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**Sydney Harbour Federation Trust**

**Management Plan – Macquarie Lightstation**  
(Old South Head Road, Vaucluse)

20 DECEMBER 2007



**Australian Government**

**Sydney Harbour Federation Trust**

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## Introduction

On 21<sup>st</sup> August 2003 the Minister for the Environment and Heritage (now the Department of the Environment and Water Resources) approved a Comprehensive Plan for the then seven harbour sites managed by the Sydney Harbour Federation Trust. The plan, which was prepared in accordance with the requirements of the *Sydney Harbour Federation Trust Act 2001*, sets out the Trust's vision for the harbour sites under its control.

A requirement of the Trust's Comprehensive Plan is that more detailed management plans are prepared for specific precincts, places or buildings. In addition to this the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* also requires the Trust to make plans to protect and manage the Commonwealth Heritage values of Commonwealth Heritage Places that it owns. Macquarie Lightstation (which refers to the Lighthouse and ancillary buildings) is identified on the Commonwealth Heritage List as one of these places.

Accordingly, the purpose of this Management Plan is to guide the outcomes proposed in the Trust's Comprehensive Plan and to satisfy the requirements of Schedule 7A of the EPBC Regulations, 2000.

The Macquarie Lighthouse is a working maritime safety structure. It is this function which gives it such significance, reminding us that this is a harbour city which from its colonial infancy has relied on its links to the outside world. The Comprehensive Plan proposes to continue this working function, enhance the landmark qualities of the site and to improve its relationship with the adjacent coastal walk and cliff top parkland. It also proposes to continue and improve public access and to interpret the many phases of history of the site.

The vision for the site is a place where the Macquarie Lightstation's position as an important attraction along the coastal walk and as a prominent harbour landmark is preserved and enhanced. The site's rich cultural heritage, including its early Aboriginal occupation will be protected and interpreted.

## Commencement Date

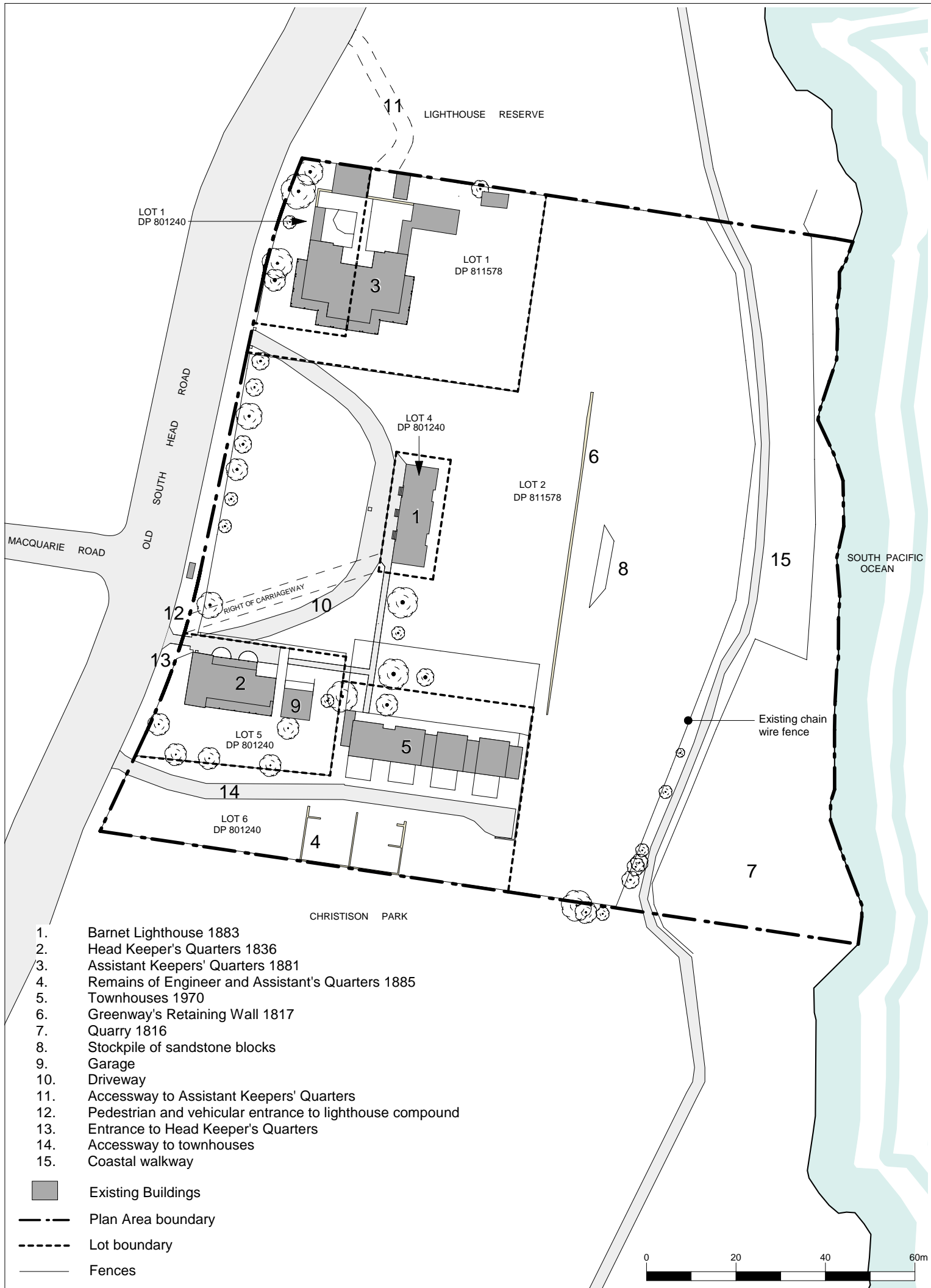
This plan was adopted by the Trust on 20 December 2007 and came into force on that date.

## Land to which the Management Plan Applies

The land covered by the Management Plan is shown by broken black edging on the plan at *Figure 1*. All of the land is included within Lots 1, 4, 5 & 6 in DP 801240 and Lots 1 & 2 in DP 811578 and is currently under the ownership of the Commonwealth Department of the Environment and Water Resources.

The Australian Maritime Safety Authority (AMSA) is responsible for the operation of the Lighthouse.





1. Barnet Lighthouse 1883
2. Head Keeper's Quarters 1836
3. Assistant Keepers' Quarters 1881
4. Remains of Engineer and Assistant's Quarters 1885
5. Townhouses 1970
6. Greenway's Retaining Wall 1817
7. Quarry 1816
8. Stockpile of sandstone blocks
9. Garage
10. Driveway
11. Accessway to Assistant Keepers' Quarters
12. Pedestrian and vehicular entrance to lighthouse compound
13. Entrance to Head Keeper's Quarters
14. Accessway to townhouses
15. Coastal walkway

- Existing Buildings
- Plan Area boundary
- Lot boundary
- Fences



Fig.1 Management Plan Area



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Lot 1 in DP 801240 and Lot 1 in DP 811578 (the Assistant Keepers' Quarters) and Lot 5 in DP 801240 (the Head Keeper's Quarters) are leased as private residences with leases expiring in 2116 and 2119 respectively.

## Aims of this Plan

The aims of this Management Plan are to:

- Maintain the continuing operation of the Lighthouse as a navigation beacon;
- Conserve and interpret the Commonwealth Heritage values of the Macquarie Lightstation and to facilitate its interpretation and appreciation as a landmark historic place in Sydney; and
- Maximise public access.

In doing this it also aims to:

- Be consistent with Commonwealth Heritage management principles;
- Conserve and enhance the landmark qualities of the site and important views to and from the site and retain historic visual connections to the lighthouse lantern;
- Improve the relationship of the site with adjoining public open space and coastal walk;
- Interpret the original Greenway Palladian-style Lightstation and compound, and the quarry;
- Retain the open windswept character of the site and ensure that plantings and vegetation do not obstruct important historical sightlines;
- Improve vehicular access to the Head Keeper's Quarters;
- Provide visitor facilities and amenities including toilets, interpretation and gathering areas;
- Improve the reticulation of existing services on the site including stormwater, water and power;
- Remediate site contamination and hazardous materials;
- Improve the management of stormwater runoff; and
- Apply the principles of Ecologically Sustainable Development (ESD).

## Relationship with the Trust's Comprehensive Plan

This Management Plan is the middle level of a three tiered comprehensive planning system developed to guide the future of the Trust's lands.

The other levels are:

- The Trust's Comprehensive Plan - this is an overarching plan that provides the strategic direction and planning context for all of the management plans; and
- Specific projects or *actions* - *actions* are defined in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and are similar to the concept of *development* as used in NSW planning legislation.

This Management Plan describes specific outcomes for the Macquarie Lightstation. It interprets the Trust's Comprehensive Plan and guides its implementation by providing more explicit detail about the way the site is used, interpreted and conserved.



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This Management Plan has to be interpreted in conjunction with the Trust's Comprehensive Plan, in particular the *Outcomes* identified in *Part 10* of the Trust's Comprehensive Plan and the *Objectives and Policies* in *Part 3*.

The *Outcomes* diagram in *Part 10* of the Trust's Comprehensive Plan for Macquarie Lightstation is reproduced at *Figure 2*.

The *Objectives and Policies* most relevant to this Management Plan are those relating to the conservation of cultural and Aboriginal heritage, access, the removal of buildings, new buildings, design approach, water quality and catchment protection, open space and recreation, tourism, working harbour, and contamination. These *Objectives and Policies* were addressed during the assessment of the site and are discussed in more detail in the relevant sections of this plan.

## Relationship with other Trust Management Plans

This Management Plan is the second to be prepared by the Trust for land within the Woollahra Local Government Area. All of the Management Plans must be consistent with each other as well as any other plans for neighbouring lands.

## Related Policies and Guidelines

There are a number of overarching Policies and Guidelines foreshadowed in the Trust's Comprehensive Plan that will be developed over the lifetime of the Trust and that will also guide the development of the Macquarie Lightstation. Current relevant policies are:

- The Trust's *Leasing policy*;
- The Trust's *Leasing of Land and Buildings to Community Users Policy*; and
- The Trust's *draft Access policy*.

This Management Plan must be interpreted having regard for these policies.

## Statutory Planning Context

### Commonwealth Legislation

All '*actions*' on Trust land, undertaken by either the Trust or on behalf of the Trust, are controlled by the *Environment Protection and Biodiversity Conservation (EPBC) Act, 1999*, as amended.

Section 26 of the EPBC Act protects all aspects of the environment on Trust land from actions taken either on the Trust's land or on adjoining land that may have a significant impact on it, while Section 28 protects the environment from any actions of the Trust that may have a significant impact. The environment is defined to include:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) natural and physical resources; and
- (c) the qualities and characteristics of locations, places and areas; and
- (d) heritage values of places; and
- (e) the social, economic and cultural aspects of the matters mentioned in (a), (b), (c) or



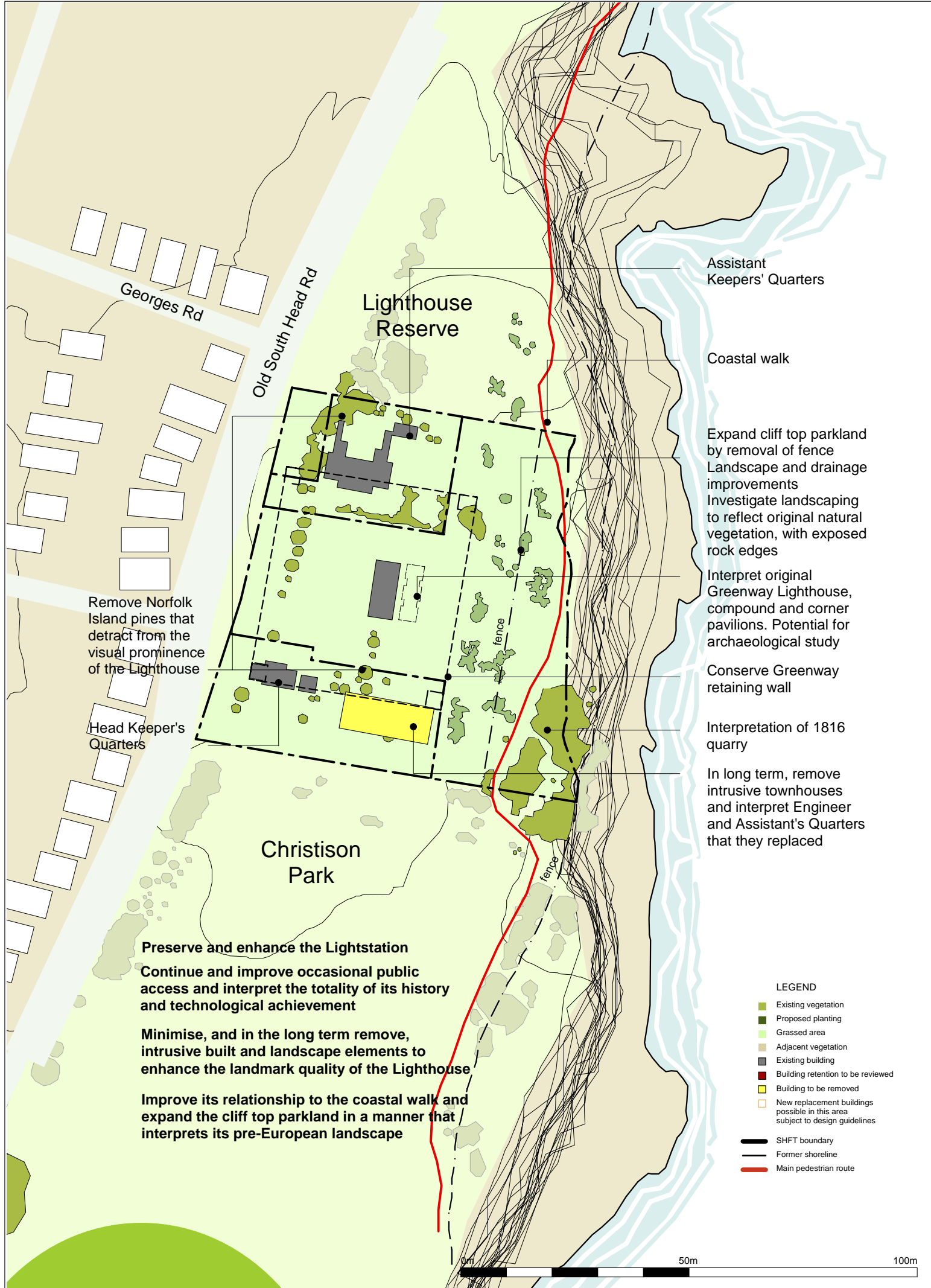


Fig.2 The Trust's Comprehensive Plan OUTCOMES

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(d) above.

Section 341ZC of the EPBC Act requires the Trust to have regard for the Commonwealth Heritage values of a place before it takes an action and to minimise the impact that the action might have on those values. The *Commonwealth Heritage Values* section of this Plan describes the values of the site.

### State Legislation

The *Sydney Harbour Federation Trust Act, 2001* specifically excludes any land owned by the Trust from the operations of state planning law. This includes State Policies (SEPPs) and Regional Environmental Plans (REPs) prepared by the State Government and Local Environmental Plans (LEPs) prepared by councils. Notwithstanding this the Trust has prepared this plan so that it is consistent with both State and local plans.

While the Trust is exempt, the leases for the Head Keeper's Quarters and the Assistant Keepers' Quarters contain conditions that indicate that lessees are to comply with State planning laws and regulations.

The relevant statutory plans are:

### **Sydney Regional Environmental Plan – Sydney Harbour Catchment 2005**

This SREP applies to the whole of Sydney Harbour's waterways, the foreshores and entire harbour catchment. It provides a framework for future planning, development and management of the waterway, heritage items, islands, wetland protection areas and foreshores of Sydney Harbour. Under the SREP, Macquarie Lightstation is identified within the catchment area of Sydney Harbour. The planning principles of the SREP relevant to the site include the:

- appreciation of the role of Sydney Harbour in the history of Aboriginal and European settlement;
- increase in the number of publicly accessible vantage points for viewing Sydney Harbour;
- protection of the natural, scenic, environmental and cultural qualities of the Foreshores and Waterways Area;
- recognition and conservation of the heritage significance of particular heritage items in and around Sydney Harbour;
- conservation of the significant fabric, settings, relics and views associated with the heritage significance of heritage items; and
- conservation of archaeological sites and places of Aboriginal heritage significance.

### **Sydney Regional Environmental Plan No 14—Eastern Beaches**

This SREP applies to land within the Randwick and Woollahra municipalities and incorporates the Macquarie Lightstation site. The aims and objectives of the SREP relevant to the Trust's plans for the Macquarie Lightstation are to:

- protect and enhance significant natural elements such as beaches, cliffs, cliff-top areas, headlands and areas of natural vegetation, including wetlands;
- encourage the upgrading and redevelopment of public areas;
- improve access to and between coastal destinations;



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- protect the environment of land visible from coastal open space areas, particularly areas adjoining the coast, and land along the approaches to significant coastal destinations; and
  - protect items and areas of environmental heritage significance.

### **Woollahra Local Environmental Plan 1995**

The Macquarie Lightstation site is located within the Woollahra Local Government Area. Under Woollahra LEP 1995, the site is zoned for 'General Recreation' purposes. The adjacent Lighthouse Reserve and Christison Park are also zoned 'General Recreation', while to the north the Signal Station site is zoned 'Special Uses'.

The Macquarie Lighthouse building and grounds are listed as Heritage Items in Schedule 3 of the Woollahra LEP 1995.

## **Non-Statutory Plans**

There are a number of non-statutory plans that are relevant to the Macquarie Lightstation, as follows:

### **Macquarie Lightstation Plan of Management 1993**

This plan was prepared for the Department of Administrative Services in 1993 to provide conservation policies and a management framework for the site. The 1993 Plan included information from a previous study, the 1979 *Macquarie Lighthouse* Report by Davies & Wilson prepared for the Commonwealth Department of Construction.

The 1993 Plan of Management has been effectively superseded by the Clive Lucas Stapleton & Partners 2001 Conservation Management Plan and by this, the Trust's Management Plan for the site. The 1993 Plan still has some validity for the Head Keeper's Quarters, and, notwithstanding this, the Trust's Management Plan is generally consistent with it.

### **Woollahra Municipal Council Development Control Guidelines for the Provision of Foreshore Open Space & Access**

This document identifies guidelines to achieve strategic foreshore objectives within the Local Government Area. The guidelines relevant to the Macquarie Lightstation site include:

- Maintain and enhance existing public access to foreshore areas;
- Investigate the basis of private occupation of public foreshore lands and, where appropriate, initiate action to return the land to public use;
- Provide appropriate facilities for access to foreshore parks for people with ambulatory problems; and
- Promote protection of existing views and creation of new ones, from public spaces such as parks and roads, to the foreshore and to the water, so as to complement physical access with visual access.

### **Sharing Sydney Harbour Access Plan**

The Sharing Sydney Harbour Access Plan (SSHAP) identifies a network of new and improved public access ways for pedestrians and cyclists, and waterway facilities for recreational watercraft.



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The Macquarie Lightstation site is identified as a place of cultural interest along the existing 'Coastal Walk' that passes through the site.

## **Plans Prepared for Neighbouring Lands**

Plans and policies prepared by neighbouring land managers provide a context for this Management Plan. The following are particularly relevant:

### Woollahra Council Plan of Management for Christison Park 1996

The Plan establishes the values and significance of Christison Park and details management issues that need to be addressed. Issues relevant to the Trust's plans for Macquarie Lightstation include:

- Encourage continuity in signage, landscaping and planting throughout the coastal cliff parks to reinforce links between coastal areas and the Coastal Cliff walk;
- Protect and improve views where possible by tree lopping or replacement;
- Preserve the Park's skyline;
- Maintain protective fencing along the cliff top;
- Provide adequate lighting to ensure the safety of park users;
- Explore options for improving wheelchair access;
- Conserve items of heritage significance in accordance with Woollahra LEP 1995;
- Alleviate threats to the survival or condition of heritage items; and
- Future plantings should provide park users with some protection from prevailing winds.

### Woollahra Council Plan of Management Natural Area (Foreshore) 1996

This Plan is a generic document which covers several areas of foreshore land with harbour access within the Woollahra Municipality, including Lighthouse Reserve directly to the north of the Macquarie Lightstation.

The Plan contains similar objectives to the plan for Christison Park, including preservation and enhancement of public access and views to and from the Harbour.

## **Site Description**

Situated on Sydney Harbour's southern headland, Macquarie Lighthouse is a prominent regional landmark. The property is located on Old South Head Road, Vaucluse, within the Municipality of Woollahra, 10km by road from the central business district of Sydney.

The Lightstation covers an area of approximately 2.2ha in total. It is in a prominent position near the cliff top at the high point of the ridge. To the east sheer cliffs drop away to the Tasman Sea. To the west, bounded by Old South Head Road and residential development, the land slopes towards the harbour with excellent views to the city. Open parkland lies on the northern and southern boundaries.

The Lighthouse is one of a few prominent landmarks on Sydney Harbour and is representative of the vital link with and dependence of Australia on the sea. It is still used as a guiding light for ships.



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The site has a strong maritime/institutional quality about it. Despite the lighthouse being a well known landmark, visually accessible around the harbour, on the ground the site itself feels 'special' and 'off-limits' as it is largely a fenced-off compound. The elevated, open and windswept character of the place reinforces this character and enhances the bold white, stoic appearance of the lighthouse.

The site represents over 190 years of European settlement and contains many remnants of structures associated with European occupation of the site, including part of the 1816 Greenway compound wall; the Head Keeper's Quarters dating from 1836; the Assistant Keepers' Quarters of 1881; Barnet's 1883 Lighthouse; an obscured World War II observation post and associated shaft and tunnel; remnant garden walls; and numerous other significant archaeological remains. A pile of stone blocks is located east of the Greenway wall. These blocks are thought to have been left on the site after the demolition of the Engineer and Assistant's Quarters, although this has not been confirmed. A townhouse complex occupies the south-eastern part of the property. This is the largest of the residential buildings, (consisting of four dwellings) and was constructed in stages from 1970.

The area is highly exposed and has very shallow soil interspersed with rock outcrops. The Lightstation and adjacent areas have been cleared with some open heath and scrub vegetation being replanted in limited areas. The open areas are grassed and exotic species, of which the Norfolk Island pines are the most obvious, have been planted around the residences.

The eastern portion of the land was opened up in the 1980s and incorporated in the Coastal Walk. It is separated from the lightstation by a chain mesh fence.

## Surrounding Lands

Macquarie Lightstation is one of the sites on the popular 'Coast Walk' that extends from Christison Park immediately south of the Lightstation, past the Gap to Inner South Head.

Christison Park is extensively used by walkers with and without dogs and for active recreation. North of the Lightstation is Lighthouse Reserve, a passive recreation area used for walking and exercising. Both these areas were formerly used by Council for landfill, which has resulted in their being more elevated than the Macquarie Lightstation site.

Signal Hill is located just north of Lighthouse Reserve and contains the historic Signal Station built in 1842 which is on the site of the "Lookout" and flagstaff established in 1790. Just beyond the Signal Station are the Signal Hill fortifications dating from 1892 and upgraded during WWII.

The site is situated close to residences on Old South Head Road and Clarke Street.



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## Site Analysis

### Landscape Character

On the Lightstation's eastern aspect a gentle slope leads down to Hawkesbury sandstone cliffs with a breathtaking drop of 80 metres to sea level. On the western aspect, Old South Head Road separates residential areas on the western side, and open parkland to the east. The parkland is characterised by flat open terraces of mowed grassland with scattered plantings of ornamental trees surrounding buildings, and remnants of formal hedges along picket fences. Several Norfolk Island Pines stand out in competition with the stature of the Lightstation, in what is predominantly a treeless landscape.

Little remains of the coastal sandstone heath and scrub plant communities that once covered the area. Natural regeneration of bush remnants can be observed around sandstone outcrops on the lower slopes of the site and along the cliff edge. Seepage downslope of the rock outcrops has created a boggy soil profile supporting patches of native sedges and rushes.

To the east of the site, the Coastal Walkway skirts the cliff edge providing views of the Lightstation, cliffs, ocean and the surrounding landscape. The historic stone quarry at the south eastern corner of the site is marked by a dense canopy of trees. This provides some shelter in an otherwise exposed landscape. See *Figure 3*.

### Landmark Value

The Lightstation is visible from many locations around Sydney with the most prominent and evocative views gained from the Tasman Sea and Sydney Harbour. There also remains a strong visual connection between the lighthouse and the former Governor's Domain in Sydney, the Sydney CBD, and the Signal Station at Observatory Hill. To the north, the important historic visual connection to the nearby Signal Station is still strong.

The landmark qualities are also reinforced through the design on the ground. The institutional perimeter fencing; the inherent and still-evident symmetry around the lighthouse; the elevated position of the compound; and the non-axial points of arrival to the lighthouse all contribute to the landmark presence of the site. See *Figure 4*.

### Natural Values

#### **Flora**

Most of the Lightstation and its surrounds have been progressively cleared of native vegetation from 1791 onwards. Subsequent development and landfilling have severely reduced the habitat for native flora and fauna. Apart from mowed grassland there are patches of regenerating coastal sandstone heath and scrub on the lower slopes, sandstone outcrops and along the cliff edge east of the lightstation. Natural regeneration is suppressed in areas that are regularly slashed and where weed species have become dominant.

South-east of the Lightstation, an ephemeral wetland habitat has resulted from the excavation of the sandstone quarry. The quarry receives stormwater runoff and has been partially filled with sediment and building waste. Bush regeneration works have



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been carried out by Woollahra Council in this area with the aim of removing weed species while retaining habitat for native birds and frogs.

The quarry contains a mixture of planted and self-seeded native tree species. An area alongside the Coastal Walkway has been also revegetated with local provenance native trees, shrubs, grasses and groundcovers.

Various exotic and native tree species have been planted adjacent to residential buildings on the site. Densely planted native trees surround the north-western corner of the Assistant Keepers' Quarters and adjacent Lighthouse Reserve.

Refer to *Figure 3* for names of species and their distribution over the site.

### **Fauna**

The remnant vegetation and revegetated areas along the coastal walkway and cliffs provide limited habitat for native bird, frog, reptile and invertebrate species due to its narrow linear configuration, limited floristic and structural diversity and exposed topography. However, the ruggedness of the cliff face and its associated remnant vegetation along the cliff edge provides a link in a wildlife corridor extending along the coastal fringe from Sydney Harbour National Park at South Head to Bondi Beach in the south.

The area of the stone quarry contains populations of the Striped Marsh Frog (*Limnodynastes peroni*) and Common Eastern Froglet (*Crinia signifera*). These species are relatively common and resilient in the urban environment. Native bird species include Red Wattle Birds, Blue Wrens and New-Holland Honeyeaters that are found in dense undergrowth of the cliff edges and the stone quarry. Introduced bird species include Pigeons and Indian Mynas.

### **Site History**

The Macquarie Lightstation precinct is recognised as being of great heritage importance. Its significance is derived from its:

- Longstanding role as navigational beacon and landmark on Sydney Harbour;
- Historical associations with Governor Lachlan Macquarie and colonial architects Francis Greenway and James Barnet;
- Significant archaeological remains and potential;
- Technical achievement of the construction of the lighthouse and operation of the beacon.


### **Aboriginal Heritage**

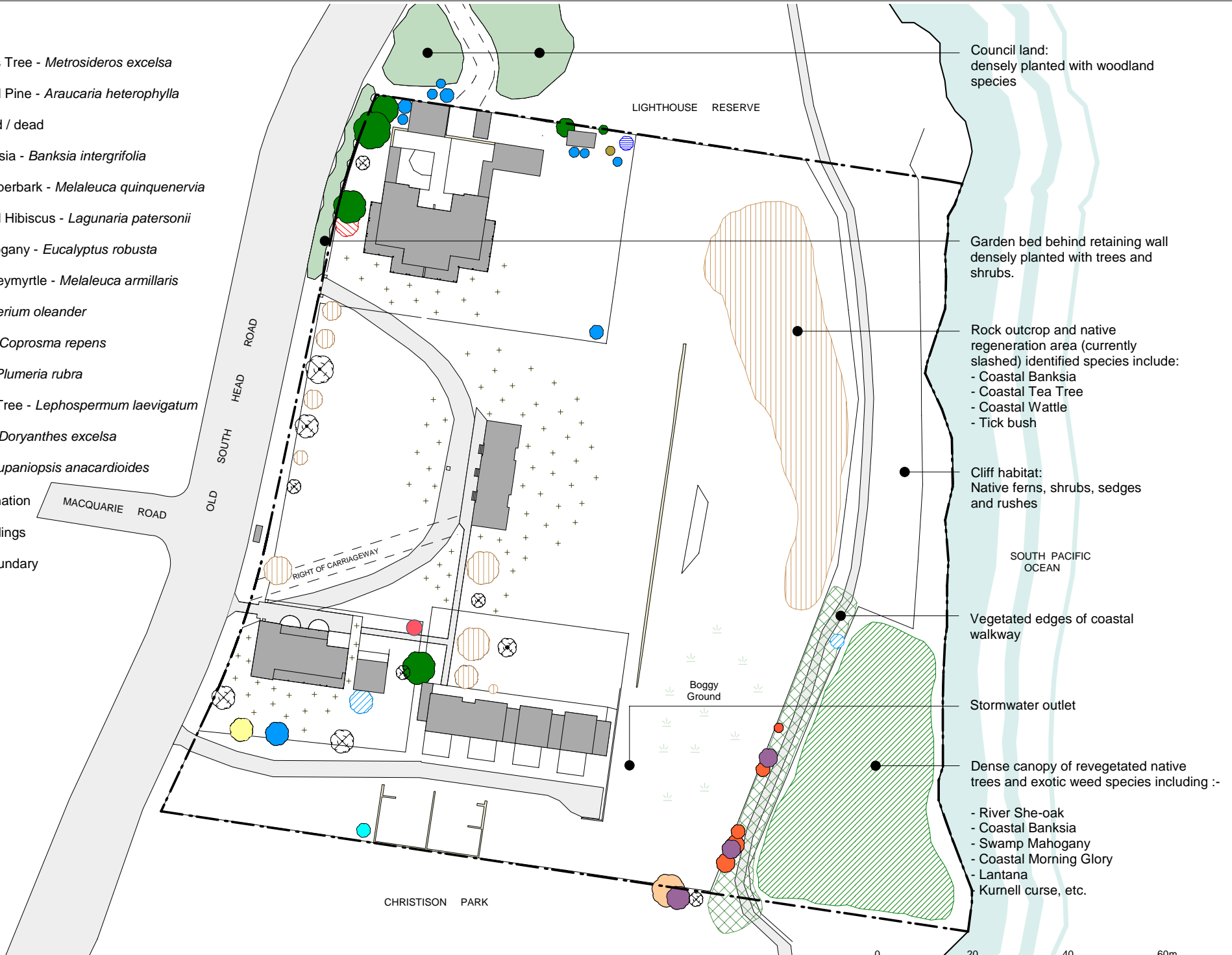
In February 2006 the Sydney Harbour Federation Trust commissioned the Australian Museum Business Services to carry out an Archaeological Survey of the Macquarie Lightstation. This was undertaken in conjunction with the La Perouse Aboriginal Land Council.

The survey found no Aboriginal sites or objects on the surface and that the previous disturbance to the site made it highly unlikely that any Aboriginal material was present. The report does note that the shell material found in the mortar of the remaining



**Legend**

-  NZ Christmas Tree - *Metrosideros excelsa*
-  Norfolk Island Pine - *Araucaria heterophylla*
-  Tree removed / dead
-  Coastal Banksia - *Banksia intergrifolia*
-  Broadleaf Paperbark - *Melaleuca quinquenervia*
-  Norfolk Island Hibiscus - *Lagunaria patersonii*
-  Swamp Mahogany - *Eucalyptus robusta*
-  Bracelet Honeymyrtle - *Melaleuca armillarlis*
-  Oleander - *Nerium oleander*
-  Mirror bush - *Coprosma repens*
-  Frangipani - *Plumeria rubra*
-  Coastal Tea Tree - *Lepospermum laevigatum*
-  Gymea Lily - *Doryanthes excelsa*
-  Tuckeroo - *Cupaniopsis anacardioides*
-  Soil contamination
-  Existing Buildings
-  Plan area boundary



Council land:  
densely planted with woodland  
species

Garden bed behind retaining wall  
densely planted with trees and  
shrubs.

Rock outcrop and native  
regeneration area (currently  
slashed) identified species include:  
- Coastal Banksia  
- Coastal Tea Tree  
- Coastal Wattle  
- Tick bush

Cliff habitat:  
Native ferns, shrubs, sedges  
and rushes

SOUTH PACIFIC  
OCEAN

Vegetated edges of coastal  
walkway

Stormwater outlet

Dense canopy of revegetated native  
trees and exotic weed species :-  
- River She-oak  
- Coastal Banksia  
- Swamp Mahogany  
- Coastal Morning Glory  
- Lantana  
- Kurnell curse, etc.

**Fig.3 Environmental Considerations**

Macquarie Lightstation

