for the Waverton industrial sites, consistent with the conservation policies. The Interpretive Plan should have the following broad objectives:

- maximise retention of the heritage values of the place;
- emphasise and enhance visitors' awareness of the heritage significance of the place;
- stress the evolution of the landscape from its natural landforms, through Aboriginal occupation, first European settlement, more than 170 years of varying industrial uses, the conservation movement, and planning decisions;
- use best practice interpretive methods;
- encourage wider public interest in the place and participation in interpretive activities;
- interpret the sites in the context of the evolutionary history of North Sydney;
- establish and/or reinforce links with existing sites/areas interpreted by North Sydney Council; and
- develop skills to help in the understanding of the evolution of the Waverton Peninsula natural and cultural landscape.

13.3 Themes, Messages and Context

13.3.1 The BP Site

- The BP site can demonstrate a number of State Historical Themes, including Land Tenure (early land grants, subdivision);
- Environment (clearing for industry, conservation movement, bush regeneration);
- Transport (Wollstonecraft's and Berry's maritime operations, oil transport, containerised shipping);
- Industry (COR and BP use of the site, boat building and repair, ie 'the working waterfront'); and
- Persons (Wollstonecraft and Berry, those who worked on the BP site).

Much of the historic infrastructure relating to the use of this site as an oil storage depot has been removed. However, the remaining sandstone cuttings, railings, steps and stairways offer opportunities for interpretation of that use. The historic tradition of having a corporate identification sign on the site should be maintained through retention of the BP sign on the upper level to indicate the previous occupants. This practice could be carried through to the use of BP and/or COR corporate colours in the hand rails and pipes. The location and dimensions of one or more of the former tanks could be marked by a frame of lightweight but robust and durable material to give visitors an appreciation of the scale of the former structure/s.

The modified topography of the BP site offers opportunities for community activities, bush regeneration and interpretive trails linking this site with adjoining foreshore areas. Aboriginal heritage, environmental values and bush regeneration programs can be interpreted by a combination of signs and brochures consistent with those used elsewhere in the North Sydney local government area.

Photo-interpretive signs featuring historic images and/or maps could be used to show visitors what the site was like at various stages of its development.

The upper levels of the BP site offer panoramic views of the Harbour and Sydney CBD, and opportunities for innovative interpretation of the past industrial use by conserving surviving infrastructure.

13.3.2 The Caltex Site

The Caltex site can illustrate State Historical Themes including:

- Aboriginal culture (rock shelters);
- Land tenure;

- Environment (remnant indigenous vegetation, weed infestation and control); and
- Industry (Caltex occupation of site).

The major significance of this site derives from its remnant natural vegetation and evidence of Aboriginal occupation. The steepness of the slopes and the proximity to rock shelters and the adjacent HMAS Waterhen facility are likely to militate against foreshore access along this site. However, the upper levels of the site, currently occupied by an engineering contractor, have potential for interpretation of plant colonisation, weed control and bush regeneration. (The Aboriginal occupation sites can be best interpreted in a visitor centre or central interpretation point where there are fewer environmental constraints and threats.)

13.3.3 The Coal Loader Site

The Coal Loader site can demonstrate the following State Historical Themes:

- Aboriginal culture (rock shelter);
- Land tenure;
- Environment (remnant indigenous vegetation, endangered fauna in tunnels, landscape improvement);
- Industry (coal storage and ship bunkering);
- Technology (the Coal Loader, pump house); and
- Persons (former employees).

The Coal Loader site retains a wealth of industrial structures and features, including the Loader itself, the gantries, wharf, pumping station, retaining walls, former manager's residence and other buildings and the sites of former storage tanks. The wharf in particular has a majestic quality in its timber supporting structures but its condition and public safety issues are major constraints to access. In addition, the site has remnants of native vegetation, recent attempts at landscape amelioration and a highly disturbed Aboriginal rock shelter with midden deposit.

Interpretive objectives here should be focused on links with other natural areas and Aboriginal sites and explanation of the workings of the Coal Loader over its period of operation. Self-guided walking tracks, interpretive signs and face-to-face interpretation by former employees and/or trained operatives as part of public programs are obvious ways of explaining the history of the site to visitors.

More expensive interpretive devices appropriate for a visitor centre might include a working scale model of the Coal Loader or a computer simulation of the Loader in operation, based on archival photography.

One or more of the existing buildings associated with the Coal Loader site may be adapted as a visitor centre for the Waverton Peninsula, depending on more detailed assessment of such issues as their heritage values, public access and traffic generation. Their proximity to the Aboriginal rock engravings just outside the study area enhances their potential as a centre for the interpretation of the natural, Aboriginal and non-indigenous cultural heritage of the Peninsula.

13.3.4 Aboriginal Sites

The presence of known Aboriginal sites offers an opportunity for site protection by presenting Aboriginal heritage and engendering respect and appreciation of Aboriginal history and culture. This raises awareness and has a spin off for the protection of sites generally. Effective interpretation through visitor experience of the area's Aboriginal heritage requires the right balance between promotion and protection. Promotion will in fact protect places, and numbers of visitors should be managed. This management may be achieved by attracting visitors to specific interpretation areas which do not specifically identify fragile sites. This will also involve remediation work and periodic on-site monitoring.

The Masterplan opens this portion of the Waverton Peninsula to public use and would afford an access connection between Aboriginal sites in Waverton Park and the Balls Head Reserve. Pedestrian access offers a range of themes which can all be related to Aboriginal culture and history.

Design of tracks and walkways should accommodate projected visitor numbers, including special groups such as school parties. Promotional literature to schools should encourage groups to come with a guide.

Although just outside the study area, the associated engravings have enormous interpretive potential, once conserved, to be a focus for the explanation of Aboriginal art and occupation of the Waverton Peninsula. The nature and extent of interpretive facilities used at this site will be necessarily guided by conservation policy but could include a boardwalk, incorporation into a purpose-built visitor centre or integration with the adaptive reuse of the adjacent Coal Loader buildings.

The Metropolitan LALC have provided advice on which of the sites can be promoted and the manner in which this may be done. This advice is followed in the conservation policy and the ensuing implementation strategy.

Interpretation of the Aboriginal heritage of the Waverton Peninsula at the three industrial sites should encompass the following principles:

- Aboriginal heritage should be celebrated;
- the public should increase their awareness and understanding of Aboriginal sites and the value of Aboriginal cultural heritage;

- Aboriginal sites are protected by law;
- the Aboriginal community have a legitimate interest in the protection and management of their sites and a right to be involved in any decision-making process regarding their future use; and
- some sites are sensitive or have special significance and cannot be promoted or made public.

13.4 Primary Focus

Communication of the diverse array of themes and messages outlined above can best be achieved through particular interpretive focus at each of the industrial sites, and elsewhere on the Waverton Peninsula.

13.4.1 Aboriginal Heritage

The nature of the known Aboriginal sites within the Caltex site and Coal Loader site does not lend them to easy visitor access or on-site interpretation. Therefore, while it is important that the existence of these sites is acknowledged, through nearby signage or similar devices, the focus for interpretation of Aboriginal heritage is better placed at the major engraving site adjacent to the entrance to the former Coal Loader.

Pedestrian routes through the Peninsula should also take up the opportunity to provide a physical and conceptual link between the known Aboriginal sites in Waverton Park, those on Balls Head, the engraving site and the midden/shelter sites on the Caltex site.

13.4.2 The BP Site

From its upper level the BP site provides a major opportunity for recreation, including dramatic panoramic views of the Harbour and City skyline.

The BP site should be a focus for communication of the notion of layered history and change over time. The lower, southern precinct, and particularly the recycled sandstone in the bund wall in the vicinity of the former Berry Wharf and store, provides an opportunity to tell visitors about nineteenth-century history.

Contemporary elements such as the sculptural form of the tank cuttings and high level retaining wall provide a background to presenting more recent evolution and industrial activity. An important theme here is the concept of change which, in conjunction with the robust nature of the features themselves, provides opportunities for substantial adaptation.

Continuation of the working waterfront will ensure that the site is perceived as a living environment. Public access to the area should be permitted subject to safety considerations.

13.4.3 The Caltex Site

The primary interpretive focus of the Caltex site is as a link between the public and residential areas of the Waverton Peninsula to the south and the Coal Loader site to the north.

There is also an opportunity to interpret natural environmental issues including plant colonisation and bush regeneration as people move through the site.

13.4.4 The Coal Loader Site

Interpretation on the Coal Loader site should use the massive scale of the Coal Loader platform and wharf to communicate the importance of twentieth century maritime industry and technology.

Visitors to the site should be informed about the operation of the Coal Loader itself and the industrial technologies employed.

The scale of the site and the areas provided by the platform (and potentially the wharf) provide major recreational and amenity opportunities but also an important chance to illustrate more recent achievements regarding the site's conservation and return to the public domain.

The existing buildings on the Coal Loader site, which are currently leased for other purposes, have long-term potential for development as an interpretive centre, possibly including interpretation of Aboriginal heritage, in association with the nearby engravings.

13.5 Devices and Elements

Interpretation of the history and significance of the Waverton industrial sites should include the following devices and elements:

- historic fabric of the BP site:
  - 'BP' sign – this small but prominently located item conveys an instant message of the former corporate ownership of the site;
  - lower (sandstone faced) bund wall – the sandstone blocks are not only a visible and tangible reminder of the earliest phase of industrial development of the Peninsula but also an example of reuse of materials for new purposes;
  - curved cuttings – although the fuel storage tanks have been removed, the cuttings made to contain them reflect the shape and size of the tanks and provide opportunities for a wide range of recreational and interpretive activities;
  - steel Dolphin wharf – although relatively recent in origin, this structure can have an ongoing use for marine-based activities and may provide access to the BP site from the Harbour;

- upper retaining wall – this structure is a highly visible reminder of the industrial history of the site and the way in which the natural landform has been manipulated over time to meet the requirements of the former occupants; and
- concrete foundations and remnant plant – although much of the industrial equipment and infrastructure has been removed, the remaining elements such as steps, footings, railings and plant can assist in conveying the story of the site to visitors. They are mostly robust and can be adapted to a range of interpretive and recreational uses.

- Coal Loader site:
  - wharf (or remnant wharf structure) and pump house – these offer major opportunities for interpretation of the coal loading operation. The timber structure has high aesthetic qualities as well as the ability to demonstrate a particular technology. However, its poor condition and consequent public safety concerns may preclude its long-term conservation and possible reuse for recreation as a viewing or fishing platform;
  - Coal Loader platform, including tunnels – the platform is a large open space with considerable potential for community uses, including markets, fairs and heritage activities. The tunnels are interesting spaces with interpretive potential but they support a population of bats. Future use of the tunnels will depend on the outcome of a fauna study. Some of the coal chutes could be reopened and converted to light wells to illuminate one or more of the tunnels. Provided safety and conservation issues can be satisfactorily addressed, the public should have access to one or more of the tunnels, particularly that containing remnant coal skips and track. A possible interpretive program would be to have visitors walk south through one tunnel and return via another;
  - Site of former oil storage tank – this has been landscaped as a 'mini wetland' and supprts populations of frogs. Future use will depend on the outcome of a fauna study.
  - operating relics – if one of the remaining coal skips could be made to operate again within the tunnel, the public would be able to obtain a better appreciation of the operation of the coal loader. The tunnels may also be an appropriate point at which to use an audio presentation of the oral history of the site, including commentaries by former employees, sounds of the coal loader in operation, etc; and
  - historic buildings – the ancillary buildings have been adapted for new uses but there is potential to interpret their previous uses by signs or other means.
- a walking track, incorporating associated brochures and signage (so as to be self-guided), linking Waverton Park, the BP site and Balls Head along the eastern side of the Peninsula and the Caltex site, Coal Loader site and Balls Head along the western side of the Peninsula;

- a printed brochure, including site plan, historical text and illustrations, in a format suitable for use on the self-guided walk or in visits to individual sites or places on the Peninsula;
- on-site interpretive signs. These should be of a low-key, unobtrusive type which focus on historic images or explanatory graphics, which inform the visitor while deferring to the real elements of the place itself. Signage is particularly important where there is no physical evidence with which to associate the interpretation; for example, at the site of Berry's store, or in relation to Aboriginal sites on the Caltex site. Possible locations of photo-metal interpretive signs are shown on Figures 13.1 and 13.2;
- large-scale robust sculptural elements at the BP site, used to convey:
  - the operating link between the wharves, tanks and upper area; and
  - the scale and location of the tanks themselves.

  These elements may have a dual role as functional parts of the evolving site (eg as walkways or viewing platforms);
- a school program, encompassing an education kit.

The above elements and devices are proposed as the 'core' interpretation program, required to implement the Conservation Management Plan in the context of the Strategic Masterplan. In addition to these 'core' components, consideration may be given to additional elements such as:

- a wider community education program, including lectures, events and guided tours. These may be organised to coincide with significant anniversaries of the industrial history of the Peninsula or events such as Australia Day, Heritage Festival, etc;
- provision (by Council and/or the Metropolitan LALC) of a guide for interested groups. There is no substitute for quality face-to-face interpretation by skilled communicators who understand the heritage of the site, whether it be natural, Aboriginal or non-Aboriginal cultural;
- establishment of a 'Friends' community group, charged with organising community support and similar social events;
- a formal visitor centre established in either an adapted historic building on the Coal Loader site or a new purpose-built structure. The site of the existing office building on the BP site offers spectacular views of Sydney CBD and Harbour. However, its location does not lend itself to development due to traffic, parking and visual impacts. A viewing platform with interpretive material as part of a walking trail may be possible at this site. A potential low-cost visitor centre may be established in the former mess room, at the northeastern end of the coal loader site. This building is well-located at the entrance to the industrial sites and is close to the Aboriginal sites. Accordingly it would be an appropriate point for visitor orientation and starting point for

tours of the sites. It has a corrugated asbestos roof and is partly open on two sides but may lend itself to conversion as an all-weather facility or as a shelter for interpretive signage;

- display of a scale working model of the Coal Loader site, either on-site or in the interpretation centre; and
- provision of a 'virtual reality' computer-based program which conveys the history and industrial operation of the sites, either on-site or associated with school or community education programs.

13.6 Market Identification

To develop an Interpretive Plan for the Waverton Peninsula, North Sydney Council will need to carry out research to identify existing and potential markets and audiences for the heritage sites on the Peninsula. These are likely to include some or all of the following:

- tourists;
- the local community;
- special interest groups; and
- schools and tertiary institutions.

Surveys will be needed to determine the profiles of visitors to existing reserves, historic sites and interpretive trails. Research will be required to assess the relevance of the natural and cultural heritage values of the Peninsula to the school and tertiary institution curricula, so that interpretive programs can be tailored to the needs of school teachers and students.

From these surveys the basic needs of visitors can be assessed. These will include access (including disabled access), toilets, water and information (both directional and interpretive). Educational groups and the general community will have various expectations of the area, including shelter, availability of refreshments, marshalling and briefing areas, resources kits, pre- and post-visit curriculum based activities.

The Waverton Peninsula has the potential to offer visitors a wide range of educational, interpretive and recreational experiences – Aboriginal rock art sites, remnants of indigenous vegetation, a wealth of industrial heritage opportunities and spectacular views of Sydney Harbour and the CBD. At the same time, the Peninsula, by its very nature, imposes several constraints on the realisation of these opportunities. Present public access is restricted to one road (Balls Head Road) from outside the area and availability of parking is limited. While many of the former industrial sites are robust, others are sensitive or in poor condition. Funding for conservation and interpretation is likely to be a major limiting factor for the foreseeable future and Council will need to include provision for adequate interpretation in its budget forecasts.

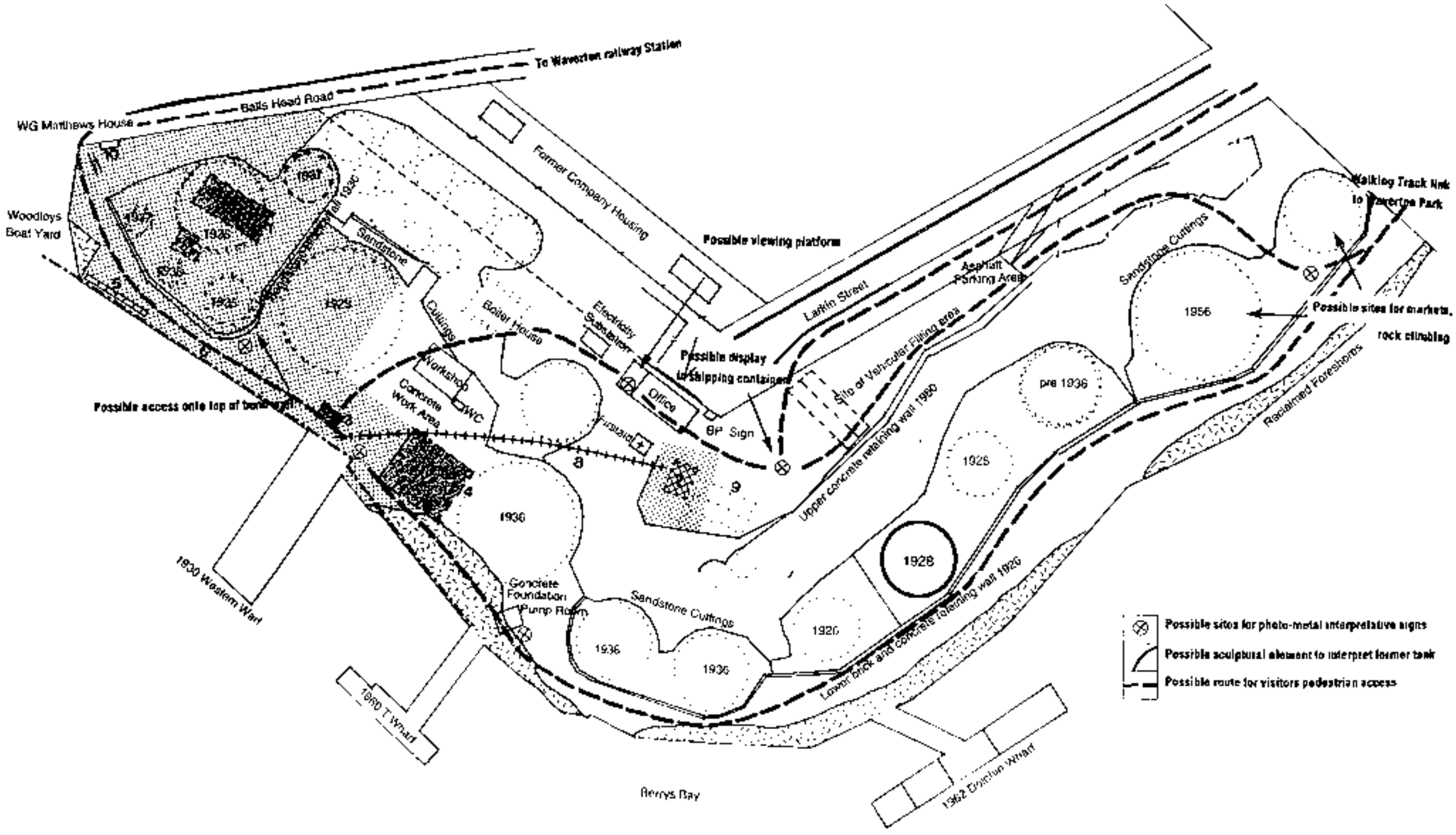


Figure 13.1 BP site – interpretation.

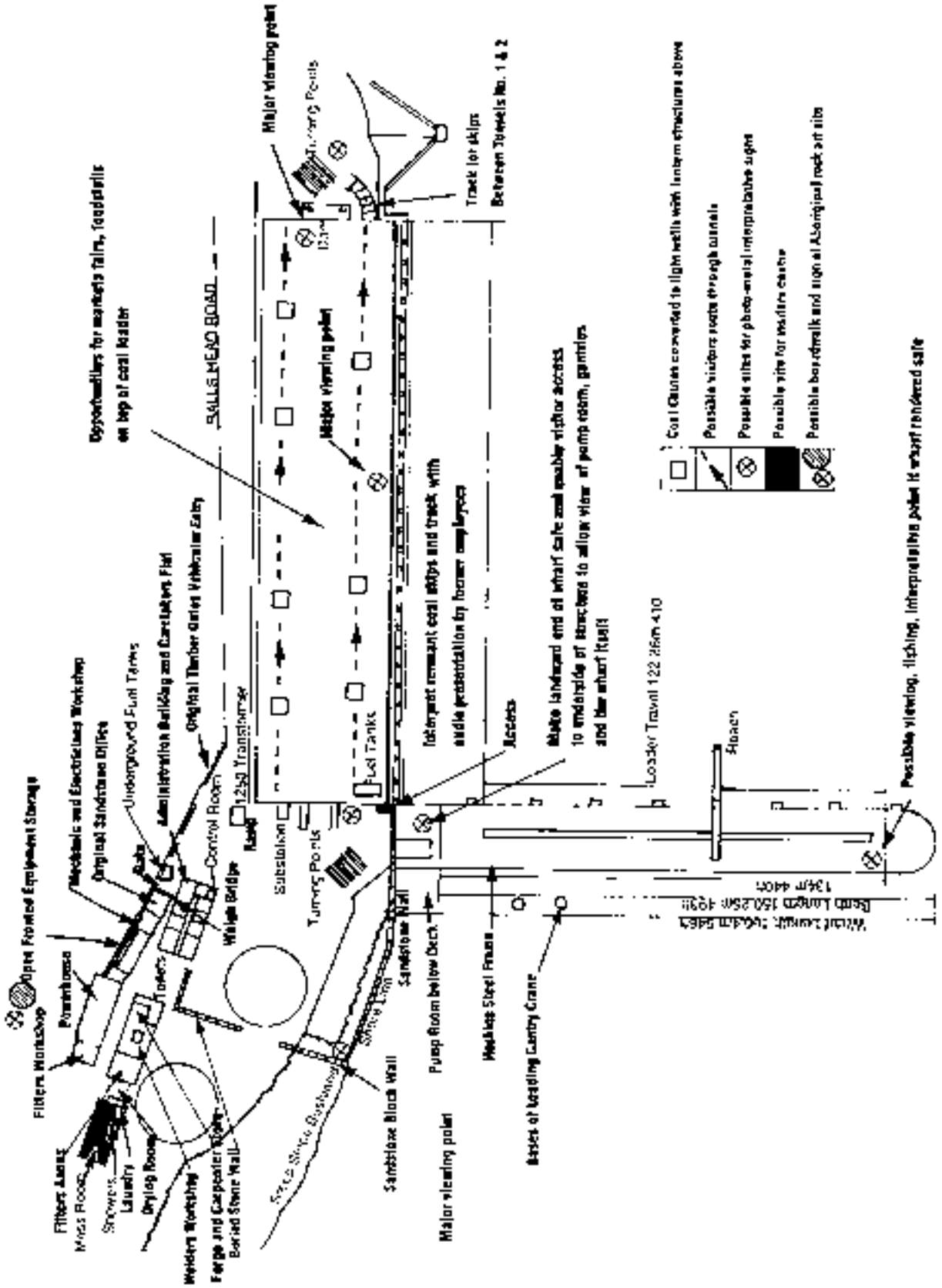


Figure 13.2 The Coal Loader site – interpretation.

Figure 13.3
BP Site office. This building could be demolished and replaced with a public viewing platform affording panoramic views over Sydney Harbour. The self-illuminated BP sign should be retained as a reminder of the site's former corporate occupants.

Figure 13.4
The most recent use of the BP site could be interpreted by the use of one or more shipping containers converted to house an interpretive display.

Figure 13.5
View of Bridge and City from top level of BP site. Handrail painted in BP corporate colours should be retained, at least in part.

Figure 13.6
View from southwest corner of deck at BP office building. A viewing platform at this point would afford panoramic views of the BP site, the quarantine station, Balls Head, the Harbour and Sydney CBD.

Figure 13.7
View from BP office showing 1930 western wharf (right) and c1960? T-shaped wharf (left).

Figure 13.8
View from BP office to city and Bridge showing First Aid Hut which can be demolished.

Figure 13.9
Entry to Coal Loader site from Balls Head Road with access to HMAS Watershed on right. Building left of centre is former Fitters' Workshop and Powerhouse, now converted to offices by lessee.

Figure 13.10
Coal Loader site. Former Mess Room could be adapted as short or long-term Visitor Centre. It is conveniently located at northern end of site, closest to public transport and is close to the Aboriginal rock art site. Corrugated asbestos cement roof would need replacing.

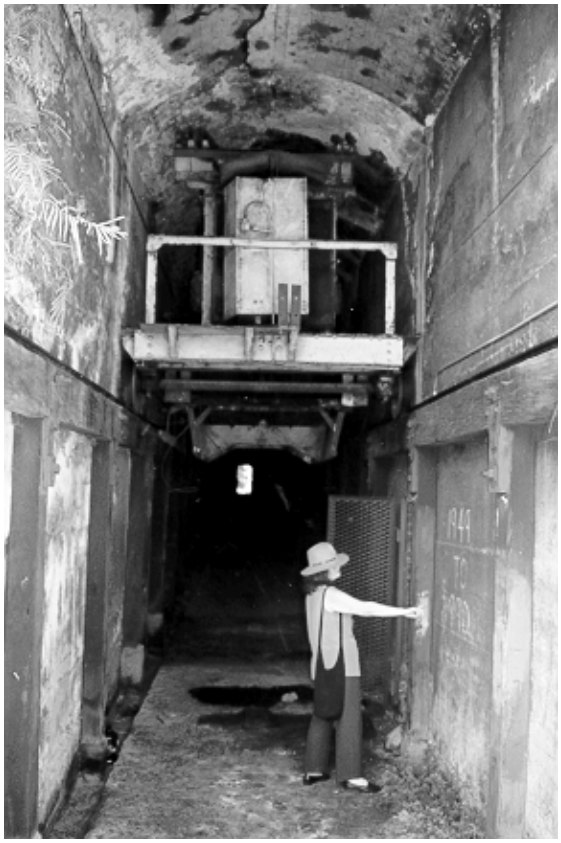


Figure 13.11
Remnant equipment including coal skip and track inside westernmost of four tunnels of Coal Loader. Interpretation here could include audio presentation of Loader operations by former employees.

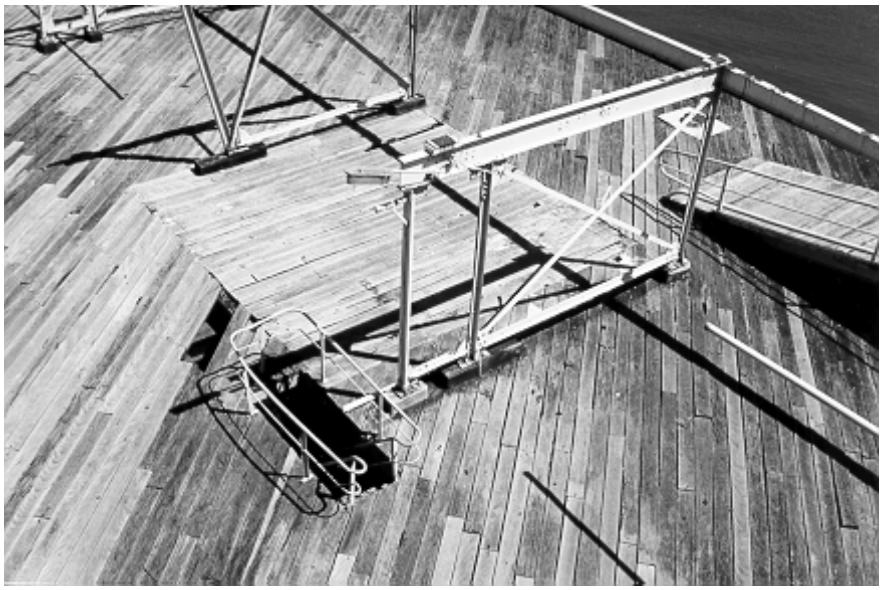


Figure 13.12
Deck of Coal Loader wharf near landward end showing ramp down from shore (right) and access hole to underside of structure. If this part of the wharf can be rendered safe, it would allow visitors to see the majestic supporting structure of the wharf and also the pump room.

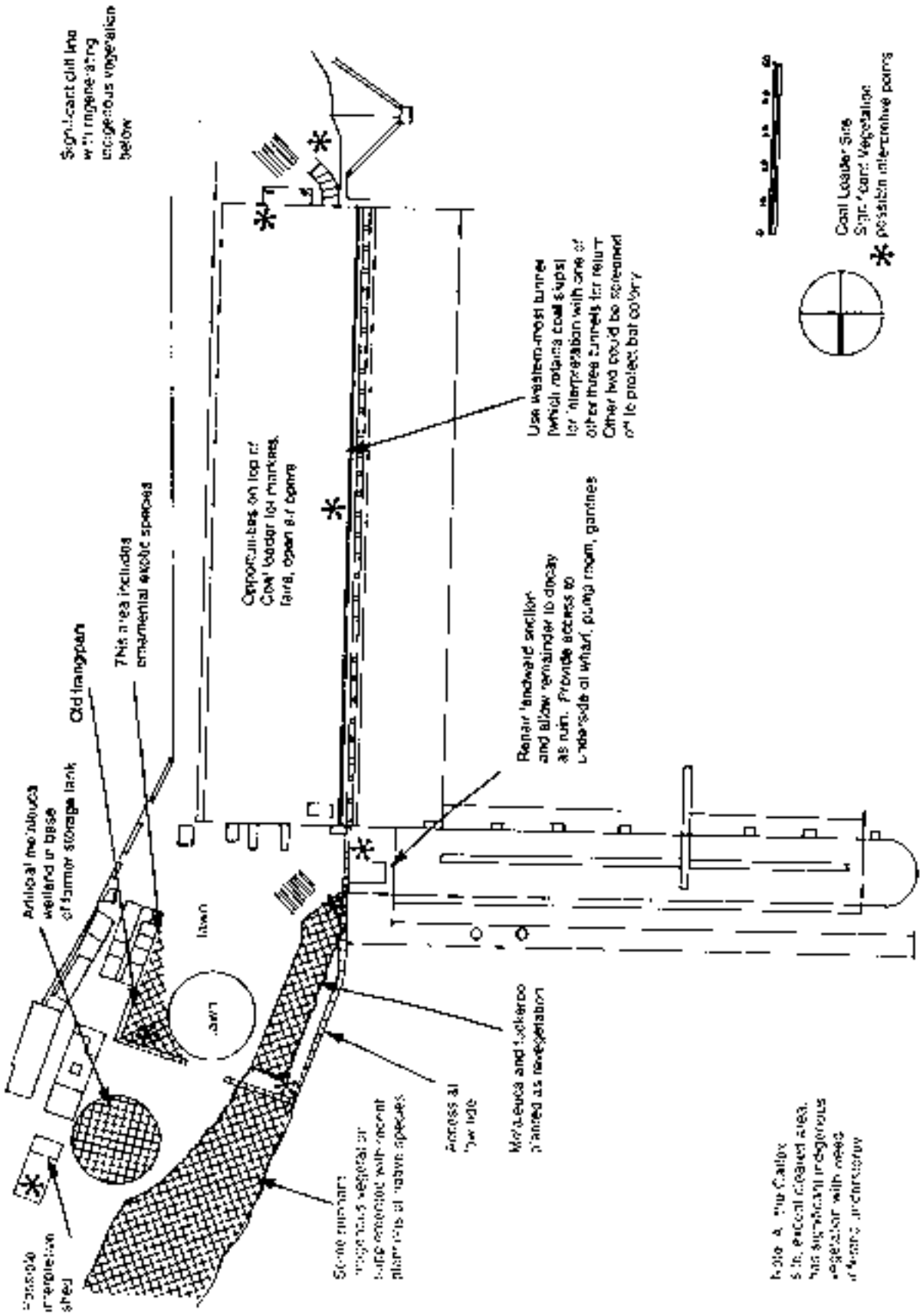


Figure 13.13 The Coal Loader site vegetation.

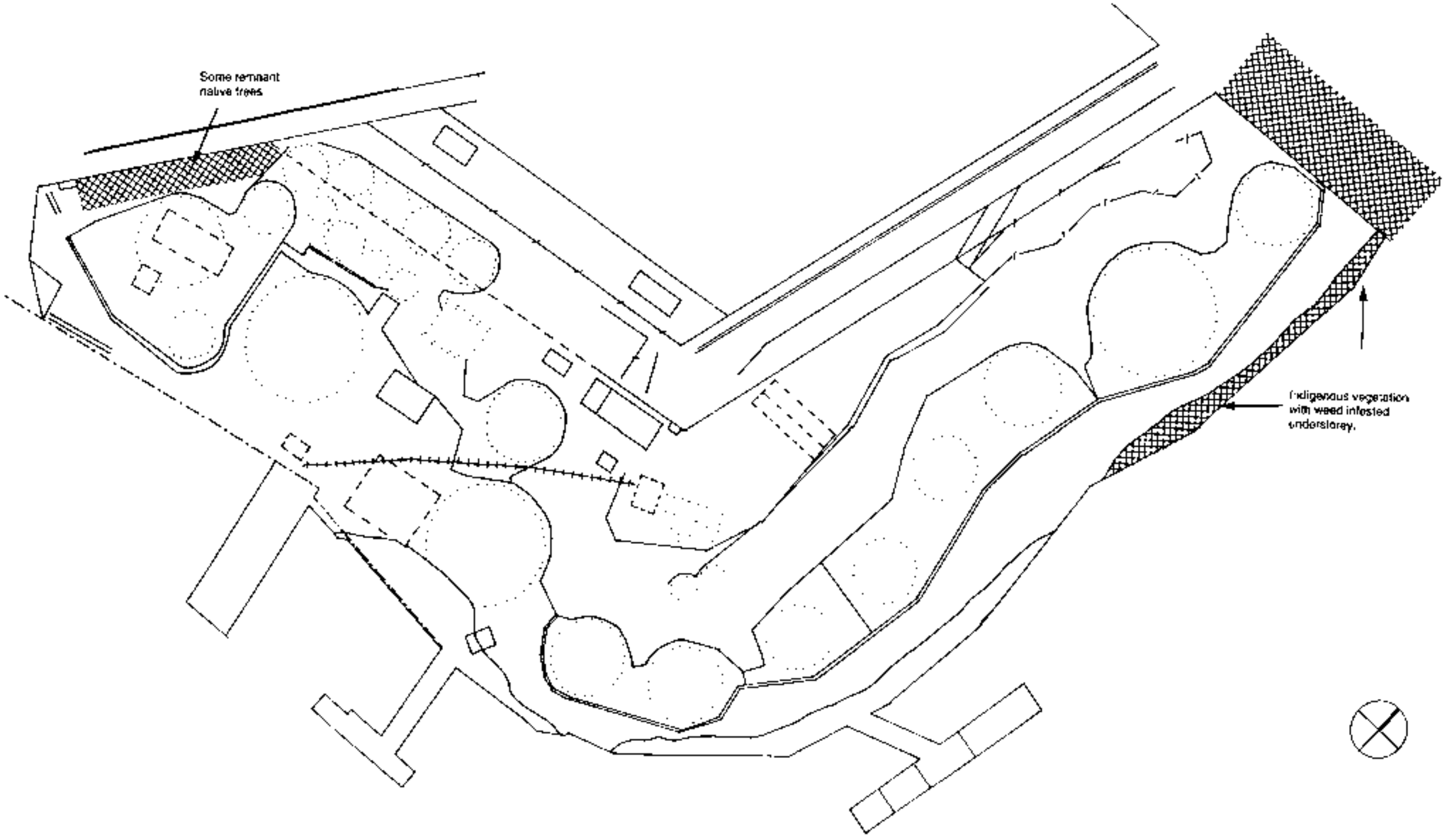


Figure 13.14 BP site – significant vegetation.

14.0 Implementation Strategy

14.1 Preamble

Conservation of the natural and cultural heritage of the three Waverton industrial sites will require a sustained commitment from North Sydney Council and other stakeholders, throughout the detailed planning for the sites, implementation of detailed design and the ensuing operation. The fundamental action required to implement this Conservation Management Plan is that Council adopt the Plan, including Statements of Significance and Conservation Policy, as the basis for management of the sites' heritage values and then utilise the Plan as the detailed design proceeds.

This section of the report sets out a succinct set of key actions required from Council and its staff, in order to achieve this implementation. For ease of reference, the recommended strategy is summarised in Table 14.1. Specific conservation actions recommended in relation to Aboriginal sites are, additionally, covered by stand-alone Table 14.2.

14.2 Adoption

To be effective this Plan must have Council's support, and the status conferred by formal adoption.

Recommendation 1

North Sydney Council should formally adopt this Conservation Management Plan as the basis for conserving and managing the heritage values of the three Waverton Peninsula industrial sites.

14.3 Responsibility

In order to be effectively implemented, this plan requires clear lines of responsibility and accountability within Council's organisation.

Recommendation 2

North Sydney Council should nominate a single officer (by title/position) as responsible for implementing the Conservation Management Plan. That officer should, in turn, allocate each of the Plan's recommendations to a single Council officer, also nominated by title/position.

14.4 Planning

This Conservation Management Plan has been prepared in response to the Strategic Masterplan, prior to commissioning of detailed landscape plan designs. The findings, policies and recommendations of this Conservation Management Plan must be carried forward through the design and implementation process.

Recommendation 3

Following Council adoption, this Conservation Management Plan should guide refinement of the Strategic Masterplan and become an essential component of the brief for detailed landscape design, interpretation and other implementation/management activities for the three Waverton industrial sites.

14.5 Statutory Protection and Compliance

The subject sites require ongoing statutory protection and their management must, in turn, meet relevant statutory requirements and procedures relating to heritage conservation.

Recommendation 4

The BP site and the Caltex site should be included on the heritage schedule of the North Sydney Local Environment Plan.

Recommendation 5

Council should nominate the Coal Loader site to the State Heritage Register, concurrently seeking Heritage Council endorsement of this Conservation Management Plan, as the basis for exempting works at the Coal Loader site, carried out in accordance with the Conservation Management Plan, under Section 57 of the Heritage Act.

Recommendation 6

Council should put in place appropriate protocols and procedures to ensure that any subsurface disturbance at the three industrial sites complies with the archaeological protection and permit requirements of the NSW Heritage Act, and the North Sydney Local Environmental Plan.

Recommendation 7

Council should put in place appropriate protocols and procedures to ensure that any subsurface disturbance at the three industrial sites complies with the Aboriginal relics requirements of the National Parks and Wildlife Service Act, and the North Sydney Local Environmental Plan.

14.6 Initial Cost Plan Investigation

Resolution of both short and long-term strategies for the Coal Loader wharf and BP site upper retaining wall require more detailed and reliable cost estimates than are currently available. Such estimates are needed not only to facilitate informed decisions about the future treatment of these elements, but also as a negotiating tool in discussions with relevant agencies regarding allocation of funds for site conservation which might otherwise have been used for demolition activity.

Recommendation 8

Council should, as a matter of urgency, commission a quantity surveyor and/or civil engineer to prepare a cost plan for both stabilisation and demolition of the Coal Loader wharf and demolition of the upper retaining wall on the BP site, as input to decision-making and short-term negotiations.

14.7 Interpretation Plan

This Conservation Management Plan includes an interpretation policy and interpretation strategy that outlines appropriate themes, messages, devices and elements. While elements of the proposed interpretation can be readily accommodated within the forthcoming detailed landscape design, full implementation of the interpretation policy will require preparation of a detailed interpretative plan, so that proposals can be costed, resourced and implemented.

Recommendation 9

Council should commission a detailed interpretative plan, including specific design proposals and costings, in conjunction with implementation of this Conservation Management Plan and the detailed landscape design plan for the Waverton industrial sites.

14.8 Liaison with Other Agencies

Throughout the planning process for the three industrial sites there has been ongoing and productive liaison with other interested parties, including State Properties Branch, the Sydney Harbour Manager and the Department of Urban Affairs and Planning. Other agencies, such as the NSW Heritage Council and National Parks and Wildlife Service, also have a legitimate ongoing interest in the site. It is therefore desirable to ensure that ongoing liaison occurs and to put in place appropriate mechanisms for periodic review and consultation.

Recommendation 10

Copies of the Conservation Management Plan should be made available to Government agencies represented on the Waverton Peninsula industrial sites stakeholder group, following adoption by Council.

Recommendation 11

Council should establish a consultative committee, including Government agencies represented on the stakeholder group, the NSW Heritage Council, National Parks and Wildlife Service and local community representatives, to advise and assist with ongoing conservation and management of the Waverton Peninsula industrial sites.

14.9 Aboriginal Heritage

The Aboriginal component of the Conservation Management Plan has identified a number of management and conservation requirements, which are set out in detail at Table 13.2. These focus on remedial works and conservation needs, having regard to the increased public use of the area foreshadowed in the Masterplan. The highest priorities relate to minimisation of the impact of any proposed walking tracks on known Aboriginal sites within the study area and within the local context. It is critical that this work is integrated. While interpretation should generally not be undertaken until remediation protection works are completed, the protection works themselves should not proceed without interpretation, if such works might attract undue or inappropriate attention.

Also desirable is the establishment of links between two public open spaces; Waverton Park and Balls Head Reserve. The provision of access along the foreshore, using the industrial sites, provides an important opportunity to link not only the existing public spaces, but also provide an interpretive link between the present and the past.

Recommendation 12

The Aboriginal engraving site adjacent to the Coal Loader site should be physically conserved. Required works include removal of paint, removal of existing fence, re-landscaping, re-routing of the road, and exposure and identification of the full extent of this important feature.

Recommendation 13

The Aboriginal shelter/midden sites within the Caltex site (C1 and C2) should be stabilised through removal of rubbish, removal of coal wash, installation of a clean layer and rehabilitation of slopes and vegetation cover. The on site interpretation of these sites is inappropriate due to their fragility, difficulty of access and the destabilising and detrimental results of facilitating or providing easier access.

Recommendation 14

Associated sites in Waverton Park should be conserved, through removal of litter, exposure and interpretation of engravings and other associated works.

Recommendation 15

The hand axe presently held by Philip Mulvey of Environsciences, is the property of the Crown and should be returned to either the Australian Museum or the Metropolitan LALC. Its use in a secure interpretative display on Aboriginal heritage has been endorsed by the Metropolitan LALC.

14.10 Access

A major achievement of the return of the three industrial sites to the public land is the opportunity created for public access.

Recommendation 16

Public access should be provided to the Waverton Peninsula industrial sites as soon as practicable. This access should include pedestrian links through the sites linking Waverton Park and Balls Head Reserve.

14.11 Vegetation Management

Each of the three industrial sites includes areas of remnant natural vegetation and some weed infestation. In addition, there are significant ornamental gardens within the Coal Loader site. The conservation and management of this vegetation must become part of an ongoing conservation program.

Recommendation 17

Council should instigate appropriate procedures for bush management/regeneration in all three Waverton Peninsula industrial sites, in accordance with Council's existing procedures for other bushland reserves. (See North Sydney Bushland DCP).

Recommendation 18

Intrusive and recently introduced vegetation which obscures key sight lines within the Coal Loader site should be removed.

Recommendation 19

Maintenance procedures and an ongoing maintenance regime should be provided for the significant ornamental garden beds within the Coal Loader site.

14.12 Fabric Conservation

A large part of the conservation action required for the Waverton industrial sites involves retention, preservation and, in some cases, reconstruction of significant historic fabric. In general, the remnant industrial features are robust and require minimal attention other than routine maintenance. However, some elements, such as the former Coal Loader tunnels, wharf and moveable relics, require additional short-term remedial action.

Recommendation 20

Council should establish a maintenance regime for the three industrial sites, including preparation and implementation of a cyclical maintenance manual, in co-operation with or co-ordinated by a steering committee.

Recommendation 21

The Coal Loader platform should be subject to a thorough inspection by an appropriately qualified civil engineer and, where essential for physical conservation, defective elements should be made good through removal and replacement with new fabric of the same type in the same location.

Recommendation 22

Advice should be sought from a suitably qualified materials conservator in relation to the steel Hoskins gantry on the Coal Loader wharf and the moveable relics on the Coal Loader site.

14.13 BP Site Remediation

Following decommissioning, the BP site is in the process of being remediated by BP Australia Ltd. There has been a process of productive interaction between Council, the Conservation Management Plan study team and BP Australia Ltd during the course of this project. The resources available for the remediation are potentially an important contributor to the site's future management and it is therefore desirable that proposals and options for the future of the concrete upper retaining wall be considered in close consultation with BP Australia.

Recommendation 23

Council should enter into discussions with BP Australia regarding the process, content, cost and resource implications of the site remediation, having particular regard to options for the upper level concrete retaining wall and the potential establishment of a Trust fund.

14.14 Records

The Waverton industrial sites are important because of their associational significance, which derives from what is known about them through records, as well as from the physical evidence available on site today. It is therefore important that appropriate records continue to be made, that existing records are appropriately curated and that further research is encouraged.

Recommendation 24

An archival record, consistent with the guidelines published by the NSW Heritage Office, should be made before removal of any significant items at the BP, Caltex or Coal Loader sites.

Recommendation 25

Council, through the Stanton Library, should establish a Waverton Peninsula industrial sites collection, which should include copies of all available historical documentation.

Recommendation 26

Ongoing research into aspects of the history and significance of the Waverton Peninsula industrial sites should be actively encouraged and supported by Council.

14.15 Resourcing

Implementation of the Strategic Masterplan and this Conservation Management Plan will require substantial resources, both in capital establishment costs and ongoing operations and maintenance. While budgetary issues are a matter for Council consideration and decision, the nature of the sites and their high heritage values, together with the physical conservation requirements of the Conservation Policy and imaginative interpretation proposed, may warrant allocation of funding from other sources. In particular, there are subprojects that arise from this Conservation Management Plan that may justify allocation of public funds or attract commercial sponsorship. These projects include, for example, installation of interpretation, establishment of the walking trail, an education kit, investigation of feasible alternatives for the Coal Loader, Aboriginal site stabilisation or design and construction of interpretive sculptures.

Recommendation 27

Council should immediately and regularly investigate opportunities for additional funding through Federal heritage and celebration programs, the NSW Heritage Assistance Program, the NSW Ministry for the Arts, the Arts Council, commercial sponsorship and other similar avenues.

14.16 Indicative Implementation Program

Table 14.1 provides a summary of the recommendations of the Conservation Management Plan, with an indication of both priority and timing for each task.

Relative priority is addressed at three levels:

- high priority tasks are essential in order to conserve the heritage values and implement this Conservation Management Plan;
- medium priority tasks are important elements of the implementation of the Conservation Management Plan which should proceed unless prevented by scarcity of resources or other overriding practical impediments; and

- low priority tasks are desirable in order to implement the Conservation Management Plan but could be considered for deferral (relative to high and medium priority tasks).

The timeframes indicated are indicative and should be adjusted as necessary to suit Council's design development and project planning timeframe and the realities of site availability, access to resources and statutory consent processes.

- short-term tasks should be undertaken in the current financial year;
- medium-term tasks should be undertaken within one year;
- long-term tasks should be undertaken within five years; and
- ongoing tasks should be commenced as soon as practicable and will continue as part of the conservation management of the subject sites.

Table 14.1 Summary Implementation Strategy

Action	Priority	Indicative Timing
Consideration and adoption of Conservation Management Plan by Council.	High	Short-term
Nomination of responsible officers.	High	Short-term
Inclusion of Conservation Management Plan in design brief for landscape plan.	High	Short-term
Addition of BP site and Caltex site to LEP heritage schedule.	High	Medium-term
Nomination of Coal Loader site to State Heritage Register.	Low	Long-term
Establishment of Heritage Act 'relics' procedures.	High	Medium-term
Establishment of NPW Act 'relics' procedures.	High	Medium-term
Cost plan for Coal Loader wharf and BP site retaining wall.	Medium	Short-term
Interpretation plan.	Medium	Short-term
Provision of Conservation Management Plan to Government agencies.	Medium	Short-term
Establishment of Consultative Committee.	Medium	Long-term and ongoing
Physical conservation of Aboriginal engraving site.	High	Medium-term

Action	Priority	Indicative Timing
Physical stabilisation of Aboriginal sites within Caltex site.	High	Medium-term
Physical conservation of Aboriginal sites within Waverton Park.	Medium	Long-term
Establishment of pedestrian access and links through site.	High	Medium-term
Establishment of bush management/regeneration program.	Medium	Long-term
Removal of intrusive vegetation.	Low	Medium-term
Establishment of maintenance program for ornamental garden beds.	Medium	Medium-term
Establishment of maintenance regime and manual for historic fabric.	High	Medium-term
Remedial investigations and repair of Coal Loader fabric.	Medium	Medium-term
Materials conservation advice for Hoskins gantry and moveable relics at Coal Loader site.	High	Medium-term
Liaison and discussions with BP Australia regarding remediation program and costs.	High	Short-term
Archival recording before demolition or removal.	High	Short and Medium-term
Establishment of Waverton Peninsula archival collection.	Low	Long-term
Encouragement of associated research.	Low	Ongoing
Identify funding and resourcing opportunities.	High	Ongoing

Table 14.2 Aboriginal Site Management Requirements and Recommendations

NPWS SITE NUMBER site type	LOCATION	THREATS	IMPACTS	REMEDIATION	INTERPRETATION
45-6-0026 Engraving	Opposite Coal Loader	Visitation	Vandalism Painted grooves	Remove paint	Site as 'Gateway' to Balls Head Reserve sites. Potential for developing Aboriginal archaeological and historical themes across the public space of Waverton eg, Waverton Park, Waverton Peninsula.
		Previous Management	Inappropriate fencing, poor drainage ,	Remove Fence Re-landscape to level and create drainage on western side of site	Engraving Significance
		Road construction and use	Asphalt covering motifs	Re-route road Remove asphalt and grass cover from vicinity	History of site recording and management
		Encroaching vegetation	Grass covering motifs	Aim: to re-expose site and identify full extent	
CL 1 Sheltered Midden [destroyed]	Under Coal Loader residence	Previous industrial development	Sandstone formation excavated for residence and patio footings, steps and adjacent storage tank	Site is effectively destroyed shell material no longer in situ Very poor potential for remediation	Poor interpretative value Shell content – species exploitation Site usage in local context

NPWS SITE NUMBER site type	LOCATION	THREATS	IMPACTS	REMEDIATION	INTERPRETATION
C 2 Sheltered Midden	55m south of Caltex site northern boundary fence	Visitation	Brick fireplace, European rubbish, metal fence paling, roof tiles	Remove rubbish	Not suitable for immediate visitor or public interpretation. Access is difficult. Front of shelter drops away steeply to talus slope and any viewing of the site would involve disturbance to floor deposits
			Shell deposit destabilised, and undercut	Stabilise extant deposit in shelter by installation of clean layer and reducing access	
			Shell spillage down slope	Careful placement of walking tracks [if any] along foreshore	
		Previous Industrial development	Adjacent slopes contain coal wash deposits and other rubbish	Remove coal wash Rehabilitate slopes and vegetation cover	

NPWS SITE NUMBER site type	LOCATION	THREATS	IMPACTS	REMEDIATION	INTERPRETATION
C 1 Sheltered Midden	35m south of northern boundary fence	Visitation Previous Industrial development	Graffiti Sandstone rubble fireplace, European rubbish, plastic, carpet Shell deposit destabilised, shell spillage down slope Adjacent slopes contain coal wash deposits and other rubbish	Remove rubbish Stabilise extant deposit in shelter by installation of clean layer and reducing access Remove coal wash. Rehabilitate slopes and vegetation cover Walking tracks or foreshore access should be limited or clearly defined and maintained to reduce divergence off specified route	Not suitable for immediate visitor or public interpretation. Access is difficult. Front of shelter drops away steeply to talus slope and any viewing of the site would involve disturbance to floor deposits Site may be interpreted indirectly in local context by reference only, access should be restricted. Placement of any adjacent facility or walking track should consider site location and maintain limited access either from above or below
Potential [Low] Midden Deposit	Berry's Store [1830 Stone Store and wharf]	Previous development	Installation of fill, footings, wharf, etc along foreshore	Consideration of possible Aboriginal remains in any proposed excavation of area.	Low potential for buried remains of midden deposit

NPWS SITE NUMBER site type	LOCATION	THREATS	IMPACTS	REMEDIATION	INTERPRETATION
Adjacent sites					
45-6-2147 Sheltered Midden	Western side of Waverton Park [north of BP site]	Visitation Adjacent established path through Park	Litter	Remove litter Installation of clean layer to cover existing deposit	Site could be interpreted as part of local context and possibly incorporated into walking track as may be proposed around foreshore through BP site The site has excellent potential for subsurface deposit
Potential Engraving platform	Western side of Waverton Park below Larkin Street	Rock platforms covered by grass	Possible covering of engraving sites	Deliberate removal of turf to expose rock surfaces **or** Notification of Archaeological sensitivity in existing Waverton Park Management Plan [?]	
Balls Head Reserve sites	Suite of sites within Reserve				Plan of Management for Reserve [?] needs to consider adjacent sites in terms of any proposed connecting walking paths or interpretation walks.

15.0 References

Reports – Chronological

North Sydney Foreshore Open Space Study, prepared for North Sydney Council by The Rice Daubney Group, September 1991.

Rezoning of Land at Berrys Bay, Heritage Report, prepared for Scott Carver Pty Ltd by Godden Mackay Logan, January 1992.

David Berry Hospital Trust Preliminary Decontamination Study Final Report, prepared by AGC Woodward Clyde, February 1992.

David Berry Hospital Trust Decontamination Study Stage 2 – Soil Testing, prepared by AGC Woodward Clyde, February 1992.

Site Options Document Balls Head Coal Loader Site, Waverton NSW, prepared by The EJE Group in association with Peter Fenwick, June 1993.

Planning Study Crown Land Berrys Bay, prepared for NSW Property Services Group by Scott Carver Pty Ltd, September 1993.

Heritage Assessment of the Unloading Gantry Crane and Wharf at the Balls Head Coal Handling Facility, prepared by EJE Enviroplan in association with Peter Fenwick, 1993.

Heritage Assessment of the Outloading System of the the Balls Head Coal Handling Facility, prepared by EJE Enviroplan in association with Peter Fenwick, 1993.

Balls Head Coal Loading Facility at Waverton, Sydney – Report on Existing Coal Loader Platform with Regard to Re-Usage as Public Open Space, prepared for North Sydney Council by Gutteridge Haskins and Davey Pty Ltd, November 1994.

Foreshore Parks and Reserves Plan of Management, September 1995.

North Sydney Recreational Needs Study, prepared for North Sydney Council by Hassell, May 1997.

POW Project 1995 Destitute Children's Asylum Cemetery Archaeological Investigation, Vol 2 Archaeology, Part 3 Aboriginal Archaeology, Godden Mackay and Austral Archaeology, 1997.

Waverton Peninsula Strategic Masterplan, Volume 1 and Volume 2, prepared for North Sydney Council by CLOUSTON Landscape Architects, Urban Designers, Landscape Planners, March 1999.

Draft Remedial Action Plan Former BP Berrys Bay Terminal, prepared for BP Australia Limited by IT Environmental (Australia) Pty Ltd, May 1999.

North Sydney Council Heritage and Cultural Resources Study, Volume 1, prepared by Australia Street Company with Paul Davies Architects Spackman and Mossop, July 1999.

Published Material

'Balls Head Unique Old Coal Loading Cable Scrapped for Modern Mechanism', *North Shore Historical Society Journal*, October 1976.

Jones, M 1988, *North Sydney 1788–1988*, Allen and Unwin, Sydney.

Mann, JF 1885, *Proceedings of the Geographic Society of Australia [NSW and Vic Branches] for 1883–84*.

McCarthy, FD 1983, *Catalogue of the Rock of the Sydney – Hawkesbury District NSW*, 2 Vols, National Parks and Wildlife Service.

McDonald, J 1992, *The Archaeology of the Angophora Reserve Rock Shelter*, Environmental Heritage Monograph Series No. 1, NSW NPWS.

Miles, D 1964, 'Preliminary Comments on Balls Head archaeological excavation'*, Australian Natural History 14*.

Petroleum Information Bureau, 1960, *This Age of Oil: A history of Petroleum in Australia*.

'Ports of the Commonwealth: Coal Bunkering at Sydney'*, Land, Transport and Sea Trade: A Journal of Progress for the War Period and after*, Vol 2, No. 20, January, 1919.

Roderick, C (ed), *Henry Lawson: Collected Verse, Vol 3, 1910-22*.

Ross, Anne 1988, 'Tribal and Linguistic boundaries: A reassessment of the evidence', in G Aplin (ed) *A Difficult Infant: Sydney Before Macquarie*, NSW University Press.

Russell, E 1990, *The Opposite Shore: North Sydney and its People*, North Shore Historical Society.

Skidmore, JA, 1994, 'Mineral Oil in NSW: A Thematic Study from the Founding of the Colony to the end of WW II'.

Sparks, C 1998, 'The BP Site at Berrys Bay', *North Shore Historical Society Journal*, Vol 38.

Sparks, C 1999, 'William George Mathews', *North Shore Historical Society Journal*, Vol 39.

Stephensen, PR and Kennedy, B, *The History and Description of Sydney Harbour*.

Sydney Mail.

The Accelerator, 1 July 1936.

Unpublished Material

Attenbrow, V 1988, 'Research into the Aboriginal Occupation of the Hunters Hill Municipality'.

Attenbrow, V 1990, *The Port Jackson Archaeological Project: Report on Stage 1*, unpublished report to AIATSIS and LALCs.

Attenbrow, VJ 1987, *The Upper Mangrove Creek Catchment: A study of quantitative changes in the archaeological record*, unpublished PhD thesis, University of Sydney.

Bowdler, S 1971, "Balls Head: The Excavation of a Port Jackson Rock Shelter', *Records of the Australian Museum*, 28: 117–128.

Campbell, WD 1899, *Aboriginal Carvings of Port Jackson and Broken Bay*, Mem of the Geological Survey of NSW.

Martin, Megan, *Ryde: Aboriginal Occupation*, an unpublished manuscript.

McCarthy, K., December 1975, 'The Balls Head Coal Loader', article in Balls Head Vertical File, Stanton Library.

McDonald , J 1994, *Dreamtime Superhighway: An Analysis of Sydney Basin Rock Art and Prehistoric information Exchange*, PhD thesis, Australian National University, 2 Vols.

National Parks & Wildlife Service Register of Aboriginal Sites and Catalogue of Archaeological Reports.

Ross, Anne 1976, *Inter-Tribal Contacts – What the First Fleet Saw,* BA Honours thesis, University of Sydney.

16.0 Inventory

16.1 Aboriginal Heritage

The sites located during the survey of the BP, Caltex and Coal Loader sites have been recorded on NPWS Standard Site Recording Forms and forwarded to the NPWS for registration on the NPWS Register of Aboriginal Sites. They have also been recorded on the North Sydney Council Aboriginal Site Database Forms.

16.2 Historic Heritage

The significance of historic elements of the BP, Caltex and Coal Loader sites have been identified and recorded in the North Sydney Council's database. A list of these sites follows.

16.2.1 BP Site Inventory

1. Archaeological zones associated with:
    a) Berry's sandstone block wharf, c1830, 64 feet long by 29 feet wide, including a crane, which replaced a timber wharf built for Wollstonecraft.
    b) c1820s wharf – Berry/Wollstonecraft.
    c) Berry/Wollstonecraft occupation c1829 to c1873 including:
        i) 1834 stone warehouse (stones now used in bund wall);
        ii) 1834 stone cottage lived in by WG Mathews until c1854 when he moved adjacent to the west of the current BP site;
        iii) two wells associated with warehouse and cottage; and
        iv) stables
    d) Coal store for General Screw Steam Company 1853, and the Peninsular and Oriental Company.
    e) AB Black storage of ballast.
    f) 1872 distillery for the Rag and Famish.
    g) 1877 to 1889 NSW Torpedo Corps occupation resulting in the use of the name Torpedo Bay for 30 years around 1900 including:
        i) use of the stone warehouse as munitions storage;
        ii) compound including workshops, office, hydraulic testing house surrounded by a paling fence; and
        iii) blacksmith on wharf edge c1880.

Commonwealth Oil Refinery occupation commencing with The Anglo-Persian Oil Company which became wholly owned by BP in 1961, including:

2. Coursed sandstone block bund wall built in 1936 using the sandstone blocks of the former warehouse built by convict labour for Alexander Berry in 1834. The stone store was four floors, 60 feet long by 26 feet wide with walls 3 feet thick. Some of the stones have margins and are said to be marked with the number of the convict that cut them. No numbers were found on the exterior face, and the interior face has been lined with concrete.
3. Rocky outcrop known as 'Gibraltar' on which large neon initials 'COR' were displayed from the 1930s facing the Harbour demonstrating the site's focus on water access. Many of the industrial sites along the Harbour foreshore and Parramatta River had gigantic lettering facing the waterway at the time. There was also a funicular tramway which carried 4 gallon drums of kerosene to a store house on 'Gibraltar'. Early photographs indicate that the tramway may have run in a direct line from the western wide timber wharf to the store. The stone cutting, now steps, between the administration building and first aid shed, may be remnant evidence of the tramway. No details of the tramway have been found, but it is likely to have been similar to the system employed in coal mine inclines.
4. Rock cuttings and natural rock escarpments to accommodate tanks.
5. Drill bit wedged in rock wall.
6. Mortises in rock walls associated with the network of pipes that were a key element of the site.
7. Encircling drainage canals and concrete footings, for metal fuel storage tanks.
8. Sandstone block footings for tank.
9. Pump room footings x 2.
10. Brick retaining walls, including eastern lower terrace, brick and concrete retaining wall and remnant brick wall wedged into natural rock face.
11. Upper terraces formed to accommodate storage tanks on western part of the site.
12. Upper concrete retaining wall, to provide for large fuel tankers adjacent to Larkin Street and administration building.
13. Site of c1930s building (store) adjacent to east of present administration building on 'Gibraltar'.
14. Electrical substation enclosure.
15. Timber T-wharf built c1960s in vicinity of earlier timber wharf.
16. Concrete retaining walls, steel and timber walkways adjacent to water.
17. Western wide timber wharf (dates to the 1930s).

18. Concrete seawall and loose sandstone and brick block sea wall. Sandstone may be from Berry store wharf.
19. Steel Dolphin wharf 1962.
20. Elevated steel walkways and concrete paths between administration block and waterfront area.
21. Concrete steps recessed into natural stone, between administration and first aid building. (The stone cutting may date to 1930s funicular tramway.)
22. Concrete drainage channels, retention structures, weirs, baffles and associated remnant pipe work and valves.
23. Concrete plinths and steel bolts, used for supporting equipment.
24. Possible site of funicular tramway to Gibraltar storehouse.
25. Building foundations, southwestern corner of the site.
26. Brick administration building – upper level.
27. BP sign, Larkin Street.
28. Brick first aid building – upper level.
29. Brick workshop at waterfront.
30. Brick WC at waterfront.
31. Concrete work area for waterfront.

16.2.2 Caltex Site Inventory

1. 1960s office, HC Sleigh.
2. Sites of two fuel tanks.
3. Track to Coal and Allied site.

16.2.3 Coal and Allied Coal Loader Site Inventory

1. Sandstone Coal Loader Platform.
2. Recessed hoppers and corresponding numbers.
3. Gantry crane base tracks.
4. Ramp from Balls Head Gate.
5. Lower walkway and mooring dolphins.
6. Reclaim tunnels and western cells.
7. Timber support posts & steel rails for travelling feeder tunnel No. 1.

8. Mead Morrison travelling feeder tunnel No. 1.
9. Mead Morrison bin gates.
10. Mead Morrison timber and steel coal skip No. 6.
11. Remnant sleepers for coal skip track, south of tunnel No. 1.
12. 1976 geared bin gates tunnels Nos 2 and 3.
13. Bund wall, conveyor turning ares, south of tunnels Nos 2 and 3.
14. Concrete equipment platform north of tunnels Nos 2 and 3.
15. High level industrial wharf, timber deck, timber piles and 1976 steel reinforcement.
16. Hoskins steel outloader frame for original rope-hauled skips.
17. Bases of outloader gantry support rails.
18. Pump room and pump equipment below wharf.
19. Sandstone retaining wall from Coal Loader platform, northwards.
20. Sandstone retaining wall east-west.
21. Sandstone boundary wall, Balls Head Road, including pedestrian gateway and vehicular timber gates.
22. Sandstone retaining wall and sea wall.
23. Stone wall said to be buried in grass slope between the administration building and workshop/WC.
24. Sites of two bunker fuel tanks with remnant steel ladder for northern tank.
25. Original sandstone office.
26. Brick administration building.
27. Workshop/forge/store/WC.
28. Brick powerhouse.
29. Mess room and site of laundry.
30. Open store.
31. Mechanic's shop

17.0 Appendices

Appendix A

The *Burra Charter* (The Australia ICOMOS Charter for Places of Cultural Significance)

Appendix B

Condition Report: Patterson Britton & Partners Pty Ltd

Appendix A

The *Burra Charter* (The Australia ICOMOS Charter for Places of Cultural Significance)

The Burra Charter

(The Australia ICOMOS Charter for Places of Cultural Significance)

Preamble

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988 and 26 November 1999.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Conservation is an integral part of the management of places of cultural significance and is an ongoing responsibility.

Who is the Charter for?

The Charter sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and custodians.

Using the Charter

The Charter should be read as a whole. Many articles are interdependent. Articles in the Conservation Principles section are often further developed in the Conservation Processes and Conservation Practice sections. Headings have been included for ease of reading but do not form part of the Charter.

The Charter is self-contained, but aspects of its use and application are further explained in the following Australia ICOMOS documents:

- Guidelines to the Burra Charter: Cultural Significance;
- Guidelines to the Burra Charter: Conservation Policy;
- Guidelines to the Burra Charter: Procedures for Undertaking Studies and Reports;
- Code on the Ethics of Coexistence in Conserving Significant Places.

What places does the Charter apply to?

The Charter can be applied to all types of places of cultural significance including natural, indigenous and historic places with cultural values.

The standards of other organisations may also be relevant. These include the Australian Natural Heritage Charter and the Draft Guidelines for the Protection, Management and Use of Aboriginal and Torres Strait Islander Cultural Heritage Places.

Why conserve?

Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important as tangible expressions of Australian identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the Australian landscape. They are irreplaceable and precious.

These places of cultural significance must be conserved for present and future generations.

The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.

Articles

Article 1. Definitions

For the purposes of this Charter:

1.1 *Place* means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

Explanatory Notes

The concept of place should be broadly interpreted. The elements described in Article 1.1 may include memorials, trees, gardens, parks, places of historical events, urban areas, towns, industrial places, archaeological sites and spiritual and religious places.

1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Places may have a range of values for different individuals or groups.

The term cultural significance is synonymous with heritage significance and cultural heritage value.

Cultural significance may change as a result of the continuing history of the place.

Understanding of cultural significance may change as a result of new information.

1.3 *Fabric* means all the physical material of the *place* including components, fixtures, contents, and objects.

Fabric includes building interiors and sub-surface remains, as well as excavated material.

Fabric may define spaces and these may be important elements of the significance of the place.

1.4 *Conservation* means all the processes of looking after a *place* so as to retain its *cultural significance*.

1.5 *Maintenance* means the continuous protective care of the *fabric* and *setting* of a *place*, and is to be distinguished from repair. Repair involves *restoration* or *reconstruction*.

The distinctions referred to, for example in relation to roof gutters, are:

- maintenance — regular inspection and cleaning of gutters;
- repair involving restoration — returning of dislodged gutters;
- repair involving reconstruction — replacing decayed gutters.

1.6 *Preservation* means maintaining the *fabric* of a *place* in its existing state and retarding deterioration.

It is recognised that all places and their components change over time at varying rates.

1.7 *Restoration* means returning the existing *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material into the *fabric*.

New material may include recycled material salvaged from other places. This should not be to the detriment of any place of cultural significance.

1.9 *Adaptation* means modifying a *place* to suit the existing *use* or a proposed use.

1.10 *Use* means the functions of a place, as well as the activities and practices that may occur at the place.

1.11 *Compatible use* means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

1.12 *Setting* means the area around a *place*, which may include the visual catchment.

1.13 *Related place* means a *place* that contributes to the *cultural significance* of another place.

1.14 *Related object* means an object that contributes to the *cultural significance* of a *place* but is not at the place.

1.15 *Associations* mean the special connections that exist between people and a *place*.

Associations may include social or spiritual values and cultural responsibilities for a place.

1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses.

Meanings generally relate to intangible aspects such as symbolic qualities and memories.

1.17 *Interpretation* means all the ways of presenting the *cultural significance* of a *place*.

Interpretation may be a combination of the treatment of the fabric (e.g. maintenance, restoration, reconstruction); the use of and activities at the place; and the use of introduced explanatory material.

Conservation Principles

Article 2. Conservation and management

2.1 *Places* of *cultural significance* should be conserved.

2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.

2.3 *Conservation* is an integral part of good management of *places* of *cultural significance*.

2.4 *Places* of *cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

3.1 *Conservation* is based on a respect for the existing *fabric*, *use*, *associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.

The traces of additions, alterations and earlier treatments to the fabric of a place are evidence of its history and uses which may be part of its significance. Conservation action should assist and not impede their understanding.

3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

Article 4. Knowledge, skills and techniques

4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.

4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

The use of modern materials and techniques must be supported by firm scientific evidence or by a body of experience.

Article 5. Values

5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.

Conservation of places with natural significance is explained in the Australian Natural Heritage Charter. This Charter defines natural significance to mean the importance of ecosystems, biological diversity and geodiversity for their existence value, or for present or future generations in terms of their scientific, social, aesthetic and life-support value.

5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a place.

A cautious approach is needed, as understanding of cultural significance may change. This article should not be used to justify actions which do not retain cultural significance.

Article 6. Burra Charter Process

6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy.

The Burra Charter process, or sequence of investigations, decisions and actions, is illustrated in the accompanying flowchart.

6.2 The policy for managing a *place* must be based on an understanding of its *cultural significance*.

6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

Article 7. Use

7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.

7.2 A *place* should have a *compatible use*.

The policy should identify a use or combination of uses or constraints on uses that retain the cultural significance of the place. New use of a place should involve minimal change, to significant fabric and use; should respect associations and meanings; and where appropriate should provide for continuation of practices which contribute to the cultural significance of the place.

Article 8. Setting

Conservation requires the retention of an appropriate visual *setting* and other relationships that contribute to the *cultural significance* of the *place*.

Aspects of the visual setting may include use, siting, bulk, form, scale, character, colour, texture and materials.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Other relationships, such as historical connections, may contribute to interpretation, appreciation, enjoyment or experience of the place.

Article 9. Location

9.1 The physical location of a *place* is part of its *cultural significance.* A building, work or other component of a place should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

9.2 Some buildings, works or other components of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other components do not have significant links with their present location, removal may be appropriate.

9.3 If any building, work or other component is moved, it should be moved to an appropriate location and given an appropriate *use*. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, interpretation and management of a *place* should provide for the participation of people for whom the place has special *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should be recognised, respected and encouraged, especially in cases where they conflict.

For some places, conflicting cultural values may affect policy development and management decisions. In this article, the term cultural values refers to those beliefs which are important to a cultural group, including but not limited to political, religious, spiritual and moral beliefs. This is broader than values associated with cultural significance.

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance, preservation*, *restoration*, *reconstruction, adaptation* and *interpretation*; and will commonly include a combination of more than one of these.

There may be circumstances where no action is required to achieve conservation.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

When change is being considered, a range of options should be explored to seek the option which minimises the reduction of cultural significance.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

Reversible changes should be considered temporary. Non-reversible change should only be used as a last resort and should not prevent future conservation action.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation* and should be undertaken where *fabric* is of *cultural significance* and its *maintenance* is necessary to retain that *cultural significance*.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance,* or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Preservation protects fabric without obscuring the evidence of its construction and use. The process should always be applied:

- where the evidence of the fabric is of such significance that it should not be altered;
- where insufficient investigation has been carried out to permit policy decisions to be taken in accord with Articles 26 to 28.

New work (e.g. stabilisation) may be carried out in association with preservation when its purpose is the physical protection of the fabric and when it is consistent with Article 22.

Article 18. Restoration and reconstruction

Restoration and *reconstruction* should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In rare cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

Adaptation may involve the introduction of new services, or a new use, or changes to safeguard the place.

21.2 *Adaptation* should involve minimal change to significant fabric, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions to the *place* may be acceptable where it does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

New work may be sympathetic if its siting, bulk, form, scale, character, colour, texture and material are similar to the existing fabric, but imitation should be avoided.

22.2 New work should be readily identifiable as such.

Article 23. Conserving use

Continuing, modifying or reinstating a significant *use* may be appropriate and preferred forms of *conservation*.

These may require changes to significant *fabric* but they should be minimised. In some cases, continuing a significant use or practice may involve substantial new work.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

For many places associations will be linked to use.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and enjoyment, and be culturally appropriate.

Conservation Practice

Article 26. Applying the Burra Charter process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

The results of studies should be up to date, regularly reviewed and revised as necessary.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

Statements of significance and policy should be kept up to date by regular review and revision as necessary. The management plan may deal with other matters related to the management of the place.

26.3 Groups and individuals with *associations* with a *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

Article 27. Managing change

27.1 The impact of proposed changes on the *cultural significance* of a *place* should be analysed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes following analysis to better retain cultural significance.

27.2 Existing *fabric, use, associations* and *meanings* should be adequately recorded before any changes are made to the *place*.

Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility for decisions

The organisations and individuals responsible for management decisions should be named and specific responsibility taken for each such decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Documenting evidence and decisions

A log of new evidence and additional decisions should be kept.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

Article 34. Resources

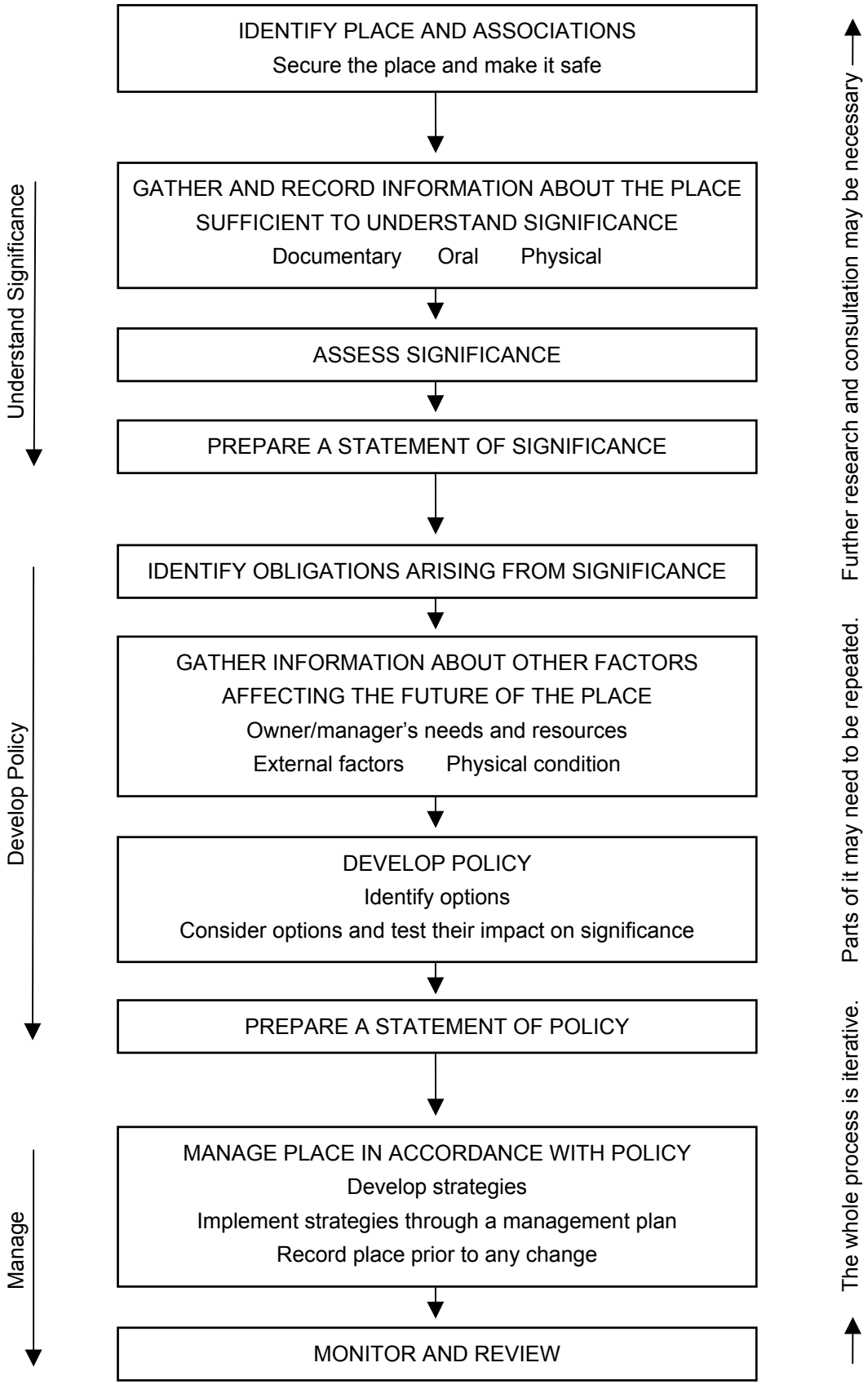
Adequate resources should be provided for *conservation*.

The best conservation often involves the least work and can be inexpensive.

Words in italics are defined in Article 1.

The Burra Charter Process

Sequence of investigations, decisions and actions



Appendix B

Condition Report: Patterson Britton & Partners Pty Ltd

level 2
104 Mount Street
North Sydney 2060

PO Box 515
North Sydney 2059
Australia

telephone (02) 9957 1619
facsimile (02) 9957 1291
Email: reception@patbrit.com.au
ACN 003 220 228

Patterson Britton
& Partners Pty Ltd

consulting engineers

Godden Mackay and Logan
78 George Street
REDFERN NSW 2016

PRC/prc/3614/LK585a

22 December, 1999

Attention: Ms Shalendra Ranasinghe

Dear Madam

WAVERTON PENINSULA CONSERVATION MANAGEMENT PLAN
- CONDITION REPORT OF WHARVES

Patterson Britton & Partners has been engaged to provide a condition report for the three wharves located on the Waverton Peninsula. The condition report is to also include management recommendations and consider adaptive re-use and conservation options.

We are pleased to provide herein our report.

1 CONDITION REPORT

Inspections of the three wharves were undertaken from a boat and comprised visual examination from a distance. This level of inspection is considered adequate in terms of establishing approximate condition. To confirm the precise condition of timbers, more invasive inspection techniques would need to be undertaken. Inspection findings are set out below.

1.1 Coal Loader Wharf

The coal loader wharf consists of two integrated structures: a closely spaced timber structure and a more largely spaced steel framed structure. The timber structure appears to be the original construction and was built perhaps 50 or more years ago. The steel framed structure was installed about 25 years ago to provide support for a number of berthing dolphins used to cater for small coal ships.

The timber structure of the Coal Loader Wharf is in extremely poor condition. A large majority of the timber piles have been severely necked in the tidal zone as a result of marine borer attack. Deterioration is so advanced that localised sections of the sub-structure have dropped away from the deck girders and fallen into the sea. At these locations where sub-structure collapse has occurred, the steel framed structure is preventing sections of the timber deck from falling into the sea. The vast majority of the timber piles will require remedial work if the structure is to be made safe. The underside of the timber deck appeared to be in fair to poor condition. It is expected that closer inspection of the timber deck, particularly the top surface of girders and

headstocks, will find the deck to be in poor condition. Given the poor condition of the timber structure, it is expected that partial collapse from self-weight alone will continue.

The steel framed structure appears to be in fair to good condition throughout but is undergoing localised corrosion mostly in or slightly above the tidal zone. The steel framed structure at the western end of the wharf appears quite stable and is providing good longitudinal and lateral stability for the rest of the timber and steel wharf. The steel-framed structure back to shore appears to have been partly dismantled (longitudinal beams removed) but is still quite stable. It is expected that the steel-framed structure would have a remaining life of many years.

1.2 Wide Timber Wharf at BP Site

This wharf is a typical timber structure comprising timber piles, timber headstocks, timber girders and a timber deck. The wharf is in poor condition throughout. A large majority of the timber piles are severely necked in the tidal zone and would have inadequate load carrying capacity. Many of the planks making up the timber deck are in an advanced stage of rot from prolonged exposure to the atmosphere. About 50% of timber headstocks and girders can be seen to have deteriorated significantly. Given the poor condition of the timber deck overhead, it is expected that the majority of girders and headstocks would be in poor condition (the condition of the top surface of these timbers is the critical factor).

1.3 T-Shaped Wharf at BP Site

This wharf is of similar construction form to the wide timber wharf located nearby. Of the three wharves inspected, this wharf is in the best condition. The wharf consists of an approach jetty (from shore to the T-head), a T-head jetty, 2 dolphins (located at each end of the T-head) and a freestanding fender structure along the face of the T-head. Approximately one-third of the timber piles are necked in the tidal zone to the extent that repairs would be required. The headstocks and girders appear to be in fair condition but perhaps a quarter will require remedial work. Maintenance of the timber deck seems to have been carried out and the deck is in fair condition. Most of the timber piles of the fender structure are necked and will require repair in the near future.

2 MANAGEMENT RECOMMENDATIONS

2.1 Coal Loader Wharf

- It is not considered viable to repair the timber structure of the Coal Loader Wharf due to its advanced deterioration. If a wharf type timber structure is required at the site, it should be built from new materials – modern construction techniques even with timber can imitate the techniques employed in the original construction.

- It may be beneficial to retain the steel-framed structure as this is in far better condition than the timber. Part of the steel framed structure could be used to support a new wharf and this has the potential to save large sums on construction. If large vessels are to be moored at the wharf, it is likely that a steel structure would be required in any case. It is expected that the piles would be re-useable but that the steel beams would need to be modified.

- The existing wharf is positioned very high out of the water. This has the potential for good views but makes vessel usage difficult. Access to vessels moored at the wharf would require the deck to be much lower or a low-level platform introduced.

2.2 Wide Timber Wharf at BP Site

- It is not considered viable to repair the timber of this wharf due to its advanced deterioration. As noted earlier, if a timber wharf structure is required at the site, it should be built from new materials – modern construction techniques even with timber can imitate the techniques employed in the original construction.

- If the site is to be used as part of a working waterfront (refer to Masterplan), it is expected that a range of activities would take place at the site related to providing access to the water. Future uses might include vessel hoisting and lifting (use of crane runway beams), slipways, jetties, ramps, and pontoons. Some of these uses are better suited to a steel piled and/or concrete deck structure rather than a timber wharf structure.

- If moorings from a fixed jetty type structure are to be provided at the site, a timber structure similar to existing may be suitable (however, additional mooring piles may be required).

2.3 T-Shaped Wharf at BP Site

- This wharf is in the best condition of those inspected and repair may be viable. Further more detailed examination would be required to determine the nature of remedial work from which a financial decision can be made about repair versus reconstruction. Reconstruction could be in a form similar to existing or in alternative materials (eg floating pontoons).

- As with the Wide Timber Wharf, the site might be used for a range of activities possibly including vessel hoisting and lifting, slipways, jetties, ramps, and pontoons. Some of these uses are better suited to a steel piled and/or concrete deck structure rather than a timber wharf structure.

- The T-shaped wharf would be suitable for mooring vessels, although additional mooring piles may need to be provided.

- Consideration could be given to removal of one or both of the dolphins and the removal/reconstruction of the freestanding fender structure. This consideration might be driven by financial viability or proposed function.

We trust the above provides the information you were seeking. Please do not hesitate to contact the undersigned if you have any queries or wish to discuss any matter.

Yours faithfully
PATTERSON BRITTON

Peter Coltman
Principal

Review / Verification by PC Date 22/12/99
Created 17/12/99 2:30