



Land & Property
Management Authority
Crown Lands



Warringah Council

Griffith Park Plan of Management



February 2011

To ensure Crown Land is managed for the benefit of the
people of New South Wales

Cover: Looking north along Long Reef Beach to Griffith Park and Long Reef Point

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Griffith Park Plan of Management

February 2011

Griffith Park Plan of Management (February 2011) has been adopted under the provisions of Section 114 of the *Crown Lands Act 1989*

22 February 2011

**General Manager Crown Lands
under delegation for
the Minister for Lands**

Glossary and abbreviations

DECCW	Department of Environment, Climate Change and Water
EMP	Environmental Management Plan
ESA	Environmentally Sensitive Area
LEP	Local Environmental Plan
LGA	Local Government Area (Warringah)
LPMA	Land and Property Management Authority
LRGC	Long Reef Golf Club Limited
LRSLSC	Long Reef Surf Lifesaving Club
MHWM	Mean High Water Mark
NPWS	National Parks and Wildlife Service
PoM	Plan of Management
RTA	Roads and Traffic Authority (NSW)
SEPP	State Environmental Planning Policy
SLSC	Surf Life Saving Club

Executive Summary

Introduction

This Plan of Management provides the framework for managing Griffith Park, Long Reef Headland. Designated as a Significant Area by Warringah Council, this Crown Reserve is highly valued by the local community and visitors alike. Griffith Park is an outstanding resource of regional significance in terms of its scenic, natural, environmental, social, heritage, educational and recreational values. It plays a vital role in Warringah's open space system.

The Plan is a revised and updated version of the draft Griffith Park Plan of Management, originally adopted by Council in 1999 and revised in 2005. It reinforces the actions of the 1999 Plan, many of which have been commenced or completed in the previous 10 years. It also responds to new pressures on Griffith Park and provides a comprehensive framework for management of all activities within the Park.

Griffith Park Plan of Management (February 2011) takes a values-based approach to land planning and management, identifying the Park's key values, role and purpose so that these assets may be protected and enhanced. The Park's unique qualities, its environmental sensitivity and susceptibility to changing and sometimes inappropriate uses are all defining criteria for the way in which this land must be managed. Issues will come and go but the values which make Griffith Park unique are more enduring. However, these values can be easily lost, damaged or diminished so it is important to ensure their protection for the enjoyment of this generation as well as for generations to come. The issues currently or potentially threatening these values are therefore central to the Plan of Management.

Warringah Council's approach in facilitating this process and providing opportunities for extensive consultation has significantly improved understanding of these values and issues amongst stakeholders and the broader community. Issues such as the public's right to access on Crown Reserves, development proposals, leased areas and lease boundary changes, potential alienation of public land and equity have come to dominate much of the public discussions. The previous versions of the Plan were prepared with substantial community and stakeholder consultation. Ongoing community input has been sought through liaison with key stakeholders, and this has provided important contributions to the Plan.

Basis for Management

Reflecting community values expressed through community consultation, the Plan defines the Park's values, its role and purpose in the context of being a Significant Area and Crown Reserve. The following key values were identified in the 1999 Plan, and have been reinforced through community consultation undertaken as part of the review:

- public access;
- recreational setting;
- uncluttered openness;
- grandeur and scale;
- wildness (particularly in southerlies and storms);
- outstanding scenic qualities and extensive views of the coastline;
- sense of rugged isolation;
- the headland's strong "sense of place" for contemplation and reflection;

- relief from a highly built-up suburban environment;
- land-based and water-based recreational opportunities;
- beaches, coves and inter-tidal rock platforms;
- low-key recreational facilities; and
- fitness, exercise and “walking the dog”.

In addition to these identified community values, a further investigation was conducted into Griffith Park’s values, role and purpose. The park contains many important values, a number of which are of regional, state and international significance, as follows:

- coastal natural heritage;
- scenic, environmental and visual qualities;
- recreational opportunities, activities and facilities;
- unique topography and geology on Sydney’s northern beaches;
- inter-tidal rock platforms and Long Reef Aquatic Reserve (scheduled in the Register of the National Estate);
- relic dunes on the headland and Long Reef Beach area;
- rehabilitated wetlands;
- remnant indigenous vegetation and biodiversity;
- habitat values and wildlife corridors;
- Fisherman’s Beach heritage area;
- historic and culturally significant landscaping;
- archaeological and indigenous heritage (midden sites);
- educational values; and
- scientific significance associated with many of these values.

As already outlined, these values are affected, and in some cases potentially threatened, by a broad range of uses, actions, management practices, development and lease proposals. Some of these threats, opportunities and constraints are current while others may not yet exist. The Plan seeks to address all of these current and potential issues within an appropriate planning framework which will ensure the protection of the Park’s identified values, its role and purpose.

The vision statement for Griffith Park encapsulates these values, provides guiding principles and addresses the fundamental expectations of the community as follows:

“To recognise Griffith Park’s role as a ‘significant place’ in the Warringah open space system, ensuring protection and conservation of identified values through appropriate management, in a way which best meets the environmental, recreational, educational and social needs of the present community and for future generations”.

Management Strategies

In accordance with this vision statement, the Plan establishes management strategies, proposed actions, performance indicators and priorities for implementation. Key desired outcomes and actions of the management strategies, as developed in the Plan, are as follows:

- 1) **Maintain a community partnership**
Continue to harness the energy, knowledge and skills of the local community and maintain clear communication mechanisms for issues of importance to Park users.
- 2) **Facilitate public access**
Facilitate opportunities for improved public access, circulation and safety.
- 3) **Recognition of the Park's unique qualities and environmental sensitivity**
Broaden the current public purpose under the *Crown Lands Act 1989*, from "Public Recreation" to "Public Recreation and Coastal Environmental Protection" to recognise the significance and need for protection of identified environmental values.
- 4) **Reinforce and expand "Environmentally Sensitive Areas"**
Expand on the system of "Environmentally Sensitive Areas" (ESA) based on the findings of the *Long Reef Headland biodiversity inventory and conservation monitoring strategies for the future: final report 2005* (Agata Mitchell, Enviroscope Consultancies, 2005), to provide specific protection, management and development control.
- 5) **Establish and implement guidelines to assess development and lease proposals**
Promote an open, community-based consultative process. Ensure consistency with Crown policy, Council's adopted policies and Warringah's Local Environmental Plan (LEP). Address specific development criteria as scheduled in the Plan, including permissible uses and development within designated ESAs and/or in the vicinity of heritage items.
- 6) **Address current development and lease proposals**
The approach to management of major development proposals is outlined below. New developments are only permitted within Griffith Park where they relate specifically to the Public Purpose of Griffith Park.

Proposal	Action
Stormwater Rationalisation Stage 2	<ul style="list-style-type: none"> ■ Supported subject to appropriate funding and achievement of environmental, water quality and water supply objectives, including establishment and maintenance of a riparian habitat zone.
Long Reef Golf Club (LRGC) Maintenance Shed relocation	<ul style="list-style-type: none"> ■ Support relocation to the north-eastern corner of the LRGc lease boundary, subject to development consent under Warringah's LEP and compliance with relevant design principles. ■ Bulk store areas to be relocated to adjacent to the northern side of the lease boundary or other suitable location. ■ Relocation of the above is approved on the condition that Stage 2 of the Stormwater Rationalisation Plan is approved and committed.
Golf administration & Sports amenities building	<ul style="list-style-type: none"> ■ Supported subject to compliance with the development principles and development consent under Warringah's LEP. ■ To include replacement of the existing public amenities.
Long Reef Surf Lifesaving Club renewal	<ul style="list-style-type: none"> ■ Supported subject to compliance with the development principles and development consent under Warringah's LEP. ■ Potential integration of the existing kiosk and public amenities into the building.
Warringah Surf Rescue Building	<ul style="list-style-type: none"> ■ Permit a licence for use of part of the building for educational and scientific purposes. ■ Support appropriate commercial uses of part of the building related to the public purpose of Griffith Park, subject to compliance with Land and Property Management Authority policy. ■ Investigate redevelopment (demolition and rebuilding) or renovations and alterations to existing building to accommodate multiple users.

7) Promote and apply ecologically sustainable management practices

Develop and implement an effective biodiversity strategy, including the following:

- implement the findings of the Biodiversity Inventory (Mitchell, 2005), including monitoring of established Environmentally Sensitive Areas;
- develop a range of habitat values linked to lagoons/ wetlands;
- address stormwater and pollution issues;
- progressive removal of exotic weed species and replacement with locally indigenous species;
- control feral pest populations;
- improve maintenance of protective dune fencing and boardwalks;
- promote management to enhance core bushland areas, linking buffers and wildlife corridors, and adjust management practices in accordance with the strategy;
- continue community-based environmental education programs; and
- assist and support community groups seeking funding assistance.

8) Protect and enhance heritage values

Ensure protection of built, natural and landscape heritage items in accordance with Warringah's LEP and other relevant legislation. Improve public education in heritage protection, including brochures and interpretive signage. Ensure sites of Aboriginal significance are protected. Examine options for establishing educational facilities and equipment for school groups.

9) Address headland instability, public safety, recreational impacts and risk management

Implement and monitor cliff stability management practices which will protect ecological processes and the integrity of the rock platform, including:

- maintain appropriate risk management strategies, including:
 - routine geological inspections and survey monitoring;
 - exclusion fencing options around high risk areas;
 - permanent warning signage;
 - retain the natural integrity of these cliffs and limit modifications; and
 - review options for active slip zones (as per Council's stability assessment of the north-east section of the headland);
- extend scope of stability assessment noted above to southern section of headland;
- continue to monitor Coastal Walk for erosion impacts and cliff-crest stability, and maintain the Walk on the basis of stability assessment and geotechnical input;
- continue to monitor risk management issues, in particular:
 - adjacent to the 16th and 17th holes on the golf course;
 - the "Pinch Point" over the stormwater outlet, Long Reef Beach; and
 - along the emergency service vehicle road adjacent to the 17th fairway.

10) Address vehicular and pedestrian access, safety and circulation

Improve quality of public access, recreational linkages and pedestrian circulation, providing an integrated system of pathways, interpretive/ directional signage, landscaping and recreational facilities, including:

- address public safety and resolve points of conflict between vehicles and pedestrians, including disabled access, golfers and buggies;

- investigate shared footpath/bike path option linking Long Reef Beach car park to Fisherman's Beach;
- investigate opportunities for establishing an integrated bushland circuit track, linking Griffith Park/Long Reef with Dee Why Lagoon;
- investigate opportunities for establishing a cross-course corridor for the non-golf playing public;
- continue to manage multiple tracking in hind-dune areas of Long Reef Beach;
- improve existing parking areas, addressing seasonal loadings;
- improve visual amenity of car park areas; and
- continue to support beach safety operations;

11) Improve quality of recreational facilities and amenities

Conduct an audit of existing recreational facilities and implement a coordinated approach to recreational facilities design and construction, including:

- rationalise existing signage;
- improve shade and shelter opportunities for large groups;
- maintain existing recreational facilities, designated recreational areas and open space to a high standard;
- review and monitor recreational activities which may threaten values;
- upgrade existing public amenities;
- upgrade seating, picnic tables/seating and litter bins; and
- investigate opportunities for improving facilities, safety and access in the Unleashed Dog Exercise Area.

Action Plan

These management strategies or desired outcomes form the basis by which the Park's values can be managed and protected on a sustainable basis, whilst meeting the needs of the present community as well as for future generations. Performance measures and priorities for action have been assigned accordingly.

The Landscape Masterplan (Appendix 1) identifies the physical locations and relationships of proposed actions within Griffith Park.

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1. INTRODUCTION

Griffith Park was proclaimed as a Crown Reserve in 1914 and Griffith Park Reserve Trust was established in 1995. On 15 July 1995 Warringah Shire Council (now Warringah Council) was appointed reserve trust manager and charged with the care, control and management of the reserve.

Council adopted a Plan of Management for Griffith Park in 1999. It operated effectively as Council's primary strategic framework for the management of Griffith Park as a Crown Reserve. In 2005 Council reviewed and updated the 1999 Plan of Management to ensure that it remained relevant and was responsive to changing pressures on Griffith Park. Similarly, the 2005 Plan of Management has been reviewed, revised and amended to prepare Griffith Park Plan of Management 2011 (the Plan). The Plan's preparation was funded by Warringah Council.

1.1 Location

This Plan of Management applies to the public land described as Griffith Park in the Warringah Land Register. The Park is located within Sydney's northern beaches between the suburbs of Dee Why and Collaroy and covers an area of 70.8 hectares (refer to Figure 1). The Park's boundaries are delineated by the following geographical items:

- Pittwater Road (western boundary);
- Anzac Avenue and Fisherman's Beach, Collaroy (above Mean High Water Mark (MHWM));
- Long Reef headland (above MHWM);
- Long Reef Beach, north of Dee Why Lagoon entrance (above MHWM); and
- The boundary with the Dee Why Lagoon Plan of Management, in the south-western corner of Griffith Park.

Griffith Park encompasses the entire Long Reef headland, rising from the relatively low basin area of the golf course, sporting and recreational areas in the west to the rugged cliffs of the eastern headland. Long Reef headland forms an extensive promontory surrounded by the ocean on its southern, eastern and northern sides.

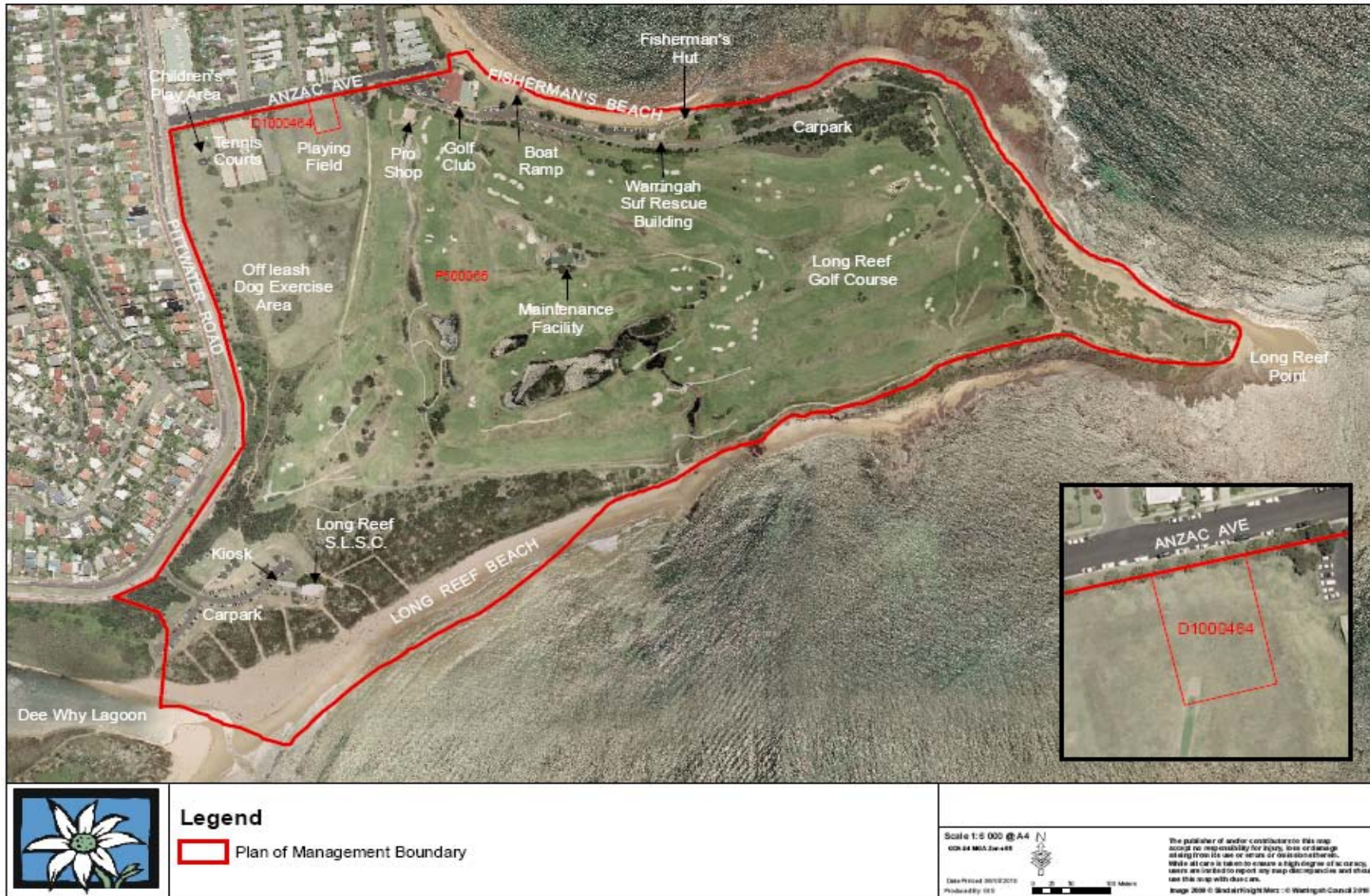
The boundary of the Crown Reserve, and the Griffith Park Plan of Management, is defined on the ocean side by the mean high water mark. Extensive inter-tidal rock platforms extend to the east and north of the headland, below mean high water mark, including an Aquatic Reserve under the control of the NSW Fisheries.

1.2 Land to which this Plan applies

Griffith Park was resumed for a public park and proclaimed for public recreation under the *Public Parks Act, 1912*, on 14 August 1912. Subsequently the Park was proclaimed as a Crown Reserve on 20 May 1914. Under the *Crown Lands Act 1989*, this public land is dedicated for the purpose of "Public Recreation". As shown in **Figure 1** and noted in **Table 1** the Park comprises two reserves:

- Reserve P500065 gazetted on 20 May 1914 managed by Council as trustee, and
- Reserve D1000464 gazetted on 22 January 1965 being devolved to Council under the *Local Government Act 1993*.

▪ **Figure 1: Location Plan**



▪ **Table 1: Warringah Land Register – property details for Griffith Park**

Reserve Name:	Griffith Park	Improvements:	Golf Course/ Club House Tennis Courts/ Club House Helipad Surf Rescue Radio Room (GF 205.020.001) Long Reef Surf Lifesaving Club Long Reef Kiosk and Public Amenities Amenity Block Oval Children's Play Equipment
Property description:	Crown Reserve P500065, Lot 1 D.P. 64163 Crown Reserve D1000464, Lot 2396 D.P. 752038		
Owner:	Crown		
Management:	Reserve P500065: Griffith Park was proclaimed by Government Gazette of 20/05/1914. Warringah Council was appointed trustee by Government Gazette of 15/7/1994 Reserve D1000464: Warringah Council has responsibility under s. 48 <i>Local Government Act 1993</i> .		
Public Purpose:	Current - Public Recreation	Notes:	See Plan 4169-3000. Partly leased to Collaroy Tennis Club (SP 1108) Partly leased to Long Reef Golf Club.
Street Name:	Pittwater Road		
Suburb:	Collaroy		
Area (Ha.):	70.82		
File:	Council records held with the Electronic data management system		
Parish:	Manly Cove		

2. PLANNING CONTEXT

2.1 Crown Lands Act

Griffith Park has been identified by Warringah Council as a Significant Area within Warringah's open space network in recognition of its key values, role and purpose within this network. Management plans have been prepared for all of Warringah's significant areas.

Griffith Park is also part of a much larger system of Crown Reserves throughout New South Wales. Warringah Council therefore has an ongoing role as reserve trust manager to provide for the management of Griffith Park in accordance with the *Crown Lands Act 1989*. A Plan of Management (PoM) under this Act provides the framework for managing public land.

It is an essential requirement in preparing a PoM that the public purpose of the Reserve is identified and used as a basis for planning and management. It is a further requirement that all land uses must either support or be ancillary to the Reserve's public purpose. Griffith Park is dedicated for the purpose of Public Recreation. This Plan of Management is consistent with this purpose. Griffith Park is a recreational and natural resource of value to the local and regional population, and the Plan of Management reflects this by catering for the sustainable management of a wide range of recreational activities cognisant of its environmental values.

Section 11 of the *Crown Lands Act 1989* provides a set of principles for Crown land management. These, and the extent to which the Griffith Park Plan of Management (February 2011) complies with the requirements, are set out in **Table 2**.

▪ **Table 2: Compliance with the principles of Crown land management**

Principles OF Crown land management	Compliance through the Griffith Park PoM
Environmental protection principles be observed in relation to the management and administration of Crown land.	The Plan recognises the important environmental values of the reserve and includes measures to control activities to manage and enhance these values.
The natural resources of Crown land (including water, soil, flora, fauna and scenic quality) be conserved wherever possible.	The Plan proposes broadening Griffith Park's public purpose to 'public recreation and coastal environmental protection'. The Plan includes designation of Environmentally Sensitive Areas, measures to protect headland, beach and other foreshore areas, and measures to protect the unique visual character of the area.
Public use and enjoyment of appropriate Crown land be encouraged.	The Plan encourages public access for a wide range of activities.
Where appropriate, multiple use of Crown land be encouraged.	Griffith Park provides opportunities for a range of recreational activities and for use by a wide range of individuals and groups. Facilities (including buildings) are managed for multiple use through provisions to ensure public access to all areas of the Park in recognition of its status as public land.
Where appropriate, Crown land should be used and managed in such a way that both the land and its resources are sustained in perpetuity.	The Plan aims to provide a framework for the sustainable management of Griffith Park by protecting the community and environmental values identified for the area.
Crown land be occupied, used, sold, leased, licensed or otherwise dealt with in the best interests of the State consistent with the above principles.	The Plan enables leasing, licensing, occupancy and use of Crown land within Griffith Park only where those activities are consistent with the public purpose of Griffith Park.

Furthermore, once a Plan of Management is adopted by the Minister for Lands no operations may be undertaken on or in relation to the Reserve unless they are in accordance with the Plan.

2.2 Crown Lands Policies

The following policies of the Land and Property Management Authority (LPMA), Crown Lands Division, have been considered during the preparation of the Plan of Management and reference is made as appropriate within the Plan:

- *Food and Beverage Outlets on Crown Reserves* (LPMA 2004);
- Draft Policy Position: *Surf Lifesaving Facilities on Crown Public Recreation Reserves* (January 1998); and
- Draft Policy Position: *Clubs on Crown Reserves* (September 1996).

2.3 Warringah Council's Coastal Management Framework

Warringah Council has a coastal management framework which provides an integrated approach to the management of all its coastal recreational open space in accordance with its corporate objectives, adopted principles and relevant legislation.

The framework must address a complex array of coastal public lands, extending from Queenscliff to North Narrabeen, including Community Land owned by Council and Crown Reserves under Council's care, control and management. A key document is the *Recreation Strategy for Warringah's Beaches and Coastal Open Spaces* (adopted 23 June 1998). This document establishes a set of Guiding Principles consistent with Crown land principles, namely:

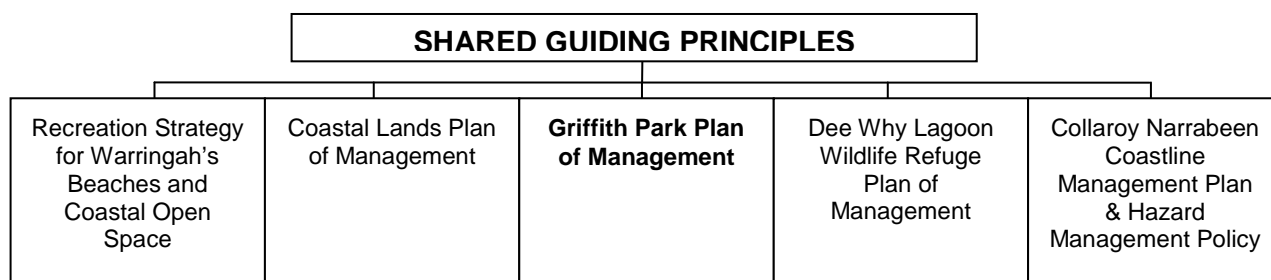
- to enhance the recreation experience of beach and coastal open space users through provision of quality recreation facilities and settings which cater for all groups in the community, whilst conserving the natural character of the coastline;
- to preserve and manage the beaches and coastal open space as the people's space, ensuring broad community access and availability to a diversity of recreation settings and opportunities for current and future generations;
- to manage recreational use of Warringah's coastal open space in a manner which protects and enhances its natural environmental, aesthetic, cultural, heritage and recreational qualities.

The Plan for Griffith Park represents an important component of this framework and shares the guiding principles. Also sharing these principles, Council has prepared other plans including:

- The Coastal Lands Plan of Management (adopted by Council in 2002), that applies to other coastal Crown and community lands in Warringah, but not to Griffith Park (because it is specifically covered by the Griffith Park Plan of Management).
- Dee Why Lagoon Wildlife Refuge Plan of Management (adopted by Council in 2002), which applies to the lagoon and foreshore areas immediately south of the boundary of the Griffith Park Plan of Management.

Table 3 illustrates Council's Coastal Management Framework for coastal open space planning and this Plan's relationship to other strategy documents which share the same guiding principles.

▪ **Table 3: Council's Coastal Management Framework**



2.4 Warringah Council's Strategic Documents and Plans

The following Council documents have been used to assist and guide the strategic outcomes of this Plan of Management, ensuring consistency in values, principles and policies:

- Warringah's Strategic Community Plan (regularly updated);
- Recreation Strategy for Warringah's Beaches and Coastal Open Space (1998);
- Sports in Warringah Strategy (2004);
- Coastal Lands Plan of Management (2002);
- Warringah Local Environmental Plan 2000;
- Local Habitat Strategy (2007);
- Bushland Policy 2007;
- State of Environment Reports;
- Council's Policy register;
- Research conducted as part of the preparation of the draft 2009 Recreation Strategy.

This Plan of Management provides a strategic framework for the management of Griffith Park, including identifying appropriate development, and guiding principles to ensure development and use do not impact on the values of the Park. However, development proposals are only able to precede within Griffith Park subject to the development consent requirements of Warringah Local Environmental Plan 2000. Warringah LEP permits, with development consent, any use that is authorised by the Plan of Management. Any development proposals must therefore comply with the Plan of Management, Warringah LEP and other relevant planning policies of Council.

2.5 Other Relevant Legislation and Policies

This Plan has been prepared in accordance with the provisions contained within relevant legislation and policy guidelines, including but not limited to the following:

- *Environmental Planning and Assessment Act 1979;*
- *Local Government Act 1993;*
- *Environment Protection and Biodiversity Conservation Act 1999;*
- *Protection of the Environment Operations Act 1997;*
- *Threatened Species Conservation Act 1995;*
- *Disability Discrimination Act 1992;*
- *Noxious Weeds Act 1993;*
- *Rural Lands Protection Act 1998;*
- SEPP 19: Bushland in Urban Areas;
- SEPP 71 - Coastal Protection;
- SEPP Infrastructure;
- NSW Government's Coastline Management Manual 1990.

3 AIMS OF THE PLAN

This Plan of Management aims to provide a clear, concise and practical framework for the management of Griffith Park as an area reserved for public recreation cognisant of its environmental values. The Plan is intended to be performance oriented in order to contribute towards Council achieving its strategic vision, goals and strategies.

In accordance with Council's broader goals and objectives, the Plan aims to achieve the following strategic outcomes for Griffith Park:

- identify and assess Griffith Park's values and uses;
- define Griffith Park's role within its LGA and regional context;
- identify and assess key issues affecting the resource base;
- develop an understanding of the resource at an organisational level;
- set a vision for Griffith Park spanning the next 20-30 years;
- establish management strategies and their resourcing implications; and
- assign directions and priorities in a strategic plan (5-years).

3.1 Outcomes of the Plan

The outcomes sought from the Plan are divided into three key sections, as follows:

- **Community Consultation (Section 4)**
Community consultation is an important component in the preparation and implementation of this Plan of Management, particularly for establishing community values and issues.
- **Basis for Management (Section 5)**
Geographic, traditional, historical, environmental, biodiversity, scenic, recreational, heritage and other values of significance which attach to this Crown reserve are identified and evaluated.
- **Management Strategies (Section 6)**
A management framework is established by which Council and the community may protect and preserve those identified values worthy of protection while allowing sympathetic use and development of the Reserve in a way which best meets the recreational and other needs of the community. A landscape masterplan has been developed which highlights the key features and proposed actions for the Park (**Appendix 1**).

4. COMMUNITY CONSULTATION

Warringah Council actively seeks the involvement of the community in the preparation of plans of management to ensure the plans address community desires, values and needs and to ensure they comply with statutory requirements. Involving the community in the plan of management process:

- provides a direct line for communication of community values which will underpin the plan of management;
- creates a sense of ownership and responsibility within the community for community land;
- taps into the large amount of local knowledge about the site; and
- advises and keeps the community informed.

Extensive community consultation was conducted during the preparation of the first Plan of Management for Griffith Park in 1999. A significant review was conducted in 2004 and 2005 involving additional consultation. A summary of consultation undertaken as part of the 1999 and 2005 Plans can be found in the 2005 Plan of Management.

The 2005 Plan of Management prepared by Council supported the use of Griffith Park by the Sydney Northern Beaches Surf Life Saving Branch. Following Council's adoption of the 2005 Plan, residents opposed to this use met with the then Department of Lands, the owner of the land, and sought to have this element of the Plan amended. Subsequently in 2006 the Department directed Council to remove reference to the Branch determining that it was not a compatible purpose. Review of the 2005 Plan has been conducted, in part, to give effect to this direction.

The draft Griffith Park Plan of Management was publicly exhibited between 9 November and 7 December 2009. 56 submissions were received, most of which supported the draft Plan. Council adopted the amended draft Plan at its meeting of 23 March 2010 and recommended that it be formally adopted under the *Crown Lands Act 1989*. Records associated with the community consultation and Council's adoption of the draft Plan, are available on Warringah Council's website: www.warringah.nsw.gov.au.

Additional community consultation will occur as part of any design finalisation process for all significant projects listed in the Plan in accordance with Council's Community Consultation Policy.

5. BASIS OF MANAGEMENT

This section of the Plan outlines:

- the values attached to Griffith Park by the community and why they are important;
- the role of Griffith Park in the lives of the community and within the greater Warringah open space system; and
- a vision for the future of Griffith Park.

5.1 Overview of community values

This Plan takes a values-based approach to planning and management of Griffith Park. This approach allows the Park's key values, role and purpose to be identified so that these assets may be protected and enhanced. "Values" can be simply described as "what is important about a place" (*Succeeding with Plans of Management - A Guide to the Local Government Act and Crown Lands Act*, Manidis Roberts 1996, page17). Community values and the important issues affecting these values have been identified through the community consultation process as outlined in **Section 4**.

The process of community consultation confirmed the high value placed on Griffith Park by the local community. The following key values were also identified in the 1999 Plan of Management, and re-affirmed through consultation with the community as part of the preparation of the 2005 Plan of Management:

- Values associated with the physical features of Griffith Park:
 - uncluttered openness;
 - grandeur and scale;
 - wildness (particularly during southerlies and storms);
 - outstanding scenic qualities and extensive views of the coastline;
 - sense of rugged isolation;
 - the headland's strong "sense of place" for contemplation and reflection;
 - relief from a highly built-up suburban environment;
 - beaches, coves and inter-tidal rock platforms;
- Public recreation values:
 - fitness, exercise and "walking the dog";
 - low-key recreational facilities;
 - land-based and water-based recreational opportunities;
 - public access;
 - community services including surf lifesaving;
- Coastal environmental protection values:
 - relationship to Long Reef Aquatic Reserve and Dee Why Lagoon Wildlife Refuge;
 - unique geological and soil formations;
 - remnant coastal vegetation communities;
 - significant fauna habitat including habitat for a wide variety of waterbirds and shorebirds;

- Educational and scientific research values:
 - opportunities for school and university education associated with the natural values of the reef and headland;
 - opportunities for scientific research into the natural values of the area;
 - community based public education and volunteer involvement;
- Cultural heritage values:
 - presence of indigenous heritage sites;
 - maintenance of historic associations through retention of historic buildings and cultural plantings; and
 - heritage listing of Long Reef Aquatic Reserve.

Long Reef headland is a unique feature of the northern beaches landscape, with a rare combination of natural, environmental, scenic, educational, cultural and recreational values attached to this Crown Reserve. Griffith Park’s distinctive coastal headland geology, windswept cliffs, beaches and rock platforms, wetlands, heaths and open grassed spaces, combine to form an area of unique landscape character and quality. The outstanding range of scenic, natural, environmental, social, heritage, educational and recreational assets make Griffith Park a particularly significant area within Warringah’s open space system. It is highly valued by the local community, regional and overseas visitors alike.

The relatively undeveloped nature of this stretch of coastline is seen by many in the local community as integral to quality of life and community identity. Consultation has identified that the community strongly values Griffith Park’s open space and recreational qualities, its unique landscape character, “low-key” simplicity and uncluttered qualities. There is general agreement that Griffith Park should be protected and managed in a way that retains this character, its natural qualities and “sense of place” for future generations to enjoy.

Griffith Park’s values have been further researched and evaluated to determine their respective levels of significance, at the local, district, regional, state and national levels. In addition, the adjoining inter-tidal rock platforms and reefs protected within Long Reef Aquatic Reserve have values of national significance. **Table 4** summarises these values and their levels of significance.

▪ **Table 4: Values and level of significance**

Values	Level of Significance				
	Local	District	Regional	State	National
Coastal natural heritage	✓	✓	✓	✓	
Unique topography/ geology	✓	✓	✓	✓	
Environmental/ biodiversity values	✓	✓	✓	✓	
Remnant indigenous vegetation	✓	✓	✓	✓	
Rehabilitated wetlands	✓	✓	✓		
Long Reef Aquatic Reserve	✓	✓	✓	✓	✓
Archaeological/ indigenous heritage	✓	✓	✓		
Fisherman’s Beach cultural heritage	✓	✓			
Significant cultural vegetation	✓				
Scenic values & landscape qualities	✓	✓			
Recreational values	✓	✓	✓		
Public access	✓	✓	✓		
Educational/ scientific values	✓	✓	✓	✓	✓

5.2 Scenic and physical values

Griffith Park covers an area of outstanding scenic quality on the northern beaches with its unique topography, dramatic headland cliffs, rock platforms, beaches, dunes and wetlands. It is a diverse mix of natural and cultural landscapes of regional significance. The managed cultural landscape of the golf course and historic plantings of Norfolk Island Pines at Fisherman's Beach dominate much of Griffith Park's scenic character.

The Park's openness and uncluttered open space (**Photograph 1**) provide important visual relief from the residential and commercial development along its western boundaries. The relative size of this coastal open space system is made all the greater when viewed in the context of neighbouring Dee Why Lagoon Wildlife Refuge. The southern shoreline of Dee Why Lagoon provides expansive views over the lagoon wetlands and dune system with distant views to Long Reef headland.

Within this relatively large tract of open space amid suburban development, the headland and its inter-tidal rock platforms act as a natural "magnet" for locals and visitors. The nature of the headland promontory with its cliff-top elevation, its isolation, openness to the elements and expansive scenic qualities are all highly valued by the community. People have always been drawn to the top of the headland by its strong physical qualities and outlook. This has been assisted through local volunteers who have embellished features such as the 'Greenlink' walk. For many people, the location evokes a strong spiritual connection and is a place of contemplation and reflection.

The key strategies in terms of maintaining the scenic and physical values associated with Griffith Park include:

- ensuring development and recreational use remain low key and unobtrusive;
 - maintaining and enhancing native vegetation, which is central to the natural character of the area;
 - ensuring public access is retained;
 - maintaining and enhancing the diversity of natural landscapes and features present within the Park.
-
- **Photograph 1: Images of the predominant character of Griffith Park**



5.3 Public recreational values

The existing public purpose of Griffith Park under the *Crown Lands Act 1989* is "Public Recreation". The detailed review and analysis of the Park's values and role, however, identify that this purpose must be consistent with the protection of this unique coastal environment. Inappropriate management of recreational use has the potential, even within a relatively short time frame, to lead to a loss of these values. The challenge lies in determining the best means for protection and management of identified values with respect to changing recreational needs and trends. Recreational pressures must be balanced with the need to conserve the unique natural values of Griffith Park, which for many recreational users are the primary reason for visiting the Park.

The beaches and coastal reserves within the Warringah area form an extensive open space system which is characterised by a diverse range of recreational settings and opportunities (*Recreation Strategy for Warringah's Beaches and Coastal Open Space*, p.9). Recreational values are closely linked with environmental quality and significance of a place as well as the opportunities, activities and facilities available for public recreation and visitation. Griffith Park, with its diversity of values, is made up of many smaller parts, each with its own focus, character and role to play, attracting a range of visitors and activities for the experiences they offer.

Visitors seeking an individual or group preference for certain recreational opportunities are drawn largely from the local, district and metropolitan regional levels, and to a lesser degree, the national and international levels. Although there is currently little specific information on Griffith Park's user groups, recreational numbers, peak loadings and preferred activities, there is no doubt that this Park's role within the Warringah reserves system is that of a popular regional resource.

Recreational pressures have continued to grow and impose ever-increasing pressures on the natural, environmental and scenic values of Griffith Park. In particular, the growth in number of visitors, time available to participate in leisure activities and the increasing range of recreational pursuits have continued to impact upon Griffith Park's fragile headland soils, its dunes and inter-tidal rock platforms.

The Recreation Needs Assessment of the Warringah Community, prepared for Warringah Council by the University of Technology Sydney in 1998, identified that although there was broad satisfaction by the community with the range and quantity of existing recreation facilities, the quality of these facilities was the major area of concern. The need for upgrading of public amenities, resolution of parking issues, and improved access, lighting and maintenance were broadly identified in the Warringah Recreation Needs Study. *The Warringah Recreation Strategy Plan* (1999) identifies broad recreational values and strategies for the Warringah area.

A number of proposals for upgrading recreation facilities have been raised through the community consultation process. The consultation conducted as part of the 2005 Plan indicated a preference to retain and replace the children's play equipment in approximately the same location near Pittwater Road and Anzac Avenue. This project was completed in 2007.

Other proposals include:

- a new sporting amenities/Golf Club administration building, to replace the existing public amenities and provide change and clubhouse facilities for sports teams using the playing field and service the needs of golfers;
- upgrading of the lighting on the playing field to meet relevant standards for night training;
- extensions and alterations to the Long Reef Surf Lifesaving Club building to provide improved facilities for the club and the general community; and
- relocation of the maintenance shed within the Long Reef Golf Club to improve the layout of the golf course and facilitate implementation of the stormwater rationalisation plan.

5.3.1 Proposed sporting amenities and golf administration building

Council considered a proposal from a sporting club to construct a new club building adjacent to the playing field as part of the 2005 Plan. The proposal contained change rooms, a meeting and functions room, kiosk and bar. The proposal sought to provide appropriate standard facilities for all sporting groups that use the playing field, as well as improved toilet facilities for the public (public toilets would be externally accessible). The proposal was to provide facilities for functions, and meetings, and would be available for hire through the head licensee to any member of the Warringah community. A kiosk is also proposed for use on sporting days only, to be run by club members or associates. This would replace the existing caravan kiosk, which is in poor repair.

Community consultation in 2005 indicated general support for new facilities, but community concern in relation to the scale of the proposed building, particularly the function room component. Consultation with the Land and Property Management Authority indicated a preference to locate the building on the site of the existing public amenities building, to the east of the playing field. The potential to co-locate with the relocated golf club pro-shop, for which a development application has been approved by Council, was considered. However, this was determined to be inappropriate due to the difficulties in managing conflicting construction timelines at the time. Subsequently the Golf Club has re-assessed its stand alone pro-shop development and worked with the local sporting clubs to develop an integrated proposal inclusive of the sporting amenities and pro-shop.

The integrated proposal is considered to be consistent with the public purpose of the Griffith Park Crown Reserve, because it will provide facilities that are required to support the use of Griffith Park for public recreation purposes. However, the scale of the building should be limited to that required to meet the needs of the sporting clubs for playing days and club meetings only and the needs of golfers using Long Reef Golf Course only. The building could contain:

- home and away change rooms;
- externally accessible public toilets (male and female) to replace the existing public toilets (**Photograph 2**);
- a small kiosk and food storage area, for use on playing days only;
- a small meeting room, for sports club meetings only;
- storage rooms for sporting equipment; and
- golf administration & care taker facilities to enable booking of games, lessons, purchase, hire of and storage of equipment to enable golf at Long Reef Golf Course.

The building should be located so as to not reduce the available playing area for any sport that uses the playing field, in particular cricket. It should also be located to ensure that emergency vehicle access to other areas of Griffith Park is maintained from Anzac Avenue. The sports amenities section would be generally available for use by all sporting clubs and other groups that use Griffith Park, consistent with the requirements of the *Crown Lands Act, 1989*. However, the building shall not be available for function hire, or used for club functions (other than administrative meetings and uses associated with training and games days). No liquor licence is to be issued for the premises, and no alcohol is to be served. The licensed Long Reef Golf Club is able to serve these needs within Griffith Park.

The specific design of the building is to be addressed through a formal application to Council. However, the following general principles shall apply:

- the building is to be consistent with Council's LEP;
- the materials and finishes are to be of earth or other natural tones;
- the building is to provide an attractive facade to Anzac Avenue and be in keeping with the low-key development of Griffith Park;
- public access is to be provided to the public amenities part of the building, separate to access to other parts of the building, including change rooms;

- the building is to achieve appropriate energy efficiency standards, with consideration given to rainwater re-use, solar hot water and low energy fittings and appliances; and
- landscaping is to use plant species that are indigenous to Griffith Park, and planting is to be low scale.

- **Photograph 2: Existing amenities building**



5.3.2 Lighting upgrade at the sports field

Council has been requested to upgrade the lighting at the sports field to meet the required standards for night competition matches. Council agrees that the lighting requires upgrading to enable safe use of the field for night training, and that this is consistent with the public purpose for Griffith Park. **Section 6** includes a management action to upgrade the lighting to meet standards for training. Any upgrade to lighting is to ensure that light spill to adjoining residential areas meets relevant standards. Increasing night use to competition standard will be subject to further assessment by Council when a specific proposal is submitted for consideration.

5.3.3 Extensions and alterations to Long Reef Surf Lifesaving Club

In 2003 Long Reef Surf Lifesaving Club (LRSLSC) proposed substantial extensions and upgrading of the existing surf club. The Land and Property Management Authority supports the renewal of the existing surf club, and amenities building to support local surf life saving activities and to meet contemporary needs and expectations by the new development providing services like public toilets, change rooms, meeting spaces and food and beverage outlets. The building is to be considered a community asset accessible to the wider community in line the State Government policies.

The existing buildings, when viewed from the north and west, are relatively shielded from view due to topography and vegetation (**Photograph 3**). They are also generally shielded from view from Long Reef Beach, but are visible from some points and also from the headland. Any rebuilding of Long Reef Surf Club should maintain a low profile to minimise visual intrusion of man made structures into what is otherwise a relatively natural environment and be designed to a standard commensurate with current community expectations and industry standards.

- **Photograph 3: View of the existing Long Reef Surf Lifesaving Club and amenities building from the north-west**



The rebuilding of the surf lifesaving building and amenities block is considered to be consistent with the Plan's recommended public purpose for Griffith Park; public recreation. It will provide for continued growth in surf lifesaving operations, including community education, member training, and function hire. This would include a limited liquor licence to enable functions on a restricted number of days each year and potential café style facilities within the building. The management actions in **Section 6** permit the upgrade, based on the following principles:

- the building footprint is not to be extended generally beyond the current footprint of the combined surf club, amenities block and kiosk area. At no point should the footprint of any new building or development extend into the existing dune area as delineated by the existing dune fencing;
- the facility design is to be sympathetic to the surrounding landscape with no, or limited visibility from Pittwater Road and integrated into the natural topography of the area. Materials and finishes will complement this integration. The building will seek to demonstrate leading environmental practice in keeping with Council's commitment to environmental sustainability through its adopted facility development policies;
- any development of the site must not adversely impact on surrounding sand dunes. No increase in vehicular access is permissible through the immediate dune system;
- the building will be up to two storeys and in accordance with the height limits under Warringah's LEP. No access or activity is permissible on the roof of any building (other than for maintenance purposes);
- materials and finishes are to be appropriate to the open space and beachfront character of the site and to be of a quality and durability acceptable to Council;
- the building is to be available for hire by the public, including other community groups;

- the building could include a cafe/kiosk open to reserve and beach users alike and operate subject to State Government guidelines. The Club building could contain a function area that can be used for surf club functions and be available for hire by the wider public for social gatherings such as weddings, birthdays and other regular community uses such as exercise classes;
- tenure conditions (lease/licence) conditions will ensure that impacts on neighbours are minimised and are in keeping with the character of Park and nearby uses; and
- general improvements and landscaping works are to be consistent with the natural ecological characteristics of the surrounding sand dune vegetation communities.

The detailed design of the building by Council would be subject to the development application being served upon the owner (LPMA) and the Council issuing development consent. If relocation is preferred, three main options are available (with final design and location subject to further consultation with the community and key stakeholders). These are shown in **Appendix 2** and are described as:

- Option A: west of the northern arm of the car park.
- Option B: north of the car park in the grassed area.
- Option C: in the grassed area between the two arms of the car park.

5.3.4 Relocation of Long Reef Golf Club Maintenance Shed

Long Reef Golf Club has identified the need to upgrade its maintenance shed to improve its general appearance and functionality, and to comply with occupational health and safety requirements for its staff. Relocation of the shed from its current site in the centre of the golf course is also necessary to facilitate completion of Stage 2 of the Stormwater Management and Rationalisation Plan (see **Section 5.5.2**). Following completion of the stormwater works the current site of the maintenance shed would be under water, being part of the proposed wetlands.

The 1999 Plan of Management included a proposal to relocate the golf club maintenance shed to the south-western side of Griffith Park, adjacent to Pittwater Road (**Figure 2**). This proposal would have required amendment of the lease boundary to provide additional land to the Golf Club and resolution of vehicle access issues, including potential conflicts between pedestrians using the Greenlink Walk and vehicles accessing the maintenance shed. Community consultation as part of the preparation of the 2005 Plan of Management highlighted significant community opposition to the relocation adjacent to Pittwater Road.

Long Reef Golf Club further investigated a range of potential locations for the maintenance shed. A number of potential sites were considered by the Club, in consultation with Council. The majority of sites were ruled out because of the potential visual impact, access issues, environmental impact, or because they would not suit the operational requirements of the Golf Club. As identified in the draft Plan of Management, publicly exhibited in late 2009, the north-east corner of the Golf Club lease area was identified as being an appropriate location (**Figure 2**).

The advantages and disadvantages of both sites are summarised in **Table 5**.

The bulk storage facilities (soil, fuel etc.) that are currently located adjacent to the maintenance shed are also required to be relocated. As identified in the draft Plan of Management these facilities are proposed to be moved closer to the northern lease boundary (**Figure 2**) rather than to the new maintenance shed site. This would reduce heavy vehicle movements across Griffith Park.

▪ **Table 5: Advantages and disadvantages of the potential sites for relocation of the Long Reef Golf Club maintenance shed**

Potential Site	Advantages	Disadvantages
South-west corner	<ul style="list-style-type: none"> ▪ Able to be set into the topography to minimise views from surrounding areas. 	<ul style="list-style-type: none"> ▪ Would require minor extension of the Golf Club lease area into public space. ▪ Located in areas identified as environmentally sensitive in Council's Biodiversity Inventory. ▪ Would be highly visible to Greenlink Walk users.
North-east corner	<ul style="list-style-type: none"> ▪ Able to be set low and shielded from view by topography. ▪ Able to be screened by landscaping. ▪ Entirely within existing lease boundary. 	<ul style="list-style-type: none"> ▪ Visually prominent location when viewed from the west. ▪ Located in areas identified as environmentally sensitive in Council's Biodiversity Inventory (but in an area that is presently highly disturbed).

Community consultation during exhibition of the draft Plan of Management indicated that while the community saw problems with both sites, the preference was to locate the maintenance shed at the north-east corner of the lease area. The management actions in **Section 6** include an action to enable the relocation of the maintenance shed, subject to compliance with the following principles:

- Long Reef Golf Club to provide a commitment to Council, and demonstrate financial capability, to implement Stage 2 of the Stormwater Management and Rationalisation Plan, prior to Council approving any development for the relocated maintenance shed;
- vehicle access to the shed is to be from within the golf club lease area, and not impact on existing environmentally sensitive areas;
- the shed is to be located on disturbed areas within the general location shown on the Landscape Masterplan (**Appendix 1**);
- the shed is to maintain a low profile so as to not protrude above the tree line of existing vegetation;
- the materials and finishes are to ensure that the shed blends with the surrounding landscape;
- the footprint of the maintenance shed is to be minimised;
- remedial landscaping works are to be undertaken to compensate for impacts on environmentally sensitive areas as shown in Council's Biodiversity Inventory;
- the design and positioning of the shed is to address potential impacts on the Long Reef headland conservation area;
- remedial planting and bush regeneration works are to be undertaken at the Golf Club's expense and are to be in locations that contribute to the ongoing maintenance of environmentally sensitive areas or linkages identified in Council's Biodiversity Inventory; and
- the relocated maintenance shed would require approval by Council, and would therefore be subject to further detailed design requirements to ensure that environmental impacts are minimised.

Figure 2: Potential sites for the relocated maintenance shed and bulk storage facility



5.4 Commercial recreational activities

The Land and Property Management Authority have produced a policy position in relation to food and beverage outlets on Crown Reserves (Department of Land and Water Conservation, 2001). Under the policy position, commercial uses such as restaurants and cafes are potentially appropriate where they are consistent with and ancillary to the public purpose of the Crown Reserve. Other commercial uses may also be appropriate, including water-based sporting equipment or play equipment hire (eg. scuba and snorkelling equipment hire). The key consideration in determining whether a commercial use is appropriate is whether the use can demonstrate a clear and direct relationship between other uses that are consistent with the public purpose for Griffith Park.

5.4.1 Warringah Surf Rescue Building

Council has considered the future of the Warringah Surf Rescue Building (**Photograph 4**) since preparation of the 1999 Plan of Management, including commissioning an options assessment study, prepared by ERM in May 2003. The options study concluded in part that:

- multiple use of the building should be encouraged; and
- where Council's beach services unit cannot demonstrate the need to occupy the building, commercial use such as a restaurant or cafe may be considered as an appropriate use of the building.

The management actions in **Section 6** allow commercial use of the Warringah Surf Rescue Building providing the following principles are implemented:

- commercial uses should not occupy the whole building, or preclude the use of the building for a broad range of other public purposes;
- commercial operations must be related to the public purpose of Griffith Park, being Public Recreation; and
- any commercial uses should be consistent with relevant policies issued by the Land and Property Management Authority.

Any commercial use of the Warringah Surf Rescue Building would be subject to approval from Council. Approval can only be issued under Warringah LEP 2000 where the proposed use is permitted under the Griffith Park Plan of Management.

Warringah Surf Rescue Building should be retained or re-built to cater for a range of public purposes. Note that the Emergency Helipad Area is adjacent to this building. The Plan of Management allows for use of the building for a range of uses including:

- education and scientific research;
- commercial uses related to recreational activities within Long Reef Aquatic Reserve and Griffith Park;
- surf rescue and beach services activities; and
- public amenities.

The potential exists to either adapt the existing building to suit these purposes, or to demolish and re-build the building on generally the same footprint, with a minor extension to the east. This would include re-building the existing public amenities. Re-building or adaptive re-use of the existing building are both consistent with the public purpose for Griffith Park. As the building is adjacent to the Fisherman's Hut (**Photograph 4**), listed as a heritage item under Warringah's LEP, any redevelopment must consider the potential for impacts on the heritage values of this precinct.

- **Photograph 4: Warringah Surf Rescue Building and Fishermen's Hut**



5.4.2 Long Reef Beach kiosk

Council has leased the kiosk (**Photograph 5**) adjacent to Long Reef Surf Lifesaving Club for many years. The kiosk provides light refreshments and snacks to beach goers and visitors to the Park.

The primary function of the kiosk, being to provide goods and services to Park visitors, is not intended to change. Maintenance of this type of commercial operation is considered appropriate as it is ancillary to the public purpose of Public Recreation. Expansion of the operation into a cafe may also be appropriate.

Consideration has been given to the potential to integrate the upgrading or re-construction of the kiosk and public amenities with the redevelopment of the LRSLSC building. The Plan of Management retains the option of upgrading the existing kiosk and amenities building in its current location, or rebuilding the building as part of an integrated development.

- **Photograph 5: Existing kiosk and amenities building**



5.5 Coastal environmental protection values

5.5.1 Soils, geology and topography

Griffith Park contains a varied landscape and terrain ranging from a central natural basin draining both to the north (Collaroy Basin) and south (Long Reef Beach) with a gently rising slope to Pittwater Road in the west and Long Reef Headland to the east. Long Reef Trig Station stands 35.6 metres above sea level with the adjacent mounded lookout now the highest point in Griffith Park.

Long Reef Headland, once an island and now a tombolo, is a distinctive promontory on the northern beaches of Sydney with a unique profile and geology. Steep cliffs and talus slopes define the northern, eastern and southern edges of the headland with an extensive inter-tidal rock platform protruding a further 350 metres eastwards at Long Reef Point. This rock platform and associated off-shore reefs extend from Long Reef Beach to Fisherman's Beach. The broad western area adjoining Pittwater Road ranges up to 20 metres above sea level before rising steeply to the Collaroy Plateau on the western side of Pittwater Road.

The exposed southern shoreline can be swept with violent storms generating high seas and strong wave action breaking along Long Reef Beach and the off-shore reefs. In contrast, Fisherman's Beach and associated rock platforms along the north and north-eastern sides are more protected from the predominant southerly storm-generated swells, and these conditions have allowed the formation of small beaches over rubble substrates below eroding cliffs.

Although the Griffith Park Plan of Management covers Crown Land above the high water mark, there are a number of important management issues relating to the inter-relationships between Griffith Park and the adjacent Long Reef Aquatic Reserve (**Figure 3**). These include public access, educational and scientific activities, public risk, and protection of biodiversity values.

The inter-tidal rock platforms and sub-tidal marine areas of Long Reef Point are protected within the Long Reef Aquatic Reserve and managed by the Department of Environment, Climate Change & Water (Aquatic Protected Areas section). The inter-tidal rock platforms and sub-tidal marine areas form an exceptional regional resource of biological, scientific, educational and recreational significance. Moreover, Long Reef Aquatic Reserve is of national environmental significance, being listed in the Register of the National Estate. Inter-tidal areas at Fishermen's Beach are shown at **Photograph 6**.

Long Reef headland is comprised largely of Narrabeen Group shales with clay soils typical of the elevated eastern end. The fertility of these soils is relatively rich compared with the Hawkesbury Sandstone derived soils of Dee Why Headland and the barrier dune formations in front of Dee Why Lagoon and behind Long Reef Beach. The Narrabeen Group formations, the oldest rocks at Long Reef, are generally softer and more easily eroded than the Hawkesbury Sandstone. This has created a distinctive "swept" headland profile rising to seaward cliffs and talus slopes which are somewhat less rugged and vertical in relief than the surrounding headlands (as depicted on the cover of this Plan of Management). Furthermore, the inter-tidal rock platform is distinctive, being largely free of massive boulders and rock debris due to the relatively soft nature of the rocks.

Together, Long Reef headland's unique geological features and the extensive inter-tidal rock platform provide a highly valued scientific and educational resource of regional significance for visiting primary and secondary schools, colleges and universities. The natural processes of weathering soft rocks and erosion of soils on this headland raises a number of issues in relation to cliff-top, steep slope and rock platform management. Many of the steep areas are actively eroding with the subsequent loss of remnant vegetation and invasion by weed species. Moreover, the nature and extent of naturally occurring regressional processes affecting these cliffs and steep slopes raises public safety and risk management issues both along the cliff-top tracks and along the beaches and rock platforms below (LongMac Associates, 1998).

▪ **Photograph 6: Fishermen's Beach and Long Reef Aquatic Reserve**



In some cases, recreational activities may be contributing to accelerated erosion, particularly around the headland and parts of the coastal walk, where hang/para-gliders and pedestrians sometimes stray from the trails into areas of high erosion risk. Ongoing management is required to ensure that natural processes of erosion are not accelerated by human activity within Griffith Park. Fencing, vegetative stabilisation methods and public education are important components of this management strategy. **Section 6** includes management actions to address these issues.

As the Long Reef Aquatic Reserve is outside the area of the Griffith Park Plan of Management, it is not possible to develop management strategies that relate specifically to it. However, high levels of visitation by school groups, tours and individuals are likely to be placing pressure on the important geological and ecological values of the rock platform. More coordinated management of visitation by groups, through management of the Long Reef environmental education facility in the Warringah Surf Rescue Building, has developed as a means of assisting to manage visitation to the Aquatic Reserve.

▪ **Figure 3: Long Reef Aquatic Reserve**



5.5.2 Stormwater management

Currently, six stormwater outlets discharge into Fisherman's Beach, with catchments in the surrounding urban area, including outlets at:

- Florence Avenue, with catchments including Beach and Cliff Roads between Ocean Grove and Brissenden Avenue;
- Florence Reserve, with similar catchment areas to the Florence Avenue discharge;
- Ocean Grove, with a catchment bounded by Anzac Avenue, Pittwater Road, Ocean Grove and Seaview Parade;
- Anzac Avenue, collecting water from Suffolk Avenue and Bedford Crescent (Note, nearly all this water is now directed to the wetland ponds on Long Reef Golf Course); and
- car park at the rear of the golf club building, which captures stormwater from part of the golf course (some water that previously discharged here has been diverted as part of the Stage 1 Fisherman's Beach Stormwater Management and Rationalisation Plan which has already been completed, as shown at **Photograph 7**).

- **Photograph 7: Wetland areas created by Stage 1 stormwater rationalisation works**



Stage 2 of the Fisherman's Beach Stormwater Management and Rationalisation Plan involves progressive diversion of stormwater from these outlets into the golf course. New ponds would be constructed to capture stormwater, which would be used for irrigation thereby reducing reliance on potable water supplies, particularly during times of water restrictions. It would also provide benefits to water quality around Fisherman's Beach, which is currently affected by stormwater discharge during and following wet weather.

During normal low flow operation, excess stormwater would pass through the pond system and be discharged to Long Reef Beach. The majority of stormwater would be captured for re-use within the golf course, providing benefits for the water quality of Fisherman's Beach. In periods of extremely high flow, stormwater would bypass the pond system and be discharged into the ocean at Fisherman's Beach. Some treatment of stormwater would occur through natural filtering and settlement processes, so that any water discharged to the ocean would be likely to be of a higher standard than that currently discharged via the stormwater system. In addition, removal of flow from the pipe discharges would reduce scouring that currently occurs during high rainfall events.

Stage 2 of the Stormwater Management and Rationalisation Plan is consistent with the public purpose of Griffith Park and consistent with the following principles:

- a viable riparian zone of locally endemic plant species is to be established around the perimeter of the wetlands to provide habitat conditions suitable to a range of terrestrial, aquatic and amphibian species likely to inhabit the ponds; and
- water levels in the ponds are to be maintained at a minimum level, to be set through conditions of approval and an Environmental Action Plan under the LRG Environmental Management System (EMS Manual August 2010), to ensure that adequate environmental flows and water levels are retained to maintain the habitat values of the ponds, particularly in periods of dry weather.

To enable Stage 2 of the Stormwater Management and Rationalisation Plan to proceed, Long Reef Golf Club needs to relocate its maintenance facilities from their current location, as discussed in **Section 5.3.4**. The relocation of the maintenance facilities is further justified by the environmental benefits that will be derived from implementation of Stage 2 of the Stormwater Plan.

5.5.3 Vegetation and biodiversity values

Past vegetation patterns and remnant habitat

Before European settlement, the Long Reef area was likely to have supported a complex ecosystem of lagoons and wetlands, upland coastal heaths and grasslands, salt-tolerant foredune vegetation, hind-dune Banksia scrubs, open woodland, pockets of littoral rainforest and pockets of closed forest. In less than two centuries, the once enormous variety of life-forms within this headland area has been largely displaced and decimated by developmental impacts and recreational activities. The remaining natural vegetation, associated life-forms and supporting processes are now under considerable pressure.

By the 1920's-30's, the headland had become largely devoid of its natural vegetation. It is therefore all the more remarkable that existing remnant Banksia stands still contain a relatively diverse understorey of mesic and littoral closed forest species. Remnant indigenous plant species include Yellow Pittosporum (*Pittosporum revolutum*), Breynia (*Breynia oblongifolia*), Muttonwood (*Rapanea variabilis*), Climbing Guinea Flower (*Hibbertia scandens*), Snake Vine (*Stephania japonica* var. *discolor*), Apple Berry (*Billardiera scandens*), Scrambling Lily (*Geitonoplesium cymosum*), Wombat Berry (*Eustrephus latifolius*), Wonga Vine (*Pandorea pandorana*), Pearl Vine (*Sarcopetalum harveyanum*) and Native Violet (*Viola hederacea*).

Although these remnant vegetation communities are now modified, fragmented and simplified to varying degrees, these relatively small areas are of particular significance in terms of habitat values, biodiversity, genetic integrity, landscape character, visual quality and natural heritage values. Griffith Park contains two vegetation communities of significance, Bangalay Sand Forest and Themeda Grassland – both listed as endangered ecological communities under the *Threatened Species Conservation Act 1995*.

It is significant to note that the headland at Griffith Park contains Warringah's only example of coastal headland vegetation occurring on clay soils. This has implications for the management of remnant native grasslands in Griffith Park. Council is required to consider the likely significance of impacts of all activities on the survival of this ecological community. The locations of *Themeda* remnants are shown on **Figure 4**. These areas should be conserved through appropriate management practices including:

- establishment and enforcement of “no-mow” areas within ESA areas that contain *Themeda* grasslands;
- fencing to protect these areas;
- ensuring that new development or activities are not located in these areas and would not indirectly impact on them;
- consideration of the requirements of the *Threatened Species Conservation Act 1995* in relation to all activities that may potentially impact on remnant *Themeda* grasslands; and
- implementation of measures to encourage the spread of *Themeda* into other parts of Griffith Park, consistent with other activities, including extending no mow areas within ESAs and exotic species control.

Remnant indigenous communities are now largely restricted to the highly erodible cliff edges and steep slopes, the north-eastern corner of the golf course, the course roughs, Long Reef Beach hind-dunes and areas adjoining the Long Reef Beach car park.

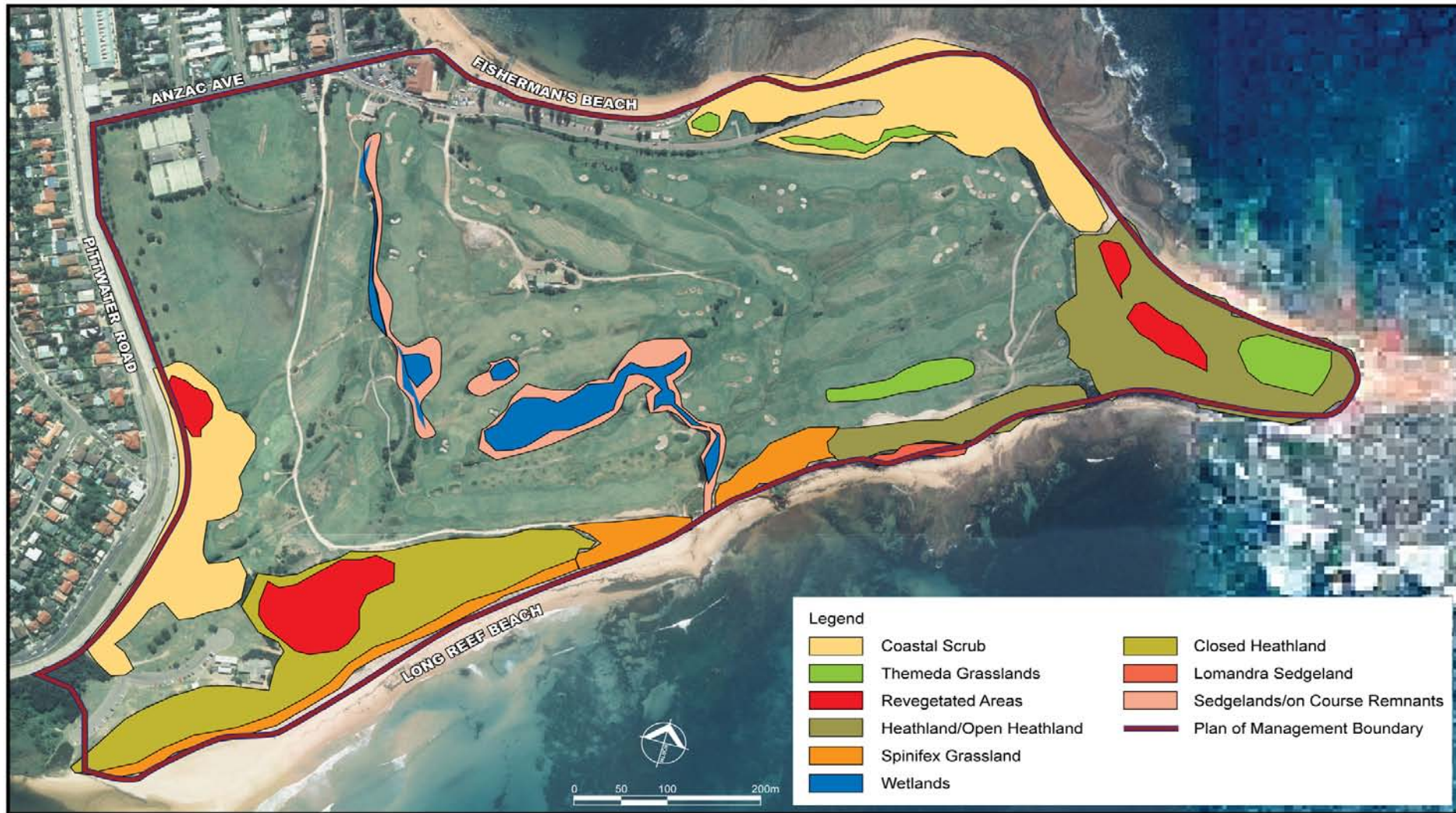
Arising from a management action in the 1999 Plan of Management, Council commissioned consultants to prepare a biodiversity inventory of Griffith Park. This was completed in early 2005 (Enviroscape Consultancies, 2005). The biodiversity inventory has substantially improved knowledge of the ecological values of Griffith Park. **Figure 4** shows the location and extent of vital core areas of remnant indigenous vegetation, based on the biodiversity inventory findings. These areas represent key environmental/biodiversity values for this Plan and they require specific protection and management initiatives to ensure their long term conservation. As such, these areas are the basic building blocks for designation of Environmentally Sensitive Areas (ESA's) in **Section 6.2**.

Section 6 includes management actions to ensure that the recommendations of the Biodiversity Inventory are implemented by Council and other stakeholders at Griffith Park. This includes:

- designation of Environmentally Sensitive Areas in accordance with **Figure 4**;
- management and rehabilitation of ESAs and linkages generally as described in the Biodiversity Inventory; and
- ensuring developments such as the relocated maintenance shed (described in **Section 5.3.4**) do not significantly impact on the values of ESAs and include appropriate compensatory measures to offset any impacts.

The vegetation and biodiversity values described in this section, and other environmental values in general, confirms that Griffith Park is a significant area with exceptional coastal environment and biodiversity values worthy of protection, conservation and sustainable management. This Plan of Management therefore enables a change to the Public Purpose of Griffith Park to: “Public Recreation and Coastal Environmental Protection” in order to address these broader management objectives.

▪ **Figure 4: Remnant native vegetation communities**



Source: Long Reef Headland Biodiversity Inventory (Enviroscape Consultants, 2005)

Invasive exotic species

The original coastal lagoon and wetland complex of the Long Reef basin area has long been drained, filled and transformed into an 18-hole 'links style' golf course, dominated by extensive open areas of exotic turf grasses. Furthermore, exotic weed species threaten the long term viability of remnant indigenous vegetation in many parts of Griffith Park, particularly along the cliff-tops, steep slopes and hind-dune areas.

Beyond the 'islands' of remnant indigenous vegetation, the existing habitat values and wildlife corridors are severely limited by the open nature of the golf course and the dominance of exotic species. Exotic garden escapes and weed species such as Golden Wreath Wattle (*Acacia saligna*), Blue Morning Glory (*Ipomoea indica*), Pennywort (*Hydrocotyle bonariensis*), and Honeysuckle (*Lonicera japonica*) now dominate much of the residual and 'left-over' open spaces along the boundaries to the golf course; whilst Bitou Bush (*Chrysanthemoides monilifera*) has infested the sea-ward cliffs and steep eastern dunes.

Ongoing programs of weed management are required to ensure that invasive species do not dominate over indigenous species. This includes rehabilitation and management works by Council and other stakeholders such as Long Reef Golf Club, Reefcare and other volunteer organisations.

Faunal habitat values

Past clearing, land-fill and management practices have seen the vast range of wildlife habitats significantly reduced in terms of size, quality and inter-connectedness. Coastal wetland and migratory bird species and smaller birds, such as Fairy Wrens, are making a noticeable return to this area as a result of continuing rehabilitation efforts. Reefcare, a community volunteer organisation which undertakes rehabilitation works around Long Reef headland, estimates that more than 140 bird species have been identified at Long Reef. These include migratory shore birds, birds of prey, and birds that occupy the grasslands and heathlands of Griffith Park. Reefcare states that 49 bird species that are threatened or listed on international migratory birds agreements, have been identified at Long Reef. These observations would benefit from additional research.

Council's Biodiversity Inventory (Enviroscape Consultants, 2005) includes findings from surveys of fauna species within Griffith Park. The findings of the Biodiversity Inventory demonstrate that Griffith Park is important on a local, regional and international level as a habitat for a wide variety of fauna species, in particular birds. Mammal habitat conditions are generally poor, and species diversity and numbers are very low as a result. Records from the Biodiversity Inventory were limited to Flying Foxes and Possums. Reptiles and amphibians are reasonably well represented. The Biodiversity Inventory identifies key threats to fauna at Griffith Park including:

- competition, predation and introduction of disease by exotic species. Rabbits are a particular problem. Feral and domestic cats and foxes are also likely to create problems of predation, particularly for smaller mammal and bird species;
- habitat loss, fragmentation and degradation, through a range of pressures including development and incremental damage from over-use or inappropriate use; and
- domestic dogs are common in Griffith Park, and are likely to reduce habitat values for native species.

In 2007 the Long Reef Wildlife Protection Area was declared by Council because of its high conservation value. The protected area includes Fisherman's Beach, Long Reef Headland, Long Reef Golf Club, the entire foreshore and beaches surrounding Long Reef Headland and the dune systems of Long Reef Beach stretching all the way to Dee Why Lagoon.

5.5.4 Bush rehabilitation and management initiatives

Bushland is a highly valued recreational setting within the Warringah area. A number of environmental programs have been undertaken in recent years to stabilise fragile soils and address weed management and biodiversity issues. Most of the re-vegetation efforts of the 1970's and 80's focussed on planting generic coastal species rather than using locally-sourced indigenous species. The resulting outcomes were largely determined by the limited availability of local indigenous species and developing skills in bush regeneration practices.

These older rehabilitation projects have generally failed to incorporate a mechanism for renewal and regeneration. The work has tended to be fragmented and characterised by relatively static management regimes. In spite of these short-comings, the rehabilitation areas significantly enhance Griffith Park's landscape, visual and environmental values, extending upon existing core areas of remnant vegetation and providing important buffers to these communities. Substantial bush regeneration work has been successfully undertaken since the 1999 Plan of Management, by Council-managed bush regeneration contractors and by Warringah Friends of the Bush Volunteers, principally Reefcare. These areas include Long Reef Beach dunes, the western side of Long Reef car park and the north-eastern lineal corridor and headland plantings.

Stage 1 of the Stormwater Rationalisation Plan represents a significant recent habitat rehabilitation initiative by Long Reef Golf Club. Extension of this program by implementation of Stage 2 will provide further benefits, through establishing quality habitat areas in addition to managing the water for irrigation purposes.

Long Reef dunes

The largest re-vegetation exercise in Griffith Park involved the stabilisation of the foredunes along Long Reef Beach from Dee Why Lagoon to north of the car park by the NSW Soil Conservation Service. Long Reef Surf Club was threatened by the natural northward migration of Dee Why Lagoon entrance. A coastal rehabilitation program included the construction of a lagoon diversion wall and dune stabilisation works. The exotic foredune stabiliser, Marram Grass (*Ammophila arenaria*) and the indigenous Coast Wattle (*Acacia sophorae*) were planted on the foredunes. Unfortunately, the Coast Wattle competes vigorously with other local indigenous species. Furthermore, it is only in more recent times that the foredunes have received successive re-vegetation phasing and weed management to improve species diversity. This has led to the formation of a disclimax dune community, largely consisting of a monoculture of Coast Wattle within the fenced dune areas. A significant opportunity exists for species enrichment and structural enhancement using a broader range of locally-sourced indigenous species.

Coastal Walk: The north-eastern corridor

In the 1980's, re-vegetation efforts along the lineal corridor above the eastern car park have created a very dense tall screen of Coastal Tea-tree (*Leptospermum laevigatum*) and Coastal Banksia (*Banksia integrifolia*). Coastal Tea-tree, under a fire-exclusion regime, will become increasingly "leggy" and senescent. This species will continue to shade out and exclude the natural regeneration of other remnant heathland species, thus preventing the formation of a biologically diverse community.

Long Reef Golf Course

Long Reef Golf Club Limited (LRGC), as the major lessee of Griffith Park, is undertaking a range of weed management, bush regeneration, re-vegetation and education programs. These include the establishment of extensive lagoon and wetland rehabilitation work in conjunction with the Stormwater Rationalisation and Management Plan.

The north-eastern corner of the golf course and headland, the cliff-tops and steep slopes, the hind-dune coastal heaths and native grasslands, provide further potential for habitat rehabilitation. Council continues to work cooperatively with LRGCC to implement the Biodiversity Inventory and create linkages between ESAs within and external to the Golf Club lease area, to enhance the ecological values of Griffith Park.

The lagoon and wetland rehabilitation in the low-lying basin of the Park potentially provides a focus for a more integrated approach to biodiversity management. This basin precinct provides a nucleus for fauna habitat enrichment with the opportunity to develop viable wildlife linkages radiating from this core area to other outlying areas of the Park. Stage 2 of the Stormwater Rationalisation and Management Plan would create additional opportunities to develop wetland and riparian habitats, increasing habitat diversity and quality within Griffith Park. The Plan of Management requires LRGC to continue to operate an Environmental Management Plan, and this should include actions to ensure the creation and management of habitat for native fauna associated with the management of the wetlands.

“Reefcare” volunteers

“Reefcare” volunteers are involved in a number of conservation based activities on Long Reef and Griffith Park. The volunteers have been successful in receiving grant funding for environmental education, production of brochures and bush regeneration. Council provides support and supervision for the bush regeneration component of Reefcare’s activities, where the key aim is to enhance habitat on Long Reef headland.

Bitou Bush management

The major infestation occurs in the steep highly active dunes below the main lookout. Work in this fragile area needs to progress under minimal disturbance while maximising follow-up re-vegetation to ensure stability of the dunes. In the past, the effectiveness of any rehabilitation work has been hampered by the impact of feral rabbits which eat the native seedlings.

Furthermore, Bitou Bush provides a ready food source for starlings. These exotic birds then spread the seed through their droppings into other disturbed areas further spreading this aggressive weed to the exclusion of indigenous plants. The Bitou Bush habitat is of no use to indigenous bird species. The control of starlings may lie in the long-term reduction and eventual elimination of Bitou Bush on the headland, rather than suggested trapping methods.

Green and Golden Bell-frog program

An introduction program for the threatened Green and Golden Bell frog operated between 1998 and 2004 through a partnership between Long Reef Golf Course and the Australian Museum. This also involved liaison with Taronga Zoo and the National Parks and Wildlife Service.

Whilst this program was ultimately considered to have been unsuccessful, as no breeding population has been established, the program provided valuable insights for future introduction efforts and provided a central issue around which heightened environmental awareness was achieved by golf course staff. Course improvements continue to be designed and constructed with frog habitat considerations in mind. A review of the program can be found in *‘Attempted introduction of the endangered Green and Golden Bell frog to Long Reef Golf Course: a step towards recovery?’* by Pyke, Rowley, Shoulder and White in Australian Zoologist Volume 34 (3).

Feral pest control

The control of introduced species, such as the Mosquito Fish, rabbits and Common Starlings, is an on-going management issue in the Park. Speckled Mosquito Fish or the One spot livebearer (*Phalloceros caudimaculatus*), posed a significant threat to native fish. Speckled Mosquito Fish are highly resilient to a range of control methods. Eradication was attempted in 2002 by the Department of Primary Industries (DPI), however it was unsuccessful. A further attempt in 2006 as reported by the DPI appears to have been successful. As of April 2008 there were no recordings of the fish.

A feral rabbit population remains at Long Reef and has become resistant to myxomatosis and calicivirus. Council continues to conduct programs to reduced the population. These are likely to be ongoing as permanent elimination is unlikely. In 2004 Council commenced installation of a rabbit proof fence along the eastern end of the headland. Additional fencing was added in 2005/06.

5.5.5 Beach management

The beaches of Griffith Park, Long Reef Beach and Fisherman's Beach, are important recreational resources and contribute significantly to visitation to Griffith Park. Beach areas above MHWL are managed as part of the Griffith Park Plan of Management, while areas below MHWL are not addressed by the Plan specifically. There are, however, obvious relationships between the management of beach areas and the waters that adjoin them. In particular, the relationship between sustainable use of beaches and other foreshore areas and the Long Reef Aquatic Reserve, is critical.

Recreational use of the beaches must be managed to ensure the safety of visitors and to manage the important ecological and visual values of the beaches. In this regard, Council works cooperatively with a range of other organisations, including Long Reef Surf Life Saving Club (which plays an important role in ensuring the safety of beach goers) and the NSW Department of Environment, Climate Change & Water (Aquatic Protected Areas Section) which manages the Aquatic Reserve. Council staff regularly patrol the reserve and adjoining Aquatic Reserve to ensure compliance with environmental regulations.

5.6 Educational and scientific values

Community consultation as part of the 2005 review of the Plan of Management identified community values associated with the educational and scientific research opportunities offered by Griffith Park and the Long Reef Aquatic Reserve. An informal environmental education and resource centre currently operates out of the ground floor of the Warringah Surf Rescue building, at Fisherman's Beach. School groups, university students and research scientists regularly visit the reef and headland to conduct research and educational activities.

There is a strong demand for use of Griffith Park for educational and scientific purposes. Facilities on site would assist in carrying out these activities. It would also be consistent with the proposed public purpose of Griffith Park in that education and research would promote the conservation of the coastal environmental values of the area. The Plan of Management therefore includes an action to investigate the granting of a licence to formalise the operation of the educational and scientific research centre within the ground floor of the Warringah Surf Rescue Building.

5.7 Indigenous and non-indigenous heritage values

5.7.1 Indigenous heritage

The Australian Heritage Commission (1997) states:

“Over many thousands of years, Aboriginal people have left signs of their occupation of Australia. The reminders of where people lived, where they ate or collected food, how they hunted, their art and their sacred sites are all a special part of Australia's heritage...[These places] document the lives of Australian indigenous people not only before European settlement, but also the changes wrought by colonialism”.

Development has reduced known pre-European archaeological sites to two midden sites within Griffith Park, on the north-east and southern sides of Long Reef headland. Although possessing considerable social, community and educational values, the archaeological significance of the middens is assessed to be low. The sites are however protected under the National Parks and Wildlife Act.

Soil conservation works have been constructed to protect the midden sites. The management strategies of this Plan of Management also include measures to protect them, along with any other Aboriginal relics that may as yet be undiscovered within Griffith Park.

5.7.2 Non-indigenous heritage

Griffith Park (west of the Golf Course) and the headland area (east of the Golf Course) are listed under Warringah's LEP as conservation areas due to their landscape significance as a prominent headland within the Northern Beaches area. The statement of significance for Griffith Park, from the State Heritage Inventory, is:

"Aesthetically significant as the most prominent point along this part of the coast. Historically associated with leisure & recreation pursuits which characterised development of the area generally. Social significance for the local community."

In addition, the Fisherman's Hut at Fisherman's Beach is listed as a local heritage item under Warringah's LEP. Long Reef Aquatic Reserve is also listed under Warringah's LEP as a local heritage item.

Developments within Griffith Park and Long Reef headland, and any alterations to, or within the vicinity of the Fisherman's Hut, would need to be undertaken in accordance with the heritage provisions of Warringah's LEP. Proposals for use of heritage buildings and areas within heritage listed sections of Griffith Park would also need to be sensitive to the historic and landscape heritage values of the area.

Based on an on-line search of the Australian Heritage Database in September 2009, there are no additional items listed on the Register in Griffith Park.

Council has a policy on plaques and memorials which is the primary reference for determining the design, siting and appropriateness of plaques and memorials. This policy would be applied to any such proposals within Griffith Park, with reference to this Plan of Management.

5.8 Vision statement for Griffith Park

Warringah Council recognises the importance placed on its beaches and coastline by the community and has identified the need for appropriate coastal planning as a priority. Under its Strategic Community Plan, Council has established the following Vision Statement for the whole Warringah local government area:

"A vibrant community, improving our quality of life by living and working in balance with our special bush and beach environment."

This section of the Plan has identified Griffith Park's values, its public purpose as Crown Reserve and its role as a Significant Area. A vision statement defines a guiding purpose for Griffith Park. It is a statement describing the way the community wants to see this Park's values protected, managed and enhanced for the enjoyment of people today as well as for future generations.

The following statement provides a vision for Griffith Park which will form the basis of management strategies as developed in the next section of this Plan:

"To recognise Griffith Park's role as a 'significant place' in the Warringah open space system, ensuring protection and conservation of identified values through appropriate management, in a way which best meets the environmental, recreational, educational and social needs of the present community and for future generations"

6. Management strategies

6.1 Objectives

This section of the Plan provides the framework for protection and management of values identified in **Section 5**. The vision statement provides the basis for developing “guiding principles” or “desired outcomes” for the management of Griffith Park. In turn, an action plan, based on desired outcomes, defines the specific tasks proposed by Council to achieve the vision statement.

The management strategies have the following objectives:

- to formulate desired outcomes;
- to develop an action plan;
- to provide measures of performance; and
- to assign priorities for each of the actions.

6.2 Environmentally Sensitive Areas

Recreational pressures and inappropriate development present risks to the future management of environmentally sensitive areas within Griffith Park. Recognising the Park’s coastal environmental significance, management strategies must ensure specific protection of areas of ecological and scenic value from inappropriate activities.

One of the key management strategies is the designation of a linked system of Environmentally Sensitive Areas (ESAs), to ensure protection of the significant ecological values of Griffith Park. ESAs were identified in the 1999 Plan of Management and the mapping of ESAs has been updated since that Plan, based on the findings of Council's Biodiversity Inventory (Enviroscape Consultants, 2005). **Figure 5** shows the locations and extent of designated ESAs. Reference should be made to Council's Biodiversity Inventory for further information. The establishment of ESAs is further supported by the following documents:

- Local Habitat Strategy (2007)
- Draft Bushland Management Plan for Coastal Headlands (Adam & Stricker, 1999);
- SEPP 19 Bushland in Urban Areas;
- Warringah’s LEP, Schedule 6 Preservation of Bushland; and
- Bushland Policy (June 2008).

Development proposals, leases and/or licenses that result in significant impacts on the protected values of an Environmentally Sensitive Area, are not permissible under this Plan. It should be noted that the identified ESAs include areas that are degraded, but which have potential through regeneration or rehabilitation to strengthen the ecological values of Griffith Park. As such, developments such as the renewal of the golf club maintenance shed will require careful design consideration. The focus of bush regeneration activities will include management actions to enhance degraded sections of the ESAs, to achieve the conservation objectives for these areas.

▪ **Figure 5: Environmentally Sensitive Areas**



Source: Long Reef Headland Biodiversity Inventory (Enviroscape Consultants, 2005)

6.3 Lease and licence purposes

Under the *Crown Lands Act 1989*, a lease normally applies where exclusive control of all or part of an area is proposed or when a substantial investment is proposed in an area of land (eg golf course or football stadium development). Licences are used when intermittent or short-term occupation or control of all or part of an area is proposed (eg use of a sporting field on specific days). Source: *Land Management Manual: Local Government Act 1993*, CaLM, 1993.

Section 106 of the *Crown Lands Act 1989* requires that proceeds from the sale, lease or licensing of reserves must be used either as directed by the Minister, or for the management of the reserve by the Trustee. Warringah Council spends far in excess of the proceeds from Griffith Park on its management, on an annual basis. In this regard it complies with the requirements of section 106.

The Land and Property Management Authority policy on Crown Land leases and licenses is that public access must be preserved. Activities, services and facilities on Crown land should have benefits for the broad community and must be consistent with the public purpose of the reserve. Although Crown Land leases are not required to be authorised in a Plan of Management, authorisations have been provided to ensure a consistent approach to the management of lands by Council. **Table 6** outlines those purposes for which leases and licences are permitted within Griffith Park.

▪ **Table 6: Purposes for which leases and licenses may be issued**

Leases & licences	
<ul style="list-style-type: none"> ▪ Long Reef Golf Club ▪ Surf Lifesaving Clubs ▪ Sporting and recreational uses ▪ Community events (consistent with the public purpose of Griffith Park) 	<ul style="list-style-type: none"> ▪ Cafes, kiosks and restaurants (in accordance with Land and Property Management Authority policy) ▪ Retail outlets (where the business is related to the public purpose of Griffith Park, and where consistent with Land and Property Management Authority policy) ▪ Educational and scientific purposes

Current leases and licenses, noted below, are consistent with the public purpose of Griffith Park.

- Long Reef Golf Course – 15/08/2006 to 14/08/2026
In line with the Land and Property Management Authority’s policies, Long Reef Golf Course addresses public access and environmental protection through:
 - green fees being set by Council at a reasonable rate for the public;
 - providing a discounted ‘house member’ rate for non-playing members enabling full use of Club facilities;
 - access to the club area by the public under the Registered Clubs Act;
 - a range of not-for-profit groups are able to book meeting facilities at low or zero cost;
 - enabling safe access across the Course by the public; and
 - use of a special environmental account to enact works through the course environmental management plan.
- Tennis Club - 07/03/2001 to 06/03/2011.
- Long Reef Surf Life Saving Club - 30/08/1971 to 10/01/2070.

6.4 Management strategies

Table 7 lists the management strategies derived from the community consultation in **Section 4** and the basis for management in **Section 5**. The Landscape Masterplan for Griffith Park, including key management actions, is provided in **Appendix 1**.

Further detail in relation to the implementation, management and monitoring of some of the key management actions is provided in **Appendix 3**.

6.5 Plan review

If this Plan of Management is to remain relevant in the coming years it will be essential that some degree of consistent review be carried out. The Plan has been set up in such a manner that the separate elements can be readily reviewed and updated on differing time spans.

In line with the various sections of the Plan and in particular the headings in **Figure 7**, it is recommended that the Plan be reviewed in the following sequence and time spans:

Every year

- Review progress of **Actions** and report as part of the Trust's Annual Report
- Review **Priorities**

Every five years

- Review **Desired Outcomes**
- Review **Performance targets** and **Performance measures**
- Review the Basis of Management (**Section 5**)
- Review the Statutory Controls that underpin the Plan (**Section 2: Planning Context**)

▪ **Table 7: Management Strategies**

Values	Item	Action	Priority	Performance Target	Performance measure
Desired Outcome: To maintain a community partnership					
Public access Recreation	A1	<ul style="list-style-type: none"> Harness the energy, knowledge and skills of the local community. 	High	Appropriate community participation and ownership	Community involvement
	A2	<ul style="list-style-type: none"> Maintain a collaborative forum to facilitate the exchange of information and ideas between the LRGC and the local community. 	High	Appropriate communication between LRGC and community	Community and LRGC satisfaction with communication
Desired Outcome: To facilitate public access on the Crown Reserve					
Public access Recreational education/ scientific	B1	<ul style="list-style-type: none"> Ensure Golf Club lease southern boundary is clearly delineated with markers and signage to ensure public safety. 	High	Lease boundary enables public access and is clearly marked	Lease boundary amended and marked
	B2	<ul style="list-style-type: none"> Continue to improve quality of recreational linkages, signage and facility for both golfers and the non-playing public [see items L1-L6 and N1-N14]. 	Medium	Visitor/ user satisfaction	Community feedback/ complaints
Desired Outcome: To recognise coastal environmental context and constraints					
Coastal natural heritage Topography / geology Environmental / biodiversity Scenic / landscape educational / scientific	C1	<ul style="list-style-type: none"> Continue strategies to protect the headland from accelerated soil erosion and loss of environmental values [see items P1-P6]. 	Ongoing	Consistency with design intent	Design review and monitoring post completion
	C2	<ul style="list-style-type: none"> Continue to monitor environmental issues, including waste management, stockpiling of materials, soil erosion, water quality monitoring, protection and enhancement of biodiversity [see items J1-J7]. 	Ongoing	Consistency with conservation intent – maintenance of physical and biological environment	Plans and procedures Vegetation condition assessments
Desired Outcome: To develop effective management structures for implementing the strategies					
Public access Recreation	D1	<ul style="list-style-type: none"> Ensure compliance with 'guidelines for assessing development proposals and impacts' as per actions E1-E6. 	Ongoing	Compliance with policy, legislation, lease and licence conditions	Lease and licence reviews Site and facility audits
	D2	<ul style="list-style-type: none"> Ensure a clear and unambiguous public consultative process for all development proposals, including any changes to lease boundaries. 	Ongoing	Visitor/ user/ neighbour satisfaction	Community feedback Recorded complaints
	D3	<ul style="list-style-type: none"> Conduct consultation with the Crown in the drafting of new lease agreements, ensuring that issues of exclusivity, equity, public access and safety are addressed. 	Ongoing	Crown consultation	Crown support for issue of leases

Values	Item	Action	Priority	Performance Target	Performance measure
Environmental/biodiversity Coastal natural heritage	D4	<ul style="list-style-type: none"> Change Crown Reserve purpose from "Public Recreation" to "Public Recreation and Coastal Environmental Protection". 	High	Public purpose amended	Gazettal of new public purpose
Environmental/biodiversity Remnant native vegetation Rehabilitated wetlands	D5	<ul style="list-style-type: none"> Designate amended "Environmentally Sensitive Areas" (ESA's) based on environmental/ biodiversity values, as specified in Council's Biodiversity Inventory (Enviroscape Consultants, 2005) to provide specific protection, management and development control. 	High	Consistency with conservation intent	ESAs adopted through Plan of Management Vegetation condition assessments
Cultural heritage Environmental/biodiversity	D6	<ul style="list-style-type: none"> Continue to identify management practices which may threaten heritage, community and environmental values [see items J1-J7 and K1-K4]. 	Ongoing	Compliance with policy, legislation, lease and licence conditions	Site and facility audits Lease and licence reviews
	D7	<ul style="list-style-type: none"> Provide adequate funding and resources for implementation. Funding will, in part, be dependant on Council's Strategic Community Plan which is used by Council for resource allocation and it is updated each year. 	Ongoing	Timeliness	Implementation of the Plan of Management in accordance with priorities in Council's Strategic Community Plan
	D8	<ul style="list-style-type: none"> Prepare and make public a Trust report for Griffith Park on an annual basis 	Ongoing	Annual report prepared for Griffith Park	Annual report meets statutory requirements
Desired Outcome: To establish and implement guidelines for assessing development proposals					
Public access Recreation	E1	<ul style="list-style-type: none"> Promote open, community-based consultative process as part of the guidelines. 	Ongoing	Visitor/ user/ neighbour satisfaction	Community feedback Recorded complaints
	E2	<ul style="list-style-type: none"> Ensure consistency with Crown policy, Council's adopted policy and Warringah's LEP. 	High Ongoing	Compliance with policy, legislation, lease and licence conditions	Site and facility audits Lease and licence reviews
Environmental/biodiversity Remnant native vegetation Rehabilitated wetlands	E3	<ul style="list-style-type: none"> Development proposals, which are assessed to significantly impact on the ecological values of designated ESA's, are not permissible. 	High Ongoing	No significant impact on ESAs	Impact on ESAs
Cultural heritage	E4	<ul style="list-style-type: none"> Development, which may impact on scheduled heritage items, must be assessed and approved in accordance with the requirements of Warringah's LEP, the <i>NSW Heritage Act 1977</i>, or the <i>Commonwealth Environment Protection and Biodiversity Conservation Act, 1999</i>. Development in the vicinity of a heritage item should complement its character and maintain the integrity of its heritage values. 	High Ongoing	Compliance with policy and legislation	No significant impacts on heritage items
	E5	<ul style="list-style-type: none"> Proposed changes to lease boundaries must address identified values associated with each parcel of land. 	High Ongoing	Compliance with policy, legislation, lease and licence conditions	Lease and licence reviews Site and facility audits

Values	Item	Action	Priority	Performance Target	Performance measure
Environmental/biodiversity Public access Recreation Scenic/landscape Coastal natural heritage Remnant native vegetation Cultural heritage	E6	<p>Development proposals must address the following:</p> <ul style="list-style-type: none"> ■ environmental sustainability ■ protection of identified community values ■ any changes to existing lease boundaries [see item E5] ■ public accessibility, exclusivity and alienation of Crown Land ■ must demonstrate a clear connection with the purpose and role of this coastal Crown Reserve in accordance with re-classification to Public Recreation & Coastal Environmental Protection ■ consistent with character and scale of existing recreational facilities ■ consistent with visual bulk and architectural scale of existing structures and facilities within this Crown Reserve ■ ensure minimal site disturbance within and adjoining building footprint ■ maintain amenity and public safety in relation to noise emissions and pollutants, building surface glare and reflection ■ Maintain and enhance public safety and security ■ Ensure protection of all ESA's [see item E3] and heritage items[item E4] ■ Minimise traffic hazards and pedestrian conflict in relation to vehicular access, car parking, servicing and delivery areas ■ Ensure appropriate indigenous planting/screening in accordance with site specific environmental constraints and adjoining ESA's ■ Protection of visual and environmental amenity ■ Protection of cultural heritage sites 	Ongoing	<p>Consistency with policy, legislation and guidelines</p> <p>Consistency with conservation intent</p> <p>Consistency with design intent</p> <p>Visitor/ user satisfaction</p>	<p>Site and facility audits</p> <p>Condition assessments</p> <p>Recorded user complaints</p>
Desired Outcome: To establish and implement guidelines for assessing leases and licences					
Environmental/biodiversity Public access Recreation Scenic/landscape Coastal natural heritage Remnant native vegetation Cultural heritage	F1	<p>Ensure that all current and future lease and licence proposals and permits for commercial activities, filming or special events are in accordance with:</p> <ul style="list-style-type: none"> ■ Crown policy, adopted Council policy and permitted uses ■ Warringah's LEP ■ Development guidelines as outlined in items E1-E6 	High Ongoing	Compliance with policy and legislation	<p>Lease and licence reviews</p> <p>Site and facility audits</p>

Values	Item	Action	Priority	Performance Target	Performance measure
Desired outcome: To reinforce and implement parameters for Long Reef Golf Club masterplanning and environmental management					
Environmental/biodiversity Public access Recreation	G1	<ul style="list-style-type: none"> Golf Course Master plan to be reviewed to ensure compliance with items E1-E6 and Stormwater Rationalisation Plan provisions [see items H1-H3]. 	Medium	Compliance with policy and legislation	Lease and licence reviews Site and facility audits
	G2	<ul style="list-style-type: none"> LRGC is to maintain an Environmental Management Plan in accordance with the NSW Department of Environment Climate Change and Water document "<i>Improving Environmental Management on NSW Golf Courses</i>". The EMP must also ensure compliance with relevant NSW legislation including the <i>Protection of the Environment Operations Act</i> and <i>Water Management Act 2000</i>. The EMP is also to demonstrate how the findings of the Biodiversity Inventory and other actions listed for attention by the Golf Club will be implemented within the Golf Course. Preparation and implementation of a suitable EMP is to be a condition of any new lease with the Golf Club. 	High	Compliance with policy and legislation, and lease conditions	EMP prepared to the satisfaction of Council Lease and licence reviews Site and facility audits
	G3	<ul style="list-style-type: none"> Council to continue to liaise with LRG to investigate amending the LRG lease boundary to formalise public access to important recreational and environmental areas. Where this is not practical, clearly defined measures must be in the lease to define public access and sound environmental management. 		Access	Lease boundary amended Public access clearly defined on the ground Access audits
	G4	<ul style="list-style-type: none"> Management of public access to all areas of Griffith Park, including public access across LRG leased areas, is to include consideration of risks to public safety and ensure that appropriate risk management practices are implemented. 	High	Access	Public access clearly defined on the ground Access audits
Desired outcome: To enable implementation of the Stormwater Management & Rationalisation Plan					
Environmental/biodiversity Rehabilitated wetlands remnant Native vegetation Scenic/landscape	H1	<ul style="list-style-type: none"> Stormwater Rationalisation Plan Stage 2 is permissible subject to confirmation of funding approval, receipt of all necessary approvals under NSW legislation and compliance with items E1-E6. 	Medium	Consistency with conservation intent – improvement in water quality and habitat creation Compliance with policy and legislation	Development consent and other necessary approvals granted
	H2	<ul style="list-style-type: none"> Ensure that all flood management, water quality and environmental issues are addressed in a sustainable basis. 	Ongoing	Consistency with conservation intent – improvement in water quality and habitat creation	Monitoring and site/facility audits

Values	Item	Action	Priority	Performance Target	Performance measure
	H3	<ul style="list-style-type: none"> Continue to monitor environmental quality and reduce erosion at Fisherman's Beach. 	Medium	Consistency with conservation intent – improvement in water quality	Monitoring undertaken
Desired Outcome: To address current development proposals, leases and licences					
Environmental/biodiversity Public access Recreation Scenic/landscape	I1	<ul style="list-style-type: none"> Subject to confirmation of intent, funding and all required planning and environmental approvals to implement Stage 2 of the Stormwater Rationalisation and Management Plan, relocate Golf Club maintenance shed to the north-east corner of the Golf Club lease, as described in Section 5.3.4. Should Stage 2 of the Stormwater Plan not proceed, the maintenance facility can be upgraded in its current location. Relocate bulk soil and fuel storage facilities to northern edge of the lease boundary, or other suitable location (also subject to Stormwater Rationalisation Stage 2). 	Medium	Compliance with policy, legislation, and lease conditions Consistency with conservation intent Consistency with design intent	Development consent granted for relocated maintenance building and bulk storage Facility design is consistent with values for Griffith Park
Cultural heritage Coastal natural heritage	I2	<ul style="list-style-type: none"> Review proposal by Long Reef Fishing Club for a license on the Fisherman's Hut in accordance with item F1. 	Medium	Compliance with policy, legislation and lease conditions	Lease and licence reviews
Public access Recreation	I3	<ul style="list-style-type: none"> Continue to encourage broad community use of Long Reef Beach SLSC. Extend and upgrade Long Reef SLSC building generally as described in Section 5.3.3. Long Reef SLSC building to be available for public hire and functions in accordance with Land and Property Management Authority Policy for licensed premises and surf clubs on Crown Land. 	High	Compliance with policy, legislation and lease conditions Access	Lease and licence reviews Site and facility audits Access audits
	I4	<ul style="list-style-type: none"> Investigate potential to develop an integrated facility incorporating extensions and upgrading of Long Reef SLSC, kiosk and public amenities. If the above development does not proceed then enable the upgrade of Long Reef Beach kiosk to meet appropriate health and safety standards. 	Medium	Consistency with design intent	Development consent Design review
Environmental/biodiversity Public Recreation Public access Coastal natural heritage	I5	<ul style="list-style-type: none"> Council to review operational needs of Beach Services Unit to determine whether occupancy of Warringah Surf Rescue Building is required. 	Medium	Access	Site and facility audits Access audits
	I6	<ul style="list-style-type: none"> Investigate need for a licence to formalise operation of environmental education facility within the ground floor of Warringah Surf Rescue Building. 	Medium	Compliance with policy, legislation and lease conditions	Lease and licence review

Values	Item	Action	Priority	Performance Target	Performance measure
Environmental/biodiversity Public Recreation Public access Coastal natural heritage	I7	<ul style="list-style-type: none"> Council to investigate suitable alternative uses for upper level of the Warringah Surf Rescue Building, including leasing for commercial purposes that support the public recreation and coastal environmental protection purposes of Griffith Park. 	High	Access	Site and facility audits Access audits
	I8	<ul style="list-style-type: none"> Investigate need to demolish and rebuild Warringah Surf Rescue Building to cater for the needs of multiple users, on generally the same footprint and building envelope. 	Medium	Consistency with design intent Access	Site and facility audits Access audits Diversity of lease/licence holders
	I9	<ul style="list-style-type: none"> Investigate need to accommodate surf rescue vehicles (jet skis) within Warringah Surf Rescue Building, including consultation with Surf Life Saving Sydney Northern Beaches Incorporated. 	High	Consistency with design intent Access	Site and facility audits Access audits Diversity of lease/licence holders
Public Recreation	I10	<ul style="list-style-type: none"> Develop a sporting amenities & golf administration building adjacent to the playing field near Anzac Avenue, generally as described in Section 5.3.1, including demolition of the existing public amenities and replacement of facilities within the new building. 	Medium	Consistency with design intent Access	Site and facility audits Access audits
	I11	<ul style="list-style-type: none"> Upgrade lighting at the sporting field to meet standards required for night training (not night competition). 	High	Lighting is suitable for night training	Lighting upgraded
	I12	<ul style="list-style-type: none"> Investigate earthworks to level playing field and improve playing surface, subject to funding and appropriate resolution of storm water and drainage issues (potential to direct stormwater runoff into Golf Course ponds to be investigated). 	Low	Playing field meets appropriate standards for safety and fair play	Design review
Desired Outcome: To promote and apply ecological sustainable management practices					
Environmental/biodiversity Remnant native vegetation Rehabilitated wetlands coastal Natural heritage Educational/scientific Scenic/landscape	J1	<ul style="list-style-type: none"> Implement the findings of Council's Biodiversity Inventory, including amendment of ESA boundaries and implementation of monitoring program. 	High Ongoing	Consistency with conservation intent – biodiversity conservation and rehabilitation	Vegetation condition assessments
	J2	<ul style="list-style-type: none"> LRGC to develop a range of lagoon edge conditions and habitat opportunities to promote biodiversity values within the lagoon/wetland system, including Stage 1 and Stage 2 of the Stormwater Rationalisation and Management Plan. Investigate opportunities for extending the wetland corridors along drainage lines and swales. Assist volunteers with regeneration actions based on agreed action plans 	High	Consistency with conservation intent – biodiversity conservation and rehabilitation	Lease and licence conditions Development approval for stormwater rationalisation stage 2 Golf Course EMP

Values	Item	Action	Priority	Performance Target	Performance measure
Environmental/biodiversity Remnant native vegetation Rehabilitated wetlands coastal Natural heritage Educational/scientific Scenic/landscape	J3	<ul style="list-style-type: none"> Continue public education program in catchment management. 	Medium	Consistency with conservation intent	Monitoring and reporting
	J4	<ul style="list-style-type: none"> Progressively remove exotic weed species and replace with locally sourced indigenous species. Control feral pest populations. 	High Ongoing	Consistency with conservation intent – conservation and rehabilitation	Vegetation condition assessments
	J5	<ul style="list-style-type: none"> Establish expanded core habitat, appropriate buffers and corridors linked to designated ESA's. Promote a dynamic management approach emphasising successional re-vegetation programs. 	Medium	Consistency with conservation intent – conservation and rehabilitation	Vegetation/ habitat condition assessments
	J6	<ul style="list-style-type: none"> Monitor management practices to ensure protection of environmental/ biodiversity values. Promote natural regeneration of <i>Themeda australis</i> grassland in golf course roughs. Promote native turf grass trials on golf course fairways. 	High	Consistency with conservation intent – conservation and rehabilitation	Vegetation/ habitat condition assessments
	J7	<ul style="list-style-type: none"> Monitor imported soil/materials and stockpile only within designated LRGC bulk storage facilities. 	High	Compliance with policy, legislation and lease conditions	Development consent Site and facility audits
Desired Outcome: To protect and enhance heritage values					
Coastal natural heritage Cultural heritage Environmental/biodiversity Scenic/landscape Educational/scientific	K1	<ul style="list-style-type: none"> Manage heritage items in accordance with heritage listing under Warringah's LEP. 	Low	Compliance with policy and legislation Consistency with conservation intent	Site and facility audits
	K2	<ul style="list-style-type: none"> Continue to work in cooperation with NSW Fisheries and the National Parks and Wildlife Service (NPWS) on monitoring illegal invertebrate collection. Investigate ways to enhance protection in partnership with Fisheries and NPWS. 	Medium	Cooperation with NSW Fisheries and NPWS	Improved working relationship between Council, Fisheries and NPWS
	K3	<ul style="list-style-type: none"> Assist and support community groups, including in seeking funding assistance, in the protection and management of heritage items and ESA's. 	Ongoing	Grant funding assistance for community based programs	Funding allocation to Griffith Park
Educational/scientific Recreational	K4	<ul style="list-style-type: none"> Maintain public education in heritage protection, including brochures and interpretive signage at Fisherman's Beach and key locations around the Coastal Walk 	Medium	Broader community recognition of heritage values	Community knowledge of heritage issues
Archaeological/indigenous Educational/scientific Public access	K5	<ul style="list-style-type: none"> Maintain erosion protection works for the Aboriginal midden sites as identified in Section 5.7.1. 	High	Consistency with conservation intent – conservation of Aboriginal heritage sites	Sites conserved Implementation of Aboriginal sites management plan and procedures

Values	Item	Action	Priority	Performance Target	Performance measure
Desired Outcome: To address public access, safety and improve pedestrian circulation					
Public access Recreation Scenic/landscape Educational/scientific	L1	<ul style="list-style-type: none"> Improve the quality of public access, recreational linkage and pedestrian circulation, providing an integrated system of pathways, interpretive/directional signage, landscaping and recreational facilities (see items N7-N8, P4-P5 and Q2). 	Medium Ongoing	Access – improved public access and circulation and recreational use	Access audits Provision of appropriate walking tracks
	L2	<ul style="list-style-type: none"> Address public safety and resolve points of conflict between vehicles and pedestrians, including disabled access, golfers and buggies. 	Medium	Consistency with design intent – safety and access	Access audits Provision of appropriate walking tracks
	L3	<ul style="list-style-type: none"> Continue to promote access for the non-golfing public, particularly on the Coastal Walk. 	High	Access – improved public access and circulation and recreational use Compliance with lease and licence conditions	Access audits Provision of appropriate walking tracks
	L4	<ul style="list-style-type: none"> Investigate shared footpath/bike path option linking Long Reef Beach car park to Fisherman's Beach via the eastern edge of the Unleashed Dog Exercise Area. 	Medium	Access – improved public access and circulation and recreational use	Access audits Provision of appropriate walking tracks
	L5	<ul style="list-style-type: none"> Investigate opportunities to establish a bushland circuit track, linking Griffith Park/Long Reef with Dee Why Lagoon. 	Medium	Access – improved public access and circulation and recreational use	Access audits Provision of appropriate walking tracks
	L6	<ul style="list-style-type: none"> Investigate opportunities for establishing a cross-course corridor for the non-playing public. 	Low	Feasibility study undertaken	Appropriateness of cross-course access identified
Desired Outcome: To address parking congestion and local traffic management issues					
Public access Recreation Scenic/landscape	M1	<ul style="list-style-type: none"> Investigate redevelopment/improvements to car parking at emergency vehicle entrance and small car park adjacent to the playing fields, to improve capacity and design, as part of development of the sporting users amenities building (see item I10). 	Low	Improved vehicle access and parking capacity	Parking and access operates efficiently
	M2	<ul style="list-style-type: none"> Investigate opportunities for establishing additional car parking in the Anzac Avenue cul-de-sac section east of Seaview Parade. 	Low	Additional car parking capacity provided	More parking for peak periods
Desired Outcome: To improve quality of recreational facilities and amenities					
Public access Recreation Scenic/landscape	N1	<ul style="list-style-type: none"> Maintain the Council's detailed database of existing recreational facilities. 	Medium	Consistency with design intent	Design review Site/ facility audits

Values	Item	Action	Priority	Performance Target	Performance measure
Public access Recreation Scenic/landscape	N2	<ul style="list-style-type: none"> Implement a coordinated approach to recreational facilities design, protecting values whilst enhancing recreational opportunities. For example, investigate installation of a training circuit. 	High Ongoing	Consistency with design intent – functionality and amenity	Design review Site/ facility audits
	N3	<ul style="list-style-type: none"> Maintain existing recreational facilities and open space to a high standard, consistent with community expectations and safety. 	High Ongoing	Consistency with design intent – functionality and amenity	Design review Site/ facility audits
Educational/scientific Public access	N4	<ul style="list-style-type: none"> Rationalisation of existing signage and development of consistent, well-designed graphically illustrated identification, directional and interpretive signage, including the use of maps. Provide information with simple typeface, fonts, phrasing and consider sensory options. Develop multi-lingual signs based on the most commonly spoken languages other than English. 	Low	Visitor/ user satisfaction in relation to signage and education	Community feedback
	N5	<ul style="list-style-type: none"> Include compliance signs at the Park entrances and key locations such as car parks, in relation to the “no take” areas in Long Reef Aquatic Reserve. 		Signs installed at key locations	Signage installed
	N6	<ul style="list-style-type: none"> Improve visual amenity by landscaping and screening car park areas and entry points using appropriate indigenous species. 	Medium	Improved visual quality – landscaping implemented	Landscaping consistent with the character and amenity of Griffith Park
	N7	<ul style="list-style-type: none"> Improve shade and shelter opportunities for large groups, particularly within the Fisherman’s Beach area. 	Low	Visitor/ user satisfaction Meeting recreation and leisure needs	Community feedback
Public access Environmental/biodiversity Remnant native vegetation	N8	<ul style="list-style-type: none"> Construct well-graded pathways in low-impact materials and finishes. 	Medium	Access Consistency with design intent – functionality and safety	Design review Site and facility audits Community feedback
	N9	<ul style="list-style-type: none"> Ensure that landscape construction works do not create further edge disturbance, increase erosion or weeds or lead to habitat fragmentation. 	High	Consistency with design intent and conservation intent	Vegetation condition assessments Monitoring of stability and erosion
Topography/geology Costal natural heritage Public access Environmental/biodiversity Scenic/landscape Recreational	N10	<ul style="list-style-type: none"> Maintain headland boardwalk from Long Reef Beach to the north-eastern car park to address intensive recreational uses, long term erosion damage, fragmentation of sensitive habitat and cliff crest stability. 	Medium Ongoing	Completion of the boardwalk and track improvements	Track completed Monitoring of impacts eg erosion.
	N11	<ul style="list-style-type: none"> Maintain and monitor designated recreational sites along the cliff crest. 	High Ongoing	Public access retained and safe Maintenance of cliff stability	Monitoring of access and stability

Values	Item	Action	Priority	Performance Target	Performance measure
	N12	<ul style="list-style-type: none"> Review and monitor recreational pursuits and activities, which may seriously exacerbate erosion damage, cause potential conflicts or compromise safety for other user groups. 	High Ongoing	Recreational use does not result in further erosion.	Monitoring of access and stability
Public access Scenic/landscape Recreation	N13	<ul style="list-style-type: none"> Investigate opportunities for funding and upgrade existing public amenities, improving physical appearance, disabled access, floor and ceiling ventilation, natural light, level of cleanliness, general repair and maintenance. 	High Ongoing	Public amenities meet relevant standards and community expectations	Community feedback Compliance with relevant standards
Recreation	N14	<ul style="list-style-type: none"> Monitor seating, picnic tables/seating, litter bins with lids and frequency of rubbish collection to cater for seasonal increase in visitor numbers. 	Ongoing	Ongoing upgrades to facilities is coordinated Improved recreational amenity	Community feedback Site/ facility audits
Desired Outcome: To promote community education and improve management of visiting groups					
Educational/scientific Coastal natural heritage Cultural heritage Environmental/biodiversity Recreation Public access	O1	<ul style="list-style-type: none"> Continue to promote school-based environmental and heritage education programs. 	Medium Ongoing	School group access maintained and managed to minimise impacts	Number of school group visits
	O2	<ul style="list-style-type: none"> Examine opportunities for establishing educational facilities and equipment in the Warringah Surf Rescue Building. 	Medium	Establish environmental education facility	Licence for educational/scientific purposes issued
	O3	<ul style="list-style-type: none"> Review opportunities for improving management of large groups/buses visiting Fisherman's Beach/rock platform areas in consultation with DECCW (Aquatic Protected Areas Section), with the aim of formalising bookings for large groups. 	High	Management strategy for large groups developed and implemented	Access audits
Educational/scientific Coastal natural heritage	O4	<ul style="list-style-type: none"> Continue to promote community programs about responsible use of the beaches and rock platforms, fishing, bait collection, water safety and dune stabilisation. 	Ongoing	Consistency with conservation intent – conservation of rock platforms and beaches	Community programs implemented
Recreation	O5	<ul style="list-style-type: none"> Continue to support beach safety operations. 	Ongoing	Beach safety maintained	Number of incidents

Values	Item	Action	Priority	Performance Target	Performance measure
Desired Outcome: To address headland instability, public safety, recreational impacts and risk management issues					
Coastal natural heritage Topography/geology Environmental/biodiversity Scenic/landscape Public access Educational/scientific	P1	<ul style="list-style-type: none"> Implement and monitor cliff stability management practices, which protect ecological processes and integrity of the inter-tidal rock platform. 	High Ongoing	Improved liaison with Coastal Management Committee	Improved communication and liaison
	P2	<p>Provide adequate funding and resources for implementation and maintenance of an appropriate risk management strategy, including:</p> <ul style="list-style-type: none"> routine geological inspections and survey monitoring exclusion fencing options around higher risk areas permanent warning signage retain the natural integrity of these cliffs and limit modifications review options for active slip zones. 	High Ongoing	Risk management strategy developed and implemented	Risk strategy in place
Topography/geology Public access Recreation Environmental/biodiversity Coastal natural heritage	P3	<ul style="list-style-type: none"> Council has undertaken a stability assessment of the north-east section of the headland. Extend scope of stability assessment to southern section of headland. 	High	Stability assessment covers the whole headland	Stability assessment covers all relevant locations
	P4	<ul style="list-style-type: none"> Continue to monitor Coastal Walk remedial landscape works for erosion impacts and cliff crest stability. 	Ongoing	Monitoring program in place	Monitoring results and audits
	P5	<ul style="list-style-type: none"> Address public safety and hazard reduction issues associated with the Emergency Helipad Area. Investigate options for this facility and potential for re-vegetation of this area. 	Low	Management strategy for helipad area developed in conjunction with potential relocation of radio facilities to Long Reef SLSC	Appropriate ongoing use for site determined
	P6	<ul style="list-style-type: none"> Investigate opportunities for improving emergency communications on the headland. 	Medium	Additional communications infrastructure requirements identified	Communication infrastructure meets requirements
Desired Outcome: To manage and protect dune stability and minimise modification of dune vegetation					
Public access Coastal natural heritage Environmental/biodiversity Recreation	Q1	<ul style="list-style-type: none"> Continue maintenance of protective dune fencing and chain boardwalks. 	Ongoing	Effective dune stabilisation	Monitoring of dune stability
	Q2	<ul style="list-style-type: none"> Continue to rationalise multiple tracking through the Long Reef Beach hind-dunes, upgrading public access and circulation with low-impact pathways/boardwalks and exclusion fencing. See items N8-N9. 	High	Path system rationalised and multiple tracking controlled	Monitoring of tracking through dunes
Environmental/biodiversity Remnant native vegetation Educational/scientific	Q3	<ul style="list-style-type: none"> Ensure protection of remnant hind-dune vegetation communities within designated ESA's and promote establishment of secondary species. 	High	Protection of vegetation within ESAs in dune areas Encourage species diversity	Vegetation condition assessments

Values	Item	Action	Priority	Performance Target	Performance measure
Desired Outcome: To review unleashed dog exercise area, facilities, safety and access					
Recreational Public access	R1	<ul style="list-style-type: none"> ■ Investigate feasibility and opportunities for funding improvements to drainage, dog safety fencing along Pittwater Road, dog exercise facility, additional faeces bins, signage and landscaping. 	High	Opportunities for enhancement identified and included in Council's strategic planning	Monitoring and access audits Recorded user complaints/comments
	R2	<ul style="list-style-type: none"> ■ Investigate exclusion of dogs from cliff and beach areas of Long Reef Headland (between the Greenlink Walk and mean high water mark) to protect bird and other fauna habitats. ■ Carry out public education to improve compliance with leash requirements outside off-leash areas. 	High	Develop strategy for dog management in environmentally sensitive areas and foreshore areas	Implementation of strategy.

Appendix 1: Griffith Park Landscape Masterplan



Appendix 2: Long Reef Surf Life Saving Club – site redevelopment options



Note: The shaded areas are indicative of location and are not intended to reflect the footprint of the proposed building.

Appendix 3: Implementation Strategies for Key Management Actions

Stormwater Management and Rationalisation Plan – Stage 2

Desired Outcomes

- To implement Local Catchment Management Strategy
- To promote and apply ecologically sustainable management practices

Implement Local Catchment Management Strategy

Strategy

- Support implementation of the second and final stage of the Stormwater Rationalization and Management Plan, noting that this strategy, although supported by Warringah Council, will not be funded by Council;
- significantly improve environmental quality and reduce public health risks at Fisherman's Beach;
- discharge clean, biologically filtered water to the Long Reef Beach outlet in accordance with the state government guidelines, noting that Long Reef Golf Course is responsible for only its own water quality management;
- following pond construction and soil disturbance, for a minimum of twelve months, monitor groundwater and surface water of the ponds for potential acid sulphate generating conditions;
- maintain pH, salinity and nutrient levels within recommended ranges;
- continue regular monitoring and control of water quality on all inlets (including off-course inlets), the course ponds and weir outlet at Long Reef Beach;
- continue to develop management practices which minimize elevated nutrient loadings, particularly nitrogen and phosphorus levels to reduce algal blooms; and
- address existing and future golf course water and irrigation requirements and establish water allocation according to geotechnical and asset management objectives.

Performance Measures

- Final stage of the strategy implemented in accordance with natural resources sustainability, and Total Catchment Management (TCM) principles;
- environmental quality significantly enhanced and public health risks minimized at Fisherman's Beach;
- clean, biologically filtered water discharged via the Long Reef Beach outlet in accordance with relevant authorities;
- potential acid sulphate generating conditions monitored in accordance with guidelines;
- water quality, pH, salinity and nutrient levels monitored and regulated within established ranges;
- elevated nutrient loadings progressively reduced in accordance with EPA guidelines; and
- existing and future golf course water and irrigation requirements managed in accordance with water resources sustainability and the overall enhancement of environmental qualities.

Promote and apply ecologically sustainable management practices

Strategy

- Investigate opportunities for habitat enhancement and threat abatement;
- continue effective management and control of Mosquito Fish population in accordance with its status as a "threatening process";
- develop a range of lagoon edge conditions/habitat opportunities to promote biodiversity values within the lagoon and adjoining constructed wetlands;

- establish further habitat surrounding the lagoon and create corridor linkages with other core areas and clusters of viable habitat; and
- continue to assess and minimize the impacts of pollution on biodiversity.

Performance Measures

- Habitat enhancement and threat abatement programmes maintained;
- effective management and control of Mosquito Fish population;
- increased range of environmental/ biodiversity values with enhanced capacity for educational, scientific and recreational values;
- lagoon/wetland corridor linkages to core areas of viable habitat established; and
- monitoring providing the necessary data to adjust the Strategy.

Proposed Golf Club Maintenance Shed

(subject to confirmation of funding for Stormwater Rationalisation Plan – Stage 2)

Desired Outcomes

- To optimise community values, access and safety
- To promote best practice management principles
- To protect and enhance environmental and biodiversity values

Optimise community values, access and safety

Strategy

- Ensure that facility development involves an innovative, low-key, integrated earthworks and grading design to substantially reduce the bulk and scale of the building, minimizing and containing site disturbance within the immediate building footprint;
- building footprint of new facility should not exceed the area covered by the existing facility;
- ensure that built form is controlled in accordance with the General Principles of Development Control in Warringah's LEP, the Desired Future Character of the Locality and the development standards set out in the Locality Statement;
- address Warringah's LEP traffic, access, safety and car parking items including on-site loading/unloading and design of car parking; and
- manage public risk management issues and ensure that vehicular access to the maintenance facility are managed to address public access issues.

Performance Measures

- Enhanced public access, circulation and safety.

Promote best practice management principles

Strategy

- Promote "best practice" principles in turf management, disease and pest management, horticultural and arboricultural techniques;
- control and manage the use of chemical pesticides, herbicides, fertilizers and ensure proper waste management disposal and storage of bulk materials; and
- address occupational health and safety issues.

Performance Measures

- "Best practice" principles implemented in turf management, disease and pest management, horticultural and arboricultural techniques;

- use of chemical pesticides, herbicides and fertilizers monitored and adjusted;
- waste management disposal and storage of bulk materials addressed; and
- occupational health and safety issues addressed.

Protect and enhance environmental and biodiversity values

Strategy

- Protection and management of Environmentally Sensitive Areas is based on identified environmental/biodiversity values, and is in accordance with the Bushland Management Plan for Coastal Headlands (Adam & Stricker, 1999), SEPP 19 Bushland in Urban Areas, Warringah LEP 2000 Schedule S3 Preservation of Bushland, Urban Bushland Management Plan (1990), and the Biodiversity Inventory (Enviroscape Consultancies, 2005).

Performance Measures

- Adjoining Banksia scrub/heathland protected from fragmentation;
- faunal corridors and habitat values protected; and
- combined golf course and community-based weed management/regeneration strategy implemented.

Fisherman's Beach

Values

- Natural and built heritage
- Landscape character
- Scenic qualities
- Beach aspect (shelter from southerlies)
- Faunal habitat & biodiversity
- Remnant littoral vine thicket
- Educational & scientific
- Historic & social
- Recreational (particularly water-based)

Role

Fisherman's Beach is a protected, north-facing beach of outstanding aesthetic and picturesque qualities, offering access to adjacent rock platforms, the Long Reef Aquatic Reserve and boat ramp ocean access. The area has an inherent simplicity and charm, with strong cultural heritage links to fishing as well as broader recreational, educational and environmental values.

Desired Outcomes

- To address leases and development appropriately
- To protect and enhance the unique character, environmental integrity, scenic quality and heritage values
- To address public access and safety and improve pedestrian circulation
- To address parking congestion and local traffic management
- To improve quality of recreational facilities and amenities
- To reduce stormwater pollutants and minimize health risks on the beach
- To effectively manage large groups and promote educational opportunities

Address leases and development appropriately

Strategy

- Proposed development should be consistent with the General Principles of Development Control in Warringah LEP 2000; the Desired Future Character of the Locality for the use of public open space; and Development Guidelines as per Table 7, Items E1-E6 and F1, of the Griffith Park Plan of Management, February 2011;
- ensure that all current and future lease proposals and permits for commercial activities, filming or special events are:
 - in accordance with Crown policies and Council adopted policy and permitted uses;
 - in keeping with the public recreation purpose of the land;
 - do not alienate public open space;
 - have a component of community benefit; and
 - demonstrate a clear nexus between the activity and the coastline;
- provide an appropriate public forum for discussion of lease and development issues and clearly define the scope and impact of any proposals;
- address all issues of exclusivity and ensure that facilities have multiple access with no barriers to ages, sex, family and socio-economic groups;
- ensure consultation with the Crown on the drafting of leases;
- address all development application issues and impacts affecting the recognized values of this precinct, including compliance with Warringah's LEP provisions for Development in the vicinity of Heritage Items;
- ensure that public access issues are addressed; and
- continue investigations into the current use of the Warringah Surf Rescue Building by Warringah Council's Beach Services.

Performance Measures

- All improvements, upgrading and renovations to existing facilities are balanced and equitable;
- current and future lease proposals and permits thoroughly assessed on the basis of established criteria;
- issues of exclusivity and need for multiple access addressed;
- leases drafted in consultation with the Crown;
- development issues and impacts reviewed and assessed; and
- public access to all facilities and buildings.

Protect and enhance the unique character, environmental integrity, scenic quality and heritage values

Strategy

- Develop the community's understanding of heritage as an integral component of Griffith Park's changing landscape, scenic and environmental character;
- use best practice standards for identification, assessment and management of heritage items;
- monitor listed heritage items to ensure they are conserved in accordance with statutory heritage requirements, including:
 - Fisherman's Hut and associated fishing infrastructure; and
 - significant cultural trees/ plantings, including all informal plantings of mature Norfolk Island Pines (*Araucaria heterophylla*) and remnant hillside occurrences of Century Plants (*Agave americana*).
- implement strategies for the protection and management of natural heritage and biodiversity;
- provide assistance in the education, protection and management of all cultural plantings associated with the early Fishing settlement;
- support the "Reefcare" network of volunteers, the Anglers Action Group, Long Reef Fishermans Club and other local community groups in the management and protection of heritage values;
- support efforts by community groups in rehabilitation and enhancement of habitat values as appropriate;

- monitor current mowing and edging maintenance practices which are likely to impact on natural regeneration and consolidation of remnant habitat; and install temporary protective fencing, implement appropriate weed management regime and mulch to promote regeneration; and
- develop education material in remnant bushland management techniques.

Performance Measures

- Broader community recognition of unique natural and cultural heritage;
- heritage items given effective protection, and management and rehabilitation measures implemented;
- cultural plantings associated with the early Fishing settlement protected and managed;
- assistance provided to local community groups, clubs and volunteers involved in heritage protection, management and rehabilitation;
- efforts by community groups seeking grant funding supported by Council; and
- maintenance practices reviewed and modified in accordance with the Biodiversity and Heritage Management Strategies.

Address public access and safety and improve pedestrian circulation

Strategy

- Continue to improve the quality of public access, recreational linkages and pedestrian circulation, providing appropriately designed pathways, interpretive and directional signage, landscaping and recreational facilities;
- address issues of public safety and identify points of conflict between vehicles and pedestrians, including disabled access, golfers and buggies;
- facilitate pedestrian access and provide well-designed, integrated pedestrian pathways/linkages and signage including:
 - prevent any parking, including delivery vehicles, along this pedestrian access and strictly enforce parking regulations;
 - link this access pathway to the top eastern car park area and the headland section of the Coastal Walk; and
 - secondary pathway link to the Fisherman's Beach eastern car park, public amenities, Surf Rescue Building and the eastern beach/rock platform entry point.

Performance Measures

- Enhanced recreational opportunities for the public;
- increased level of satisfaction by user groups; and
- public safety and points of traffic/pedestrian conflict addressed providing a safer pedestrian environment.

Address parking congestion and local traffic management

Strategy

- Investigate opportunities for establishing additional public parking in the Anzac Avenue cul-de-sac, east of Seaview Parade;
- ensure regular liaison with local fishing clubs in relation to boat ramp access and parking issues;
- examine opportunities for improved traffic management, control and parking of "peak-period" private buses in this area during the school summer months;
- ensure that boat drivers and personal water craft users (eg. jet-skis) comply with the Safety Equipment, Pollution and Water Traffic Regulations (including registration and licensing requirements); and
- investigate opportunities for rangers to enforce local regulations, manage user group conflicts, ease congestion and facilitate movements at the boat ramp during peak summer holidays and weekends.

Performance Measures

- Reduced parking problems and congestion in Anzac Avenue;
- improved communications with boat ramp user groups;
- improved traffic management, control and parking of private buses;
- parking and user group conflicts at the boat ramp reduced and managed more effectively;
- enforcement of regulations by rangers, particularly during peak boat ramp use.

Improve quality of recreational facilities and amenities

Strategy

- Implement a co-ordinated and integrated approach to recreational facilities design, protecting values whilst enhancing recreational opportunities;
- maintain existing recreational facilities and open space to a high standard, consistent with community expectations and having regard to public safety;
- rationalise existing signage and develop consistent with well-designed, graphically illustrated identification, directional and interpretive signage, including the use of maps; and provide information with recognisable typeface and fonts, simple phrasing and sensory options; and develop multi-lingual signs on the basis of the most commonly spoken languages;
- construct well-graded pathways in low-impact materials and finishes, using only stable and durable materials such as cement-stabilized, compacted decomposed granite or integrally coloured concrete in a matched tint;
- ensure that landscape works do not create further edge disturbances, increase erosion, or lead to fragmentation of habitat and weed encroachment problems;
- improve visual amenity by landscaping and screening car park areas and entry points using appropriate indigenous species;
- improve shade opportunities for large groups, by planting appropriate semi-mature shade trees, noting that no shade structures are to be constructed in this location;
- investigate opportunities for funding and upgrading existing public amenities, improving their physical appearance, access (including disabled access), floor and ceiling ventilation, natural lighting, level of cleanliness, general repair and maintenance;
- upgrade recreational facilities such as seating, picnic tables, litter bins (standardized bins with lids) and frequency of rubbish collection to cater for seasonal increases in visitor numbers; and
- incorporate litter collection procedures and conditions into special event/reserve hire approvals.

Performance Measures

- Recreational facilities and open space maintained in accordance with appropriate asset standards;
- co-ordinated approach to the design of recreational facilities implemented;
- design of a signage system rationalized and implemented;
- pathways constructed ensuring minimal impacts, using appropriate materials and finishes;
- screening/landscaping of car park areas implemented;
- additional shade and shelter for large groups provided;
- existing public amenities upgraded with an improved level of maintenance;
- ongoing upgrade of recreational facilities on a co-ordinated basis rather than ad hoc replacement;
- enhanced recreational experience for visitors and local community; and
- litter collection issues addressed.

Reduce stormwater pollutants and minimize health risks on the beach

Strategy

- Implement second and final stage of Stormwater Rationalization Programme, subject to funding approval, and reduce pollutant discharge/stormwater erosion of the beach and reduce health risk to children and families using the beach.
- **Performance Measures**
- Second final stage of Stormwater Rationalization Programme implemented;
- pollutant discharge/stormwater erosion of the beach addressed; and
- reduced health risk to children and families.

Effectively manage large groups and promote educational opportunities

Strategy

- Investigate opportunities to improve regulation, control and supervision of the large numbers of private buses and children arriving at Fisherman's Beach throughout the summer months; and
- continue to promote community programmes about responsible use of the beaches and rock platforms, fishing, bait collection, water safety and dune stabilization.

Performance Measures

- Improved facilitation of large groups;
- promotion of school-based environmental and heritage education programmes providing long term benefits for the community; and
- continuation of community education programmes leading to improvements in environmental management and sustainability.

Headland Cliffs, Beaches and Rock Platforms

Values

- Natural heritage and landscape character
- Beaches, cliffs and dunes adjacent to Long Reef Aquatic Reserve
- Scenic qualities
- Environmental context and coastal processes
- Topography, geological formations and soils
- Remnant bushland and faunal habitat and biodiversity
- Educational and scientific
- Recreational

Role

The cliffs and beaches surrounding Long Reef headland create a physical buffer between the upper headland recreational corridor and the expansive inter-tidal rock platforms. It is an escarpment landscape of unique regional significance with important scientific, educational and recreational values.

Desired Outcomes

- To protect and enhance the unique character, environmental integrity and scenic values
- To address headland instability, public safety and risk management
- To improve pedestrian linkages, circulation and signage

Protect and enhance the unique character, environmental integrity and scenic values

Strategy

- Recognise the inherent instability of the steep cliffs and dunes and address vulnerability of soils to erosion and the implications for management;
- identify cliff stability management practices which may potentially threaten the ecological processes of the inter-tidal rock platform or remnant cliff vegetation;
- notify and liaise with relevant State agencies with regard to cliff-line risk management, particularly for methods of accelerating active slip zones, which may cause extensive sedimentation of inter-tidal rock platform;
- investigate opportunities to enhance Long Reef Aquatic Reserve through cooperation between The Department of Environment, Climate Change and Water (Aquatic Protected Areas Section) and Warringah Council in order to promote sustainable management; and
- address litter collection issues.

Performance Measures

- Broad recognition of headland instability and vulnerability of soils to erosion;
- implementation of appropriate cliff stability management practices;
- improved management and protection of the inter-tidal rock platform; and
- litter collection issues addressed.

Address headland instability, public safety and risk management

Strategy

- Provide adequate funding and resources for implementation of an appropriate risk management strategy to minimize as far as possible ongoing risk levels to users of the headland, as recommended by LongMac Associates in their report "*Long Reef Headland: Stability Assessment of Northern and Eastern Cliffs*" (November, 1998) including the following:
 - conduct routine geological inspections supported by detailed survey monitoring along the cliff crest, slopes and public access track in the vicinity of the cliff crest;
 - maintain exclusion fencing around higher risk areas along the cliff crest to establish a safety buffer zone, facilitating bush regeneration, reducing trampling and improving soil stabilization;
 - maintain signage warning of potential cliff face hazards due to landslide, rockfall and ledge collapse at the crest and toe of the cliff face. Warning signage should be integrated with all other signage in the Reserve, clear and easily interpreted. Investigate multi-lingual options and graphics to target the range of ethnic groups;
 - retain the natural integrity of these cliffs and limit earthworks and drainage modifications;
 - investigate options for accelerating active slip zones. Ensure thorough liaison with The Department of Environment, Climate Change and Water;
- eliminate ad hoc solutions to ongoing environmental/management issues; and
- establish effective mechanisms for monitoring and adjusting this risk management strategy.

Performance Measures

- Implementation of an appropriate risk management strategy to minimize as far as possible ongoing risk levels to users of the headland;
- stability assessment and risk management strategy extended to include the southern portion of the headland (note that an assessment of the north-east section of the headland has been carried out);
- ad hoc solutions to ongoing environmental/management issues addressed; and
- effective mechanisms for monitoring and adjusting the strategy implemented.

Improve pedestrian linkages, circulation and signage

Strategy

- Maintain existing connecting tracks to beaches below the main lookout and at the eastern end of Fisherman's Beach;
- continue to develop an integrated system of identification, directional and interpretive signage, including the use of maps and information on the area's unique biodiversity, geology and history;
- continue weed management, feral pest control and bush regeneration;
- continue to monitor feral rabbit control programme and where necessary, repeat strategy as previously conducted;
- implement an effective weed management programme to eliminate invasive Bitou Bush (*Chrysanthemoides monilifera*) on the high dunes, ensuring that funding provides for long term removal of exotic seedlings and establishment of locally-sourced indigenous tubestock; maintain existing protective fencing and install appropriate signage; and
- ensure that all safety and risk management issues are thoroughly addressed in cliff-line environmental/rehabilitation work.

Performance Measures

- Existing connecting tracks maintained and upgraded regularly;
- design of signage system rationalized and implemented; and
- enhanced recreational experience for visitors and local community.

Long Reef Headland (including Coastal Walk)

Values

- Unique natural heritage and landscape character
- Extensive views of the coastline/ scenic qualities
- Environmental context & coastal processes
- Grandeur, scale and strong "sense of place"
- Sense of isolation from surrounding urban development
- Fresh air and openness
- Topography, geological formations & soils
- Remnant bushland
- Faunal habitat & biodiversity
- Educational
- Recreational

Role

This area forms a narrow "U-shaped" recreational corridor, located between the cliff edge and the golf course lease boundary. It provides an integral linkage for public access, forming part of the Coastal Walk between Long Reef Beach and Fisherman's Beach. The area offers a diverse range of recreational opportunities within a unique and fragile natural coastal environment.

Desired Outcomes

- To protect and enhance the headlands unique landscape character, its "sense of place", environmental integrity and scenic values
- To promote equity and ensure provision of adequate recreational opportunities for the non-golfing public
- To address headland instability, enhance public safety, circulation and risk management

Protect and enhance the headlands unique landscape character, its “sense of place”, environmental integrity and scenic values

Strategy

- Recognize the inherent instability of the steep cliffs, address vulnerability of soils to erosion and the implications for management;
- protect all remnants of the indigenous heathland and grassland communities under the Environmentally Sensitive Area provisions;
- assess any proposed broad-scale earthworks and re-contouring of the headland in relation to identified values and geotechnical assessment;
- continue to liaise with hang-gliders, para-gliders, model aircraft enthusiasts and other user groups to address safety and risk management; and maintain and monitor designated areas to minimize damage to the cliff crest;
- review and monitor recreational pursuits and activities which may seriously exacerbate erosion damage, cause potential conflicts or compromise safety for other user groups;
- review priorities for further public artworks and embellishment in relation to other value adding options, such as improvements to pedestrian circulation, public safety and recreational facilities.

Performance Measures

- Recognition of headland instability and vulnerability of soils to erosion;
- remnants of indigenous heathland and grassland communities protected;
- implementation of appropriate cliff stability management practices;
- proposed broad-scale earthworks and landscaping reviewed with appropriate strategies implemented;
- ongoing communications with recreational user groups; and
- recreational activities and status of designated areas regularly monitored.

Promote equity and ensure provision of adequate recreational opportunities for the non-golfing public

Strategy

- Continue to address access issues related to the Coastal Walk;
- review opportunities for the enhancement of access and recreational facilities for the non-golfing public;
- clearly identify existing survey markers to define leased boundaries; and
- retain flexibility in determining golf course leased boundaries.

Performance Measures

- Access issues monitored and regularly reviewed;
- ongoing collaboration for enhancement of access and recreational facilities;
- enhanced recreational experience for visitors and local community; and
- leased boundaries clearly defined.

Address headland instability, enhance public safety, circulation and risk management

Strategy

- Review all current and proposed remedial/landscape works in relation to recommendations in the LongMac Associates report “*Long Reef Headland: Stability Assessment of Northern and Eastern Cliffs*” (November, 1998);

- determine priorities for risk management based on geotechnical investigation and monitoring;

Remedial/landscape Works Area and Main Lookout

- conduct performance monitoring into the possible impacts associated with newly constructed earthworks, sedimentation ponds, altered watering regime (automatic irrigation system) implemented under remedial/landscape works;
- monitor cliff crest instability and erosion impacts, particularly within concentrated recreational use areas, including the designated Model Aircraft Soaring Launching and Landing Areas, the Hang Glider Launch and Landing Site and lookouts;
- continue to review management strategy for these areas;
- ensure adequate maintenance of eastern access to beach from the main lookout, and improve directional signage, including the use of maps for the Coastal Walk;
- protect and manage remnant low coastal heathland and grassland; and
- investigate opportunities for installing an emergency communications device near the 16th tee or other suitable location; and ensure a simple, low-key, vandal-resistant design;

Southern Headland Proposed Remedial Works

- extend geotechnical investigation and public risk assessment of cliff crest stability, drainage and earthworks for the southern section of the headland; and
- prior to preparing detailed design development and documentation of remedial and landscape construction works, review options for Coastal Walk improvements, based on the geotechnical and risk management assessment;

The “Bottleneck” (Long Reef Beach - Headland Access)

- control unrestricted access and trampling of the headland’s fragile soils and vegetation;
- clearly define public access and avoid ambiguity;
- maintain appropriate signage with interpretive information explaining Long Reef’s unique geology, soils and vegetation, and encouraging the public to use the designated pathway (boardwalk); and
- re-vegetate eroded cliffs and dunes using locally-sourced indigenous grasses, sedges, groundcovers, climbers and low heath plants in accordance with the Biodiversity Strategy;

The “Pinch Point” (Pedestrian Access over the Stormwater Channel)

- install appropriate signage, using maps, to ensure that visitors are able to easily reference their location in relation to the golf course leased boundaries, adjacent fairways, tees and greens;
- monitor 17th fairway safety and risk management issues; and
- provide appropriate indigenous buffer planting in accordance with the Golf Course Biodiversity Strategy.

Performance Measures

- Implementation of an appropriate risk management strategy to minimize as far as possible ongoing risk levels to users of the headland; and
- priorities for risk management implemented.

Long Reef Beach and Foredues

Values

- Natural heritage and landscape character
- Scenic qualities and isolation
- Environmental context and coastal processes
- Remnant indigenous dune vegetation
- Recreational
- Faunal habitat & biodiversity
- Educational & scientific research

Role

This area covers the northern end of Long Reef Beach and a remnant dune system between Dee Why Lagoon and the southern end of Long Reef headland. Although this area has a summer recreational focus, it is popular with surfers all year round with access to a number of beach and reef breaks. Its outstanding scenic qualities and isolation are highly valued for passive recreational pursuits. The remnant dunes also offer opportunities for habitat and biodiversity enhancement.

Desired Outcomes

- To manage and protect dune stability and minimize erosion impacts
- To provide and maintain safe and easy beach access
- To address public safety and risk management
- To minimize modification of remnant dune vegetation and promote biodiversity opportunities

Manage and protect dune stability and minimize erosion impacts

Strategy

- Minimize dune instability, erosion and sand-drift problems through developing an enhanced dune protection, rehabilitation and re-vegetation strategy (refer to Golf Course Biodiversity Strategy).

Performance Measures

- Stabilised and vegetated dunes that address sand drift problems and provide greater protection from wave action and erosion during periodic storm activity;
- reduced potential for further spreading of weeds through dunes; and
- extended secondary re-vegetation of the dune corridor creates vital faunal habitat and an integral link in the Biodiversity Strategy.

Provide and maintain safe and easy beach access

Strategy

- Improve pedestrian safety, control and circulation through adjoining hind-dune areas and along the emergency (service) vehicle road;
- ensure all pathways/tracks are well-graded and drained, using sympathetic, low-key and durable materials; and
- install appropriate directional and interpretive signage.

Performance Measures

- Pedestrian safety and circulation significantly enhanced through a network of clearly designated pathways and signage; and
- improved recreational experience and educational opportunities.

Address public safety and risk management

Strategy

- Monitor public safety and risk management issues along the adjoining emergency vehicle road and provide appropriate vegetative buffers along southern leased boundary to 17th fairway;
- support beach safety operations and education; and
- continue to monitor water quality discharge at stormwater outlet.

Performance Measures

- Public safety and risk management issues adjacent to the emergency (safety) vehicle road addressed;
- beach safety operations and education supported and maintained; and
- water quality at stormwater outlet monitored and controlled.

Minimise modification of remnant dune vegetation and promote biodiversity opportunities

Strategy

- Maintain Environmentally Sensitive Area covering the fragile dune system and adopt strategies for the protection and management of natural heritage and biodiversity;
- support Warringah's Friends of the Bush Volunteers, principally Reefcare in rehabilitating and enhancing habitat values, and reinforce faunal corridors along the dune system linking Dee Why Lagoon and the Long Reef headland;
- protect remnant Coast Beard-heath (*Leucopogon parviflorus*) within lee-side swales of the foredunes and adjacent to the emergency vehicle (service) road;
- manage secondary hind-dune vegetation, reinforcing structural composition and species diversity;
- continue to monitor feral rabbit control programme and where necessary, repeat strategy as previously conducted to assist in bush regeneration and rehabilitation; and
- improve education in secondary dune re-vegetation and management.

Performance Measures

- Environmentally Sensitive Area maintained;
- appropriate biodiversity strategies implemented;
- efforts by "Reefcare" in seeking grant funding, supported by Council;
- habitat values and faunal corridors enhanced;
- remnant Coast Beard-heath (*Leucopogon parviflorus*) protected;
- feral rabbit population monitored and controlled; and
- secondary dune re-vegetation and management implemented.

Long Reef Beach SLSC and Carpark

Values

- Formalised beach access and parking
- Public recreation facilities and amenities
- Beach safety
- SLSC clubhouse and social focus
- Recreational

Role

This area provides formalized access and parking to Long Reef Beach. The Surf Life Saving Club (SLSC) offers an important social focus to its primary function of surf life saving. This area also provides a range of recreational facilities and amenities to cater for all-year round and seasonal peak public demand.

Desired Outcomes

- To address lease issues
- To address parking congestion and local traffic management
- To improve quality of recreational facilities, amenities and shade
- To enhance environmental and biodiversity values

Address lease issues

Strategy

- Continue to liaise with the Long Reef Beach SLSC to encourage and promote broad community access to the surf club building and its facilities;
- review opportunities to undertake improvements and changes to operations to facilitate broader community objectives;
- future leases should be consistent with the Warringah LEP and Development Guidelines as per Table 7, Items E1-E6 and F1, of the Griffith Park Plan of Management, February 2011;
- ensure that all current and future lease proposals and permits for commercial activities, filming or special events are:
 - in accordance with Crown policy, item F1 of the Development Guidelines of the Griffith Park Plan of Management (February 2011) and permitted uses;
 - in keeping with the public recreation purpose of the land;
 - do not alienate public open space;
 - have a component of community benefit; and
 - demonstrate a clear nexus between the activity and the coastline;
- address issues of exclusivity and ensure that facilities have multiple access with no barriers to ages, sex, family and socio-economic groups;
- ensure consultation with the Crown on the drafting of leases;
- address issues and impacts affecting the recognized values of this area; and
- ensure that public access issues are addressed.

Performance Measures

- Broader community access to the surf club building and its facilities;
- all improvements, upgrading and renovations are balanced and equitable;
- current and future lease proposals and permits assessed on the basis of established criteria;
- issues of exclusivity and need for multiple access addressed; and
- future leases drafted in consultation with the Crown.

Address parking congestion and local traffic management issues

Strategy

- Address summer weekend and public holiday peak visitor loadings, traffic congestion and parking problems within the car park area and overflow areas, including open grassed areas and parking in Pittwater Road (southbound);
- monitor impact of changes to “Pay and Display” on revenue base;
- review options for extending an overflow car park into the grassed area (west of the existing Long Reef car park); ensure that the layout and materials are low-key and sensitive to the location with adequate planting bays placed every 6-7 cars; and review options to maintain the overflow car park as a grassed area with stabilisation with porous materials as required;
- upgrade public access, signage and pedestrian circulation;
- rationalize existing signage and develop consistent, identification, directional and interpretive signage;
- develop a rational, low-key system of pathways linking the car park and SLSC to the following areas:
 - western steps to Pittwater Road;
 - along the car park access road to Pittwater Road (providing a link with a proposed pedestrian pathway along Pittwater Road); and
 - investigate opportunities to create a bushland circuit track, linking with Dee Why Lagoon;
- construct pathways in low-impact materials and finishes, using only stable and durable materials such as cement-stabilized, compacted decomposed granite or integrally coloured concrete in a matched tint; and

- ensure that landscape works do not create further edge disturbances, increase erosion, or lead to fragmentation of habitat and weed encroachment problems.

Performance Measures

- Peak visitor loadings, traffic congestion and parking problems addressed;
- overflow car park options reviewed and managed in accordance with traffic management recommendations; and
- impact on revenue base monitored.

Improve quality of recreational facilities, amenities and shade

Strategy

- Investigate opportunities for funding an upgrade of existing public amenities, improving their physical appearance, access (including disabled access), floor and ceiling ventilation, natural lighting, level of cleanliness, general repair and maintenance;
- continue to systematically upgrade recreational facilities such as seating, picnic tables/seating, litter bins (standardized bins with lids) and frequency of rubbish collection to cater for seasonal increases in visitor numbers;
- incorporate litter collection procedures and conditions into special event/reserve hire approvals;
- maintain existing recreational facilities and open space to a high standard, consistent with community expectations and having regard to public safety;
- continue to support beach safety operations; and
- continue to improve opportunities for shade within the car park area, using salt-tolerant, locally-sourced indigenous trees.

Performance Measures

- Beach safety operations supported and maintained;
- co-ordinated approach to the design of recreational facilities implemented;
- additional shade and shelter provided;
- existing public amenities upgraded with an improved level of maintenance;
- ongoing upgrade of recreational facilities;
- enhanced recreational experience for visitors and local community; and
- litter collection issues addressed.

Enhance environmental and biodiversity values

Strategy

- Adopt strategies for the consolidation of faunal corridors through adjacent open grassed area;
- review current mowing and edging maintenance practices which are likely to impact on natural regeneration and consolidation of remnant habitat; and install temporary protective fencing, implement appropriate weed management regime and mulch to promote regeneration; and
- improve education in remnant bushland management techniques.

Performance Measures

- Adoption of appropriate biodiversity strategies to consolidate faunal corridors;
- habitat values and faunal corridors enhanced;
- feral rabbit population monitored and controlled; and
- maintenance practices reviewed and modified in accordance with the Biodiversity Management Strategy.